

COVID-19 and Guest Engagement Analysis in the Entertainment Industry: towards an Integrated Approach

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Abstract

The present paper outlines the results of research on user engagement with theme park online contents and carries on an evaluation of the marketing strategies adopted by some attractions to build or strengthen the bond with their guests and communicate health and safety protocols while promoting their destination.

The research investigates the possibility of better understanding post-COVID-19 travelers, taking into account search trends and user behavior, and therefore learn best practices to successfully communicate with visitors. In a totally novel market situation, like the one originated by COVID-19, authors suggest that a new approach is fundamental to address post-COVID-19 travelers.

The integrated approach proposed within this paper aims at investigating the guests' feelings and expectations by looking at objective data drawn from online social engagement with audiovisual content produced by theme parks and by looking at small neuroscientific data collected with neuromarketing research tools. The great innovation of neuromarketing research to assess the emotional reactions to specific contents is related to the use of technologies that give direct access to cognitive and emotional dimensions.

COVID-19 has changed travelers' mindset, and the way guests choose destinations has radically transformed; destination marketers must be aware of this swift and use suitable tools to respond to customers' needs and connect with their guests. In this study we attempt to analyze the emotional reaction to content to deep dive different engagement scores.

Keywords

Guest Experience, Online Engagement, COVID-19, User Experience, Theme Parks, Neuromarketing, Small Data

1. Introduction

The spread of COVID-19, as widely reported and documented, led to a worldwide loss from multiple perspectives: the virus threatened (and it is still threatening) people's health, killing many; according to WHO globally we have 237.383.711 confirmed cases (as of 05.52 p.m. CEST, October 11, 2021), and 4.842.716 deaths.¹ The pandemic has brought economic discomfort on a global scale and has had an unprecedented impact on tourism when compared to other, previous, catastrophic events. As Osterholm aptly put it, "SARS provided a taste of the impact a killer influenza pandemic would have on the global economy" (Osterholm, 2005: 28). If SARS provided a taste, COVID-19 made the globe swallow a much bigger and bitterer bite.

No country has escaped the decimation of its tourism sector, from Italy where tourism accounts for 6 percent of the country's GDP to Palau where it generates almost 90 per cent of all exports. This crisis is a major shock for developed economies and an emergency for the most vulnerable people and developing countries.²

In Italy, there was a drop of visitors between April 2020 and June 2020 of between -80%/-90%.³ The United States experienced similar numbers; according to the Bureau of Transportation Statistics, US airlines experienced 80% fewer passengers in the month of June compared to 90% loss in May.⁴

From a psychological perspective, the pandemic has radically changed the way we work, socialize, manage our health, take care of our family and, of course, the way we travel and

¹ <https://covid19.who.int/>. Last access 12th October 2021.

² [COVID-19 and Transforming Tourism](#). p. 2. Last access 25th October 2020.

³ https://www.ilsole24ore.com/art/hotel-covid-19-costera-calo-fatturato-50-65percento-ADqdJBv?utm_term=Autofeed&utm_medium=LISole24Ore&utm_source=LinkedIn&fbclid=IwAR3DNwqDegpIz6VjDVdaYBuhVxYCsPqxW5dFFoFZs4_fyFm9dJ5agVlOuE#Echobox=1602489716. Last access 30th October 2020.

⁴ [US Airline June 2020 Passengers Decrease 80% from June 2019 but Rise 93% from May 2020 \(Preliminary\)](#). Last access 30th October 2020. Last access 30th October 2020.

entertain ourselves. COVID-19 has forced people to stay home with the fear of being infected by a potentially lethal virus simply by gathering in squares, visiting a museum, mixing with other people, or shaking hands with a friend. What people hoped was going to be temporary situation has revealed itself to be more permanent and, in a few months, people had to adjust, resiliently, to a ‘new normal’.

Starting from this assumption, the travel and entertainment industry had to adapt to the situation to survive the pandemic changing ways of interacting and communicating with guests.

