VR and Nostalgia: Using animation content at theme parks to boost visitor experience

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Abstract

Interviews with experts and visitors conducted using a convenience sampling method were combined with archival research to understand the effect of adding VR technology to Korean theme park attractions, as well as to look at how nostalgic attributes in animation content can enhance the immersive experiences of the visitors. The interviews showed that having sophisticated, narrative driven, high-quality content is more important to visitors than the extent to which the VR technology is state-of-the-art. Findings also suggest that adopting existing well-known animation content to VR attractions will result in visitors experiencing better emotional connectedness, enhanced presence, and fuller immersion. Finally, ensuring that the quality-driven VR content evokes nostalgia will lead to repeat visitation by visitors.

Keywords: VR, animation, nostalgia, theme park, Lotte World

1. Introduction

The theme park industry has experienced tremendous change recently. Technology has been advanced in order to appeal to more guests by providing an immersive experience, with virtual reality (VR) being one of the most highly adopted innovations. At theme parks, visitors enjoy virtually tailored attractions incorporating animation or movie content. With strong storytelling and content, the audience can be induced to conjure up strong individual memories and be influenced in their decision as to whether to revisit (Oh & Ma, 2018). Thus, the design of a VR attraction can have important strategic implications (Uriely, 2005) for an industry that has long searched for ways to provide visitors with more memorable experiences (Christou et al., 2018) and to motivate them to visit specific destinations (Hsu, Cai & Wong, 2007; Yoon & Uysal, 2005).

In order to evoke strong memories, according to the interview with Mr. Chris Yoshii who is a vice president of AECOM Asia Pacific, software (theme and content) must not be neglected in the focus on hardware (rollercoaster rides, etc.). Strong memories are evoked by a stimulus that not only provides a heightened immersive experience, but also has the nostalgic attributes of inducing sentimental feelings and promoting emotional connectedness (Oh, 2013). If the media content in a VR attraction is filled with these nostalgic components, viewers will more likely become emotionally attached

and interested in it. If, however, a park has no robust theme, and relies instead on simply enhancing old-fashioned attractions such as rollercoasters and water rides with VR, no strong emotional connection will result (Oh & Ma, 2018).

Animated films by themselves often have a nostalgic effect that can be amplified when their content is part of a theme park setting. Animation content creates and materializes fantasy; it provides a surreal effect and non-reality that delights its audience (Oh, 2013). Such a capacity for creating a new reality brings to mind Umberto Eco's statement that theme parks are the perfect fake environment to recreate a perfect reality (Eco, 1990). Oh and Ma (2018) postulate that Eco's view of theme parks is associated with the ability of animation to realistically mimic reality. Jean Baudrillard (1994) adds that a theme park is also a place where people perceive the blurriness between reality and its representation, the world of hyper-reality and simulation.

In the course of this research, expert interviews and archival research were conducted to explore how marrying together VR applications, quality animation content, and nostalgia can produce an enhanced and immersive audience experience, and repeated visits, in a theme park setting.

2. Literature Review

2.1 The use of VR in theme park attractions

The theme park has been considered the originator of the imaginary as virtual reality (Baudrillard, 1996) since the first Disneyland opened in Anaheim, California in 1955. Disneyland theme parks started telling animation stories within their attractions through film techniques comprised of sequences of full shots, medium shots, and close-up shots, much like the cinematography of a film (Hine, 1986). Parks have since adopted ride simulators, VR technology, and a variety of state-of-the-art attractions, ranging from dark rides such as Peter Pan's Flight to mechatronic puppets such as Animatronics (Levine, 2018). With these high-end technologies, theme parks are able to provide visitors with quality-oriented immersive experiences that tell stories more effectively than ever before (Clavé, 2007).

 People visit theme parks to forget about their mundane daily lives, and to meet their favorite animation characters from childhood and interact with them within a specially designed space. These interactions evoke nostalgic memories and generate emotion, and the memories can be rediscovered by the visitors themselves through fantasy (Francois Barre, qtd. in King & O'Boyle, 2010, p26). VR technology can enrich a visitor's experience of materializing the fantasy when high-quality content is featured.