It was necessary to embrace new communicative strategies, considering the guest’s need to be reassured, conveying messages of responsiveness and trustworthiness. The authors believe that the recent shift to a ‘new normal’ is just the start of an important digital transformation that will change the ways guests explore destinations and ‘buy’ experiences.

During the lockdown and the resulting emergency, we have witnessed new behaviors and new trends in the online visual form of entertainment: Netflix added more than 15 million new subscribers so far this year (April 2020)⁵ and Disney Plus reached more than 50.000.000 subscribers in 5 months.⁶ And gaming has grown too:

As millions of students, who are large consumers of video games, stay home from school and extracurricular activities, engagement has increased to fill some of that time. According to J.P. Morgan Research, Verizon has reported that video game usage is up 75 percent across the United States.⁷

Big online players as Amazon entered the tours and activities field for the first time, offering live experiences on their marketplace. We have also seen more social media connections than ever before (such as for private messaging and video calling): “total messaging across Facebook, Instagram, and WhatsApp in harder hit areas of the globe, like Italy, has increased by more than 50 percent”.⁸

⁵ [Netflix has capitalized on social isolation, but will its success continue in a post-coronavirus world?](#). Last access 30th October 2020.

⁶ [Disney Plus racks up 50m subscribers in five months](#). Last access 30th October 2020.

⁷ <https://www.jpmorgan.com/insights/research/media-consumption>. Last access 30th October 2020.

⁸ [Facebook says coronavirus is pushing usage through the roof, but its business is hurting](#). Last access 30th October 2020.

It is also interesting to see the spike of engagement for Pinterest users for some categories such as “activities with children”⁹, probably reflecting the need to fill the time spent at home with children.

The worrying outlook which has descended upon us all has led people to reconsider their travel plans, to seek ‘safe’ destinations. The online content created during the pandemic by attractions introduced new communication purposes such as reassuring the public about safety procedures implemented in the parks, entertaining users at home, and creating a desire to physically visit the attractions when that once again becomes possible.

As Google stated in a recent article, users suddenly and drastically changed their interests, needs, and behaviors, and it became more and more important for businesses to “shift their focus from short-term solutions to long-term digital transformation”.¹⁰

The COVID-19 pandemic led to a perspective change in consumers’ behavior. As the pandemic hit, the main and general concern became health and safety with a renewed and strengthened awareness of the importance of intangible benefits (free time, freedom, enjoying life, well-being).

In critical and threatening situations, people are more emotional than rational (Zouni and Kouremenos, 2008: 284). Thus, suitable communication must be focused on evoking emotions. To provide effective communication, the starting point needs to be understanding customers’ desires, concerns, and emotional needs. This part of the human experience is mostly unconscious and not easily accessible. Nowadays the evaluation of communication effectiveness still relies on traditional techniques, based on direct questions. But with a new situation, we believe that there is a necessity to find a new approach and method by which to gather information about customers’ emotions.

Aside from a mainly rationalistic model, whereby cognitive processes were measured through logical-mathematical procedures, from the 70s onwards - with the pioneering works of Simon (1959), Petty and Cacioppo (1986), and Kahneman and Tversky (1979) - a new way of representing decision-making processes was proposed, bringing about a profound paradigmatic change in the research on consumer behaviour.

⁹ [Media Consumption in the Age of COVID-19](#). Last access 30th October 2020.

¹⁰ <https://www.thinkwithgoogle.com/intl/en-gb/consumer-insights/consumer-trends/post-pandemic-economic-recovery/>. Last access 30th October 2020.

These studies show the prevalence of the emotional dimension and demonstrate that the two processes, cognitive and emotional, are neither excluded nor separated, and must be considered as distinct and interacting mental functions, mediated by differentiated interacting neural systems. This assumption was later demonstrated by the neuroscientist LeDoux (1996), who highlighted that the cognitive system is characterized by the activation of the cortical zone, leading to a slower and more cognitively wasteful process, while a second process - that is adaptive and faster - is connected to the most ancestral and emotional part of our brain, the Thalamic zone.

Based on the neuroscientific results, confirming that emotions dominate cognitive and behavioral processes, emotions must be considered crucial in marketing communication (Hazlett *et.al.*, 1999). An emotional response to communication in advertising can influence several aspects including the attitude towards a brand (Batra and Ray, 1986; Edell, Burke, 1987; Du Plessis 2005; Hall, 2002), the attention of a consumer (Medina, 2010; Stayman and Batra, 1991), and the memory of the message and therefore its effectiveness (Medina, 2010; Li-Wei and Scholler, 2009; Hazlett *et.al.*, 1999; Stayman and Batra, 1991; English, 1990).

Traditional techniques used in market research present some limitations in their ability to measure emotions, leading to blurred results and confusion about what is felt by subjects.

Scientific research indicated that people are not aware that a lot of their daily actions are automatic and unconscious (Zaltman, 2003; Chartrand, 2005).

Research has also shown how emotions are able to influence behavior without the person being aware of it (Winkielman *et. al*, 2005).

Through questionnaires, direct questions (i.e., interviews), and focus groups, market research has always tried to rationalize the emotional dimension, which by its very nature is difficult to rationalize and verbalize. Traditional market research, as well as the economic models on which they are based, seem to have implicitly only considered the consumer as a totally rational person.

Because of these limitations, a new scientific method called *neuromarketing* is progressively entering marketing and research processes. Neuromarketing is therefore considered a valid method of supporting and integrating traditional research. By doing so, the vision obtained becomes more articulated and complete, providing information about the most rational

dimension and - thanks to neuromarketing - the emotional dimension, which can contribute up to 95% of the thought processes behind decision making.

Through magnetic resonance imaging, a device that carries out an in-depth scan of the brain, the neuroscientist LeDoux (1996) observed, for example, that regardless of the stimulation received (visual, tactile, olfactory, gustatory, or auditory), the stimulus first reaches the deepest and oldest structures of our brain, such as the amygdala, whose fundamental role is to participate in the development of emotions such as anger, sadness, pleasure, or fear. It is only later that the stimulus is processed with greater attention by the cerebral cortex, the most recent and superficial cortex, where it is then *rationalized*.

Neuroscience therefore demonstrates that the first dimension processed by our brain is emotional. Only afterwards, there is a more rational and objective development of the experience encountered.

If this way to process experiences on one side simplifies our decisions, on the other, it generates without us realizing it, distortions - cognitive bias - that divert us from the optimal decision-making path. This is why we favor one product over another (with the same price) in a supermarket, for example, because it is more original or pleasant, or because it is a familiar brand, even though it may be of inferior quality.

The non-verbal measurements, based on the registration of neurophysiological parameters, provide more accurate and reliable data that are not mediated by the rational and cognitive processes that are activated during the traditional survey techniques (Poels and DeWitte, 2006). Nowadays, thanks to technological improvements and neuroscientific evidence, it is possible to adopt new types of measures, able to collect neuro and psycho-physiological activity correlating with affective and experiential reactions during the communication exposure.

One of the main advantages of neuromarketing relates to the possibility of having access to data which are difficult to obtain with traditional research methods, using tools capable of directly accessing very important information such as visual attention, emotional engagement, and implicit attitudes.

Marketers need varied strategies to attract future customers and marketing for the tourism industry has distinct characteristics when compared to other marketing plans: "Because tourists are temporary, they are exposed to an area's goods and services for shorter periods. But tourists

are counting on having a good time, so marketers should consider strategies that appeal to the emotions [...]”¹¹

During these unprecedented times, there is the need of balancing the communication of health and safety information with the emotional driver to find a reason to travel again after or through the pandemic crisis.

It is thus mandatory to use new tools to assess the impact of this new kind of communications in response to the COVID-19 outbreak and evaluate the reaction of travelers and users when watching and engaging with online content.