Theme parks that employ VR technology are attractive to both the industry and to guests who enjoy motion simulation rides that incorporate media content (Chang and Kim, 2018). Kim (2016) noted "the power of VR to easily create simulacra, stimulate various senses, increase the feeling of immersion, synchronize motion with storytelling, communicate interactively, change themes easily, provide physical stability, and save space" (p.42). Simply speaking, VR enhances the experience of theme park attractions (Jerald, 2016). A virtual environment helps theme park visitors become immersed in the attractions, and the quality of the VR content (Hopf, Scholl, Neuhofer & Egger,

2020) can create a heightened feeling of fantasy (Swartznan, 1995) and an intensified sense of presence.

2.2 Animation and VR content to evoke visitor nostalgia

Animation itself is virtual reality created by illusion and fantasy. Paul Wells (1998) notes that animation as a medium is completely fake because it has 'no real camera to record reality but artificially creates and records its own' (p. 25). It creates many different characters and brings them to life by an illusion of movement (Wells, 1998), which is why memories of familiar animation characters from childhood persist into adulthood.

According to Alistair Swale (2015), nostalgia is about conjuring familiar personal events or historical events that have nothing to do with personal memories. Walden (2018) argues that animation helps us to reminisce about the past, and it can represent dimensions of different types of memories, including nostalgia. Animation, with its artistic style and story, can cause personal memory to become warmer and filled with longing. Svetlana Boym (2001) points out that nostalgia is not only longing for a place, but also yearning for childhood. Animation, due to the nature of the medium, allows audiences to immerse themselves in personal and historical nostalgia through the animators' use of aesthetical elements. Hence, employing animation content via a VR application in a theme park setting evokes personal nostalgia of childhood memories.

Theme parks began providing VR and surreal experiences via cinematic imageries on rollercoasters at a very early stage (Levine, 2018). Thomas Hine (1986) states that Disneyland's The Magic Kingdom was not designed by architects, but by animators: not as a group of buildings, but as an immersive experience. It was "a movie that could be walked into." (Hine, 1986, p.151) Animators were able to imagine and embed non-physical animation fantasy into physical attractions right from the initial planning stage (Clavé, 2007, p.17). Another special aspect of the theme park environment is that visitors interact with animation characters – who never grow old or die – and thereby experience a nostalgic trigger based on their own memories (Oh & Ma, 2018). With characters that are forever young, an audience can go back to an earlier time that is no longer accessible to them. Visitor emotions and fantasies can be realized and strengthened by themed attractions that are comprehensively and strategically designed and controlled. Recent technological advancements in the VR field, such as Head-Mounted Displays (HMD) with immersive environmental settings, can be used to magnify feelings of nostalgia and create an enhanced visitor experience (Huang et al., 2020).

2.3 VR attractions at Korean theme parks

Theme parks in Korea have invested in new attractions, new high-end technologies, and more events as strategies to attract more visitors (Lee, 2019); the experts cited all emphasize that creating emotional attachment with strong content is a top priority. The director of EVR Studio Seoul, Jae-Wook Park, states that producing high-quality customized content for a VR attraction is critical (2020), not only in Korean theme parks but also for other countries. Applying VR technology to theme parks in Korea, however, is especially challenging because the kind of robust content needed to provide

a prolonged and heightened immersive visitor experiences is still lacking (Oh & Ma, 2018). Additionally, Mr. Park stresses that merging existing motion-based systems with VR technology requires content that is designed to perfectly follow the motion (Nelson, 2016) However, it is challenging to create even 1-2 minutes of computer-generated animation perfectly synchronized with an audience's field of vision and movement, without causing vertigo (Ma, 2017).

In 2016, the Lotte World theme park in Korea opened its VR rollercoasters, 'French Revolution 2 VR', 'Gyro Drop 2 VR,' and 'Across Dark.' Seung-Yeon Lee, the head of Lotte World's VR business team, explains that they introduced VR because it is easy, interactive, fast, flexible, effective, and low cost (Shim, 2017). Lee also believes that applying VR to existing attractions has, at least in the short run, the same impact as introducing entirely new attractions (Shim, 2017). However, a number of researchers have expressed concern that simply adding a new technology without solid content storytelling will not attract long-term guests or guarantee revisits (Kim, 2016; Kim & Han, 2017; Chang & Kim, 2018). VR attractions in Korean theme parks do not display any narrative strategies, which requires thorough planning and development. According to the Korean VR & AR Market Report from the Korea Institute of Intellectual Property (Yim, 2019), facilities that provide VR experiences have not yet emerged as a market and thus still need funding support from the Korean government. The VR field in Korea is still in its infant stage, and it will require time and much effort to create high quality content that can mesh well with the technology in a Korean theme park context.