The exploratory research on guest emotions presented within this paper considers a small sample of participants, thus the results are not easy to generalize for the whole population. In this study, we compared two videos with similar performance in terms of YouTube interaction. Nevertheless, results are in line with a difference in the audience’s emotional reaction to different kinds of communication.

Given the results, the authors believe it would be useful to enlarge the sample size and the number of stimuli to analyze, extending the test to videos with different performances in terms of interactions, to identify the most effective way of communicating. Analyzing different communication strategies could be considered a very interesting approach to obtain more generalized insights by which to drive communication strategies. Moreover, one possible future direction could be to compare different targets in terms of gender, nationality, or attitudes, which would provide more data for optimizing communication towards specific targets and groups in society.

2. Towards a *new normal*: users’ online engagement

Guest journeys and experiences have changed dramatically through COVID-19 and the tourism industry has been responding in different ways to help guests choose the brand they trust.

Travel behaviors are shifting, as are the search queries of travelers after the spread of COVID-19:

¹¹ <https://smallbusiness.chron.com/tourism-marketing-56473.html><https://smallbusiness.chron.com/tourism-marketing-56473.html>. Last access 30th October 2020.

Consumer confidence in travel remains low. Searches for “can I travel” have grown more than 800% year over year,¹² while queries asking if it’s “safe to fly” are up more than 500%.¹³ Air travel is down 85% globally from a year ago, and a new wave of rising COVID-19 cases is leading to a reimposition of restrictions and quarantines, especially in popular destinations like Europe.¹⁴

This sudden and continuous shift of searches, intentions, and user behavior requires more insight into the consumer mindset. From research by Google “we are seeing short-lived trends show up in what people are searching for on Google and watching on YouTube. This is revealing a correlation between search queries as intention and video views as action”.¹⁵

During the pandemic people spent time social networking; “searches relating to social-network usage increased from a low point on March 3rd of 85.9 million searches per day to a peak on March 29th of 108.8 million, a 26.7% increase”.¹⁶

As more users browse videos online, attractions and theme parks started creating online videos to keep talking and engaging with their guests online. To evaluate a video performance, users’ activities such as likes/dislikes/number of views, comments, sentiment, etc. serve as indicators.¹⁷ Analyzing user online activities and their engagement with content is important to define the success of a marketing campaign and to use that data to create new content following those trends.

We have seen big entertainment players such as Netflix using big data infrastructure to “gather, store, and process massive amounts of information. These platforms influence its decisions on what content to create and promote to viewers. [...] Netflix has been able to ensure a high engagement rate with its original content, such that 90 percent of Netflix users have engaged with its original content”.¹⁸

In this study, we explore the question of how the analysis of users’ emotions might change the online engagement rates within the tourism and hospitality services and provide an argument for the new online transition that service providers are currently experiencing.

¹² Google Data, Global English, June 3, 2020–Aug. 1, 2020, vs. June 3, 2019–Aug. 1, 2019.

¹³ *Ibid.*

¹⁴ [Escaping Locally: Summer Travel Trends](#). Last access 30th October 2020.

¹⁵ <https://www.thinkwithgoogle.com/feature/understanding-consumer-mindset-during-coronavirus/#intro-copy>. Last access 30th October 2020.

¹⁶ See also <https://www.mediapost.com/publications/article/351741/report-zoom-sees-2000-spike-in-new-user-interest.html>. Last access 30th October 2020.

¹⁷ See also H. Bhuiyan *et. al.*, 2017.

¹⁸ <https://www.clickz.com/how-netflix-uses-big-data-content/228201/>. Last access 28th October 2020.

As previously stated, during the pandemic, we have witnessed a change of communication styles and strategies aligning with the UNWTO Global Guidelines to restart tourism.¹⁹ Some of the main entertainment and hospitality players created to engage users online, such as a video showing *Cast Members* (Disney employees) preparing the park for returning guests at parks and resorts,²⁰ official safety videos to explain the safety guidelines and reassuring guests such as for Disney World²¹ and Universal Orlando.²² We have seen content shared by guests online showing how Disney used a sense of humor and even themed its safety message such as in the case of the Star Wars’ Stormtroopers securing Disney Springs with new Social Distancing Measures.²³

Walt Disney World has created a page on their website²⁴ to inform their guests about the “enhanced health and safety measures and the inherent risk of exposure to COVID-19”.²⁵ The Park has introduced reassuring messages and helped set new expectations for their guests; “It may be different from the last time you visited. But together, we can find new ways to create magical moments and memories to treasure”.²⁶

All major players created *ad hoc* communication on their websites and content via social media to show the park getting ready for reopening. Messages have also been tuned with images portraying the ‘new normal’, for instance showing guests and team members wearing masks.

EHL Insights, a university-based news platform, suggested best practices to the tourism industry on how to win back trust.²⁷ They placed an emphasis on the importance of informing the guests, keeping communication truthful, being honest, for instance by talking about how the crisis has affected the business (positive and negative), reassuring the customers that they will be taken care of, and finally staying true to brand identity.²⁸

During the first couple of months of the pandemic, guests were still craving a sense of exploration and travel. Attractions all over the world creatively put their destinations online for

¹⁹ [UNWTO GLOBAL GUIDELINES TO RESTART TOURISM](#). Last access 30th October 2020.

²⁰ [Cast Members Prepare to Welcome Back Guests at Disneyland, Walt Disney World & More](#). Last access 28th October 2020.

²¹ [Know Before You Go to Walt Disney World Resort](#). Last access 29th October 2020.

²² [Welcome Back to Universal Orlando](#). Last access 28th October 2020.

²³ [Star Wars Stormtroopers secure Disney Springs with new Social Distancing Measures](#). Last access 30th October 2020.

²⁴ <https://www.disneyworld.eu/experience-updates/>. Last access 30th October 2020.

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ [Covid-19 communication: how to win back trust and create safe-havens](#). Last access 30th October 2020.

²⁸ *Ibid.*

all guests to be able to access. For instance, “according to Google Keyword Planner data, searches for the term “virtual tour” increased seven times, from 1,300 in February to almost 10,000 in March”.²⁹

Overall, there has been a trend of guests still wanting to relax after work and experience some sort of fun. During lockdowns and travel restrictions, the way people relaxed became by taking a virtual tour of the Louvre in their pajamas at home, group watching the Mandalorian or bingeing on a new Netflix show. Millions of people made choices to cancel their trips and to not travel for a while, and to deal with the new adjustments; the choice for many was to watch something on the internet instead.

Not only did virtual tours increased but so did the customers for streaming platforms and total subscribers of Netflix, Hulu, and YouTube TV. Disney launched their new streaming service Disney Plus on November 12, 2019.³⁰ In April 2020, the number of those “watching shows & films on streaming services” went up 57%³¹ since most of the world at that point had had some sort of social distancing and remote working measures put in place.

3. User Engagement Evaluation: *Universal Orlando, Disneyland Paris, and Leolandia*

The research group has selected online content by Universal Orlando, Disneyland Paris and Leolandia’s YouTube Channels and their social media channels. The authors have analyzed the online communication of these attractions as the virus spread globally in order to investigate the communication strategy of these players in different markets with different stages of the spread of the disease.

Italian Leolandia content - namely two YouTube videos distributed during the health emergency and lockdown - were also selected for the neuroscientific analysis.

YouTube was selected as it is “one of the comprehensive video information sources on the web where videos are uploaded continuously in real time. It is one of the most popular sites within

²⁹<https://www.forbes.com/sites/laurabegleybloom/2020/04/27/ranked-worlds-15-best-virtual-tours-coronavirus/#50b1bc1e6709>. Last access 30th October 2020.

³⁰<https://www.techradar.com/news/disney-plus-movies-shows-free-trial-hamilton-and-more-explained#:~:text=Disney%20Plus%20has%20already%20launched,America%20starting%20in%20late%202020>. Last access 30th October 2020.