2.4. Theoretical framework

Several elements go into an effective story telling environment. Unification provides coherency by using a consistent style of architecture and atmosphere throughout, in the attractions as well as in secondary locations such as food and retail outlets. Mise-en-scène encompasses all aspects of the general surroundings which makes visitors feel as if they are inside a movie. Dépaysement is a component of Surrealism that creates a mysterious or strange encounter with a realistic object in an alienated place. These three elements, enhanced by VR, are the external stimuli that support the immersive experience and sense of presence that visitors long for.

Choi (2017) suggests that a unified design with a strong theme is the most fundamental and vital attribute for storytelling in theme parks. He particularly highlights the 'theme' aspect of the message that the theme park designer wants to convey, as that message creates a park's distinctiveness. A unified structure helps the story express the theme more efficiently.

Chazaud (1998) argues that the theme must be rich enough to demonstrate mise-en-scène as a whole. A holistic design that gives the audience a cinematic experience is crucial in order to provide coherent and unified characteristics within the identity of the park. The theme must also be versatile regarding the visitors, media content (animation), and entertainment, and it must cater to the visitors via scenic or dramatic stages. The contribution of mise-en-scène is to create key elements such as dépaysement, escapism, fantasy, imagination, immersion, nostalgia, surrealism, and verisimilitude. Mise-en-scène is one of the most important factors in producing the right atmosphere for a theme park.

King (2007, 837) writes that the "theme park is a social artwork designed as a four-dimensional symbolic landscape to evoke impressions of places and times, real or imaginary." King also emphasizes that a theme park should not simply add random rides, but that it needs to be planned thoroughly to secure its thematic integrity (King & O'Boyle, 2010). The theme must be unified to provide visitors with a complete fantasy. This echoes Coltier's definition (1985, 24), which specifies the theme park as "a closed universe whose purpose is to succeed in the encounter between the dreamy atmosphere it creates and the visitor's desire for dépaysement." The biggest goal of visiting a theme park or any other touristic destination is to remove tourists from their mundane lives, in other words, escapism (Huang, Wei & Leung, 2020).

Oh and Ma argue that using animation content in theme parks is an effective way to create dépaysement, as there are overlapping factors between the two media. The commonalities between theme park attractions and animation narratives are 1) fantasy, 2) immersion, and 3) verisimilitude (Oh & Ma, 2018). These attributes strengthen the original purpose of theme parks - escapism, imagination, and nostalgia – resulting in a stronger theme.

Cho (2012) describes a theme park as a sensational space where visitors can experience an exciting fantasy, and where animation characters can be a significant element in delivering the desired image of the space. In other words, there is an inseparable relationship between a theme park and its animation characters, with the characters manifesting their identity through the park.

Oh (2013) postulates that many global theme park attractions are successful because they have adopted animated content that generates emotion by evoking visitors' nostalgic memories of animation characters. These feelings of nostalgia are triggered by the narratives that the theme parks provide, and are based on each individual visitor's memories. In turn, media memory can be rediscovered by the audience members themselves through fantasy (Francois Barre, qtd. in King & O'Boyle, 2010, p26).

Wei, Qi and Zhang (2019) posit that VR technology can enhance the feeling of distinctiveness by focusing on presence, which leads to higher level of interest. Presence in an immersive environment allows visitors to experience something intangible with multisensory involvement, and has been shown to lead to re-visitation.

3. Methodology

The aim of this study is to investigate the importance of nostalgic animation content in immersive theme park environments that use VR applications for creating emotional engagement in their visitors. The study is focused on Korean theme parks which have added VR technology to their animation-based attractions. In the cases studied, the animation content was specific for each attraction and did not involve existing content that would have been previously seen on TV or in theatres.

Preliminary interviews with theme park professionals Mr. Paul Pei (former Executive Director of Ocean Park) and Mr. Chris Yoshii (Vice President of AECOM Asia Pacific) were conducted in Hong Kong during previous studies to gather insights on what makes theme parks strong. An additional interview was conducted with Mr. Jae-Wook Park (Director of EVR Studio, Seoul, South Korea) and two other park professionals who

did not want their identities revealed, to describe the function of VR at Korean theme parks. The spread of covid-19 prevented additional in-person interviews, so email interviews were conducted using convenience samples of three experts (from Lotte World Adventure and Everland) and ten visitors. The information gained from the interviews was supplemented with archival research consisting of news and interview articles, media reports, and books referring to Lotte World and Everland.

In the email interviews, the same set of six open-ended questions were given to the experts, who are all former or current members of the theme park industry, and the visitors. The interview questions were both descriptive and exploratory, and covered two dimensions: 1) How does each park develop strategies to attract more visitors? Do park professionals/designers consider nostalgia to be an important factor? How does virtual reality in particular work as an amplifier to attract more visitors to theme parks? and 2) What kinds of virtual reality content have been adopted, and have these measures been successful?

A preliminary conceptual model was developed to describe successful theme park elements with nostalgic animation content and VR technology, based on the literature cited above. The model is shown in Figure 1. It was employed during the interviews and archival research.
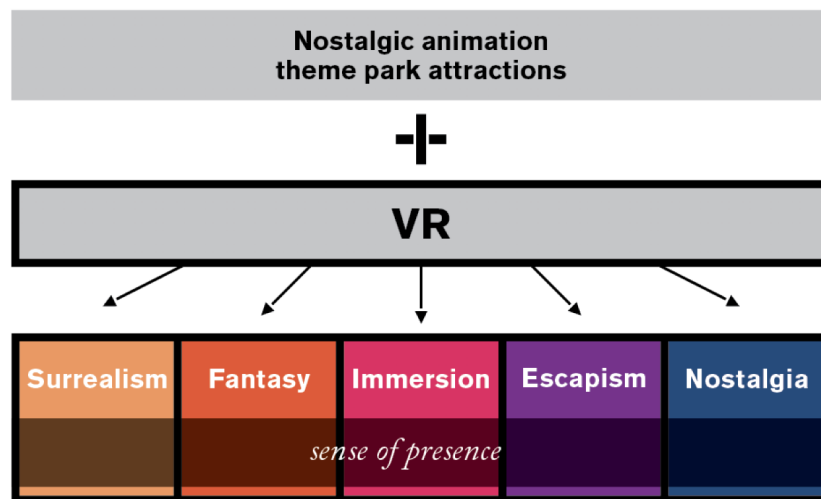
Fig. 1. Conceptual framework showing the significant elements for a successful immersive environment for a theme park

4. Results and Findings

The interviews consisted of the following six questions:

Q1 What is the most important attribute for a VR attraction?

Q2 What are problems they have with VR attractions?

Q3 What is their repeat visitation like?

Q4 What are technical issues?

Q5 Are there any synch-in problems between the media content and the movement?

Q6 What kind of content are they using? Is it high-quality and able to evoke reminiscent memories?

Table 1 gives a summary of the results from the interviews.

Table 1. Interview summary

Interview Question	Coded Replies		Themes
	Park and Media Experts	**Customers**	
Q1	- Content quality - Entertainment value - Waiting time	- Content quality - Waiting time - User feedback on internet	Content quality Waiting time
Q2	- Waiting time - Safety - Hygiene - Dizziness - Content quality	- Dizziness - Waiting time - Hygiene - Content quality	Waiting time Dizziness Hygiene
Q3	Few repeat visitations	- Once is enough - Dizziness	Few repeat visitations
Q4	Relying on headset only	Headset is uncomfortable (size and fragility issues)	Limited resources
Q5	Dizziness	Dizziness and nausea	Giddy and unwell
Q6	- Using completely new media content - Audience has never seen the content before	- No memories to reminisce over - Has never seen the content before	No nostalgic feeling evoked No emotional linkage

Several important themes emerge from the interviews.

- Content quality: Experts and customers both stressed that content quality is the most important attribute for a VR attraction. In fact, having sophisticated, narrative driven, high-quality content seems more important to visitors than the extent to which the VR technology is state-of-the-art.

- Waiting time: Experts and customers agreed that the waiting times for VR attractions are too long.

- Dizziness, giddiness, and feeling unwell: Some visitors said that they feel uncomfortable and dizzy when using the headset, even on the main park attractions. The respondents believe that the dizzy feelings are caused by synch-in problems between the media content and the motion of the rides.

- Hygiene: Some visitors said that they do not feel that the headset is clean enough, and some even felt that wiping the headset after each session does not suffice.

- Neither nostalgia nor emotional attachment is being evoked: Since these theme parks do not make use of existing content which would be well known to the visitors, there is no mechanism for accessing their memories and inducing reminiscences.

- Limited resources: Because of time and cost restraints, the parks that were studied added VR to existing attractions rather than introducing entirely new attractions. While the experts believe that this was a smart strategy, the visitors feel that there are too many issues with the headsets as a result.

- Repeat visitations: Experts and customers are well aware that the theme park attractions are not yet compelling enough to warrant repeat visits. The reasons include those listed above.

According to the interview session with Mr. Park (EVR studio) and Levine (2018), the most pressing challenge in applying VR technology to theme park attractions is the production of high-quality content. Content quality at the newly launched VR attractions at the two theme parks that were studied is not up to standard for those who have experienced the attractions at other global theme park chains. Visitors did not complain about the special effects; however, they described weak narratives and confusing plots. They noted that they would prefer interacting with popular, existing content rather than with content with which they have no prior attachment.

Previous research shows that the lack of attractive, strong content hinders re-visitation (Ma, 2017). Our interview findings are consistent, showing that the park visitors were curious enough to try the newly added technology, but VR applications simply added to existing attractions such as roller coasters or gyro drop rides were not sufficient to motivate the visitors to return.

Our interviews also show that there are two other factors that affect re-visitation. One is visitor discomfort in cases of poorly created content that does not properly synchronize with the movement of the rides (Ma, 2017). The other is that headsets can have hygienic and size issues, where, for example, the cleaning standard by the staff

does not provide security to the visitors, and the headset is not adjustable for different head sizes.

5. Discussion and Conclusions

Our research has reinforced the understanding that satisfying visitor expectations and producing repeat visitation only occur when theme parks deliver a solid holistic concept which integrates characters and technology while providing guests with the opportunity to have limitless imagination within the theme of the park (Lim 2012). VR deepens the immersive experience when it is combined with quality-driven content because complete immersion does not solely depend on technology; it must also resonate with the cognitive psychology of the VR users and the sensory system. Unfortunately, while VR technology continues to advance and evolve, the quality of its content has not yet become a central focus (Kim & Han, 2017; Chang & Kim, 2018). Visitors who are already familiar with VR media at global theme park chains require higher quality content than is currently available in Korean theme parks.

Other findings from this study include the importance of the correct setting for a VR experience, whether it be a rollercoaster or theater, and the need to reassure visitors as to the standards of hygiene being followed, especially with respect to the headset (which is not disposable and needs to be used by many people). A possible solution for hygiene reassurance might be providing disposable eye patches, which protect visitors from direct contact with the headset.

The findings of this study are necessarily limited, due to the current pandemic situation; the author was only able to conduct email interviews and could include only a small number of interviewees. Although archival research supplemented the gap, participant demographics in future studies need to be wider in terms of nationality, occupation, ethnicity, age, and gender.

While this study does not cover the general perception of VR applications in theme parks, it does emphasize the ability of high-quality animation content to immerse its visitors into a fantastic, surreal, and immersive experience within a hyper-realistic space. For maximum immersion, a VR experience must appeal to the senses, the imagination, and the emotions. Animation can indeed offer this kind of fantastic experience, which embodies the viewer's emotional state (Huang et al., 2020). To achieve such an experience, we recommend that theme parks build on the fundamentals of establishing strong, recognizable themes using well-known animation characters to induce nostalgia and thus magnify each visitor's unique memories (Clavé, 2007; Christou et al., 2018).

Future research on adopting VR in theme parks could further examine connections between strong content in the context of an overall holistic approach to the immersive experience, and the psychological impact when this approach is supported by VR technology. In order for visitors to be able to be immersed in the experience, theme park operators need to provide their customers opportunities that appeal to their imagination, and this requires appealing and clearly defined themes with a strong encircling and supporting narrative. In many cases, Korean theme park operators have yet to recognize the need for this holistic approach.

References

Baudrillard, J. (1994). *Simulacra and simulation*, Translated by Sheila Faria Glaser, The University of Michigan

Baudrillard, J. (1996). *Disneyworld Company*. Translated by Francois Debrix. Liberation, March 4. ctheory.net. http://ctheory.net/ctheory_wp/disneyworld-company/

Boym, S. (2001). *The Future of Nostalgia*. New York: Basic Books.

Chang, H. J., and Kim, Y. J. (2018). VR Theme Park Attraction VOLT Che Heom Yeongu [A study on VR theme park attraction VOLT experience], *The Korean Journal of Animation*, 14(1), 132-147

Chazaud, P. (1998). *Le Parc à Thème, Production touristique hors sol*. Cahier Espaces 58, 88-96, qtd in Clavé, S. A. (2007). The global theme park industry

Cho, J. H. (2012). Gong yeon jeonmun animation character park ui mirae [The future of performing arts specialized animation characters theme park], *Journal of the Korea contents association*, 12(9), 146-155

Choi, S.W. (2017). Theme park storytelling ui changjak bangbub ron yeongu [A study on the creative methodology of theme park storytelling: Focusing on Jeju Island theme park], *Journal of the Korean Literary Creative Writing*, 16(2), 133-162

Christou, P., Farmaki, A., & Evangelou, G. (2018). Nurturing nostalgia?: A response from rural tourism stakeholders. *Tourism Management*, 69, 42-51.

Clavé, S. A. (2007). *The global theme park industry*. CABI.

Collmer, K. (n.d.). Independent Animation and Memory Reconstruction. Retrieved from http://www.kimcollmer.com/collmer_anim.pdf

Coltier, T. (1985). *Les parcs à thèmes*, Espaces 73,18-20, qtd in Clavé, S. A. (2007). The global theme park industry

Eco, U. (1990). *Travels in Hyper Reality: Essays*, Translated by William Weaver, Harvest Book Series, Mariner Books; First edition

Hine, T. (1986). *Populexe*, New York: Knopf.

Hopf, J., Scholl, M., Neuhofer, B., Egger, R. (2020) Exploring the Impact of Multi-sensory VR on Travel Recommendation: A Presence Perspective. ENTER 2020. In: Neidhardt, J. and Wörndl, W. (Eds.) *Information and Communication Technologies in Tourism 2020*, Surrey, UK. Springer Verlag, 169-180.

Hsu, C. H. C., Cai, L. A., & Wong, K. K. F. (2007). A model of senior tourism motivations-Anecdotes from Beijing and Shanghai. *Tourism Management,* 28(5), 1262-1273.

Huang, X. T., Wei, Z. D, and Leung X. Y. (2020). What you feel may not be what you experience: a pshychophysiological study on flow in VR travel experience. *Asia Pacific Journal of Tourism Research*, doi: 10.1080/10941665.2019.1711141

Jerald, J. (2016). *The VR Book: Human-Centered Design for Virtual Reality*. ACM Books

Lim, S. T. (2012). Theme Park Attractionui Narrative Gujowa Pilyoseonge Daehan Yeongu [A Research on Necessity and Narrative Structure of Attractions in Theme Park- Focused on Comparison of Disney World], *Korean Communication Design Study*, 40, 119-129.

Nelson, T. (2016). *Impact of virtual and augmented reality on theme parks*. Master Dissertation, Master of Digital Media, Ryerson University, Toronto, Canada. Retrieved Feb 15, 2020; available from https://digital.library.ryerson.ca/islandora/object/RULA%3A5741

Kim, K. J., and Han, H. S. (2017). Gasang Hyunsil Gi Ban Contents-oe Ganeungseong-gwa Hangye-Theme Park reul Joongshiluero [Possibilities and limiatation of virtual reality based content-Focused on the theme park]. *Journal of Digital Convergence*, 15(5), 373-380

Kim, Y. J. (2016). Theme Park Attraction Yoohyeong Eh Ddarrun Gasang Hyunshil Doib-oe Jaesaengsan Yeongu [*A study to announce the possibilities of virtual reality technologies and their integration into theme park rides and attractions*]. Master Dissertation, Department of Computer Engineering, Namseoul University, Cheonan, Chungcheongnam-do, South Korea. Retrieved Jan 10, 2020: available from http://www.ndsl.kr/ndsl/search/detail/article/articleSearchResultDetail.do?cn=JAKO20 1900937358506

King, M. J. (1981). Disneyland and Walt Disney World: Traditional values in futuristic form. *Journal of Popular Culture*, 15 (1), 116-140

King, M. J., and O'Boyle, J. G. (2015). "The theme park: the art of space and time." Jackson, J. M and West, M. (Ed.), In *Disneyland and culture: Essays on the parks and their influence* (pp. 14-28). North Carolina: McFarland

Oh, J. E. (2013). *A study on the characteristics of theme park attractions with applied animation content*, Doctoral Thesis, Sejong University, Seoul, South Korea. Retrieved Dec 5, 2019; available from https://scienceon.kisti.re.kr/srch/selectPORSrchArticle.do?cn=DIKO0013026007&dbt=DIKO#

Oh, J. E. and Ma, H. (2018). Enhancing visitor experience of theme park attractions: Focusing on animation and narrative, *Journal of Advanced Research in Dynamical and Control System (JARDCS)*, 04-Special Issue, 178-185

Swartznan, E. (1995). Main attractions, *Leisure Management*, 15 (9), 65-67

Uriely, N. (2005). The tourist experience: Conceptual developments. *Annals of Tourism Research,* 32(1), 199-216.

Walden, V. G. (2018). Animation and Memory. In N. Dobson, A. Honess Roe, A. Ratelle, & C. Ruddell (Eds.), *The animation studies reader* (pp. 81–90). Bloomsbury Academic.

Wei, W., Qi, R., & Zhang, L. (2019). Effects of virtual reality on theme park visitors' experience and behaviours: A presence perspective. *Tourism Management,* 71, 282-293

Wells, P. (1998). Understanding Animation. London: Routledge, https://doi.org/10.4324/9781315004044

Yim, S. J. (2019). Woorinara Gasang Juengang Hyunsil Gisool Gyeongjangryeok Boonseok Mit Sisajeom [Analysis and implication on VR and AR technology competitiveness in Korea], Intellectual property report, Korean Institute of Intellectual Property, 2019 (20) from https://www.kiip.re.kr/board/report/view.do?bd_gb=data&bd_cd=4&bd_item=0&po_item_gb=5&po_item_cd=dgb_20&po_no=12527

Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, 26 (1), 45-56.

<Websites>

Lee, S. H. (2019, July 9). Interview with Mr. Park Dong-Gi (CEO of Lotte World) Lotte World 30 Nyeon.."Theme Park Content Soo Chool Woneyon Doelgut [20 years of Lotte World Adventure.. "It will become the first year of exporting the theme park content"]. ChosunBiz. Retrieved Feb 15, 2020, from https://biz.chosun.com/site/data/html_dir/2019/07/09/2019070900057.html.

Levine, A. (2018, Jun 20). Virtual reality: VR tech added to theme park rides. USATODAY. Retrieved Feb 17, 2020, from https://www.usatoday.com/story/travel/experience/america/theme-parks/2018/06/20/virtual-reality-vr-tech-theme-park-rides-attractions/714563002/

Lotte World Adventure. Retrieved Jan 10, 2020, from http://adventure.lotteworld.com/eng/main/index.do.

Ma, S.E. (2017, Mar 5). Neul Eo Na Neun VR Bang, Il hoe Seong Chaehum Jang Doena [Increasing VR Rooms, possible to become one-off experience only]. Tech M. Retrieved Feb 20, 2020, from https://www.techm.kr/news/articleView.html?idxno=3722

Shim, S. (2017). Nueluh naneun VR bang, Ilheoseong Chehum Jang doena [Increasing VR rooms, would they be one-time experience only?]. MOBIINSIDE. Retrieved Jan 10, 2020, from https://www.mobiinside.co.kr/2017/03/10/shim-vr-vrlandmark/

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