³¹<https://www.cordcuttersnews.com/study-shows-streaming-is-up-57-year-over-year/>. Last access 30th October 2020.

social media, where users interact with sharing, commenting, and rating (like/views) videos” (Bhuiyan *et.al.*, 2017: 1). As analyzed by Bhuiyan *et. al.* (2017), “the quality, relevancy and popularity of the video is maintained based on this rating” (*Ibid.*). By analyzing the comments/feedback/likes/view counts etc. of the videos uploaded, companies can investigate viewers preferences. (*Ibid.*)

The team selected content available online showing the ‘new normal’ (i.e., masks, physical distancing, emphasis on safety, etc.) and content showing a visit to the parks before the COVID-19 spread. We analyzed their online presence, stats, and rank within YouTube Entertainment channels as those metrics help to measure the performance of the channel and its videos, also indicating the potential of a channel and its user interaction with the content. We then selected two different types of videos from Leolandia to apply a neuromarketing approach to the analysis of user engagement and reaction to content and combined this approach with the analysis of the available stats of their online performance, suggesting the advantages of an integrated approach to marketing and user engagement analysis.

Extending our investigation to some international theme parks, namely Universal Studios and Disneyland Paris, helped us to see the difference in engagement rates with different content and communication strategies in response to the COVID-19 outbreak.

Universal Orlando is an American theme park and entertainment resort complex based in Orlando, Florida, home of two theme parks (Universal Studios Florida, Universal's Islands of Adventure), and the Volcano Bay water theme park, as well as an upcoming park. More than 20,000,000 guests visited the parks in 2019.³² The parks use Facebook, Instagram, Twitter, and YouTube as social media channels by which they interact with their guests. Their YouTube channel has 180.000 subscribers and was created in 2007. The average engagement rate for the channel is between 1% - 1.5%.³³

The meta data analysis research was carried out on two videos, a pre-COVID and a post-COVID video on YouTube channel.

³² TEA/AECOM 2019 Theme Index and Museum Index: The Global Attractions Attendance Report
Publisher: Themed Entertainment Association (TEA) Research: Economics practice at AECOM.
<https://aecom.com/theme-index/>

³³ Meter retrieved on Influencex. <https://www.influencex.com/>.

The pre-COVID video was entitled “This Is Universal Orlando”³⁴ and it came along with this copy: “Universal Orlando Resort - the next-level vacation destination where guests can create epic memories with their friends and family [...]” (*ibid.*) The video received 47.920 views with an average engagement rate of around 2%. It scored 766 likes and 12 dislikes with a 1.6 % likes ratio. Of which 91.1% is from YouTube engagement.³⁵

The total views on the Universal Studios Channel on the week this video was published were 205.079³⁶ accounting for 23.37% of the total views.

The video opens with a guest opening the hotel’s curtains and looking out onto a sunny day in Orlando. We then see many guests enjoying food, themed areas, and attractions. Crowds and popular areas are represented. Costumes, props, technology available in the park spool by. Moments of surprise and excitement such as riding a rollercoaster and exploring the park with family and friends are all depicted, moments filled with emotion such as hugging a favorite character, family reunions and fun interactions with the park’s team members.

Published on the 27th December 2019, in this pre-COVID-19 video excitement pours from each scene portrayed. Super thrilling and entertaining experiences are displayed, and the frame skips stimulatingly from one attraction to the other. Music is loud and engaging and the textual presence is limited to 4 THIS (written in capital letters) followed by a period (THIS.THIS.THIS.THIS.) accompanying the dynamic scenarios of the park. The last THIS is followed by the word IS and the text mixes with the image of the iconic Universal Studios globe which is at the entrance of the City Walk. Text threads through the image giving the impression of a harmoniously well-built video.

The second video, the post-COVID-19 video, *Welcome Back to Universal Orlando*³⁷, received 55.586 views with an average engagement rate of around 1.7%. It scored 710 likes and 59 dislikes with a 1.3 % likes ratio. Of which 98.6% is from YouTube engagement and 1.3% from Twitter.³⁸

³⁴ [This Is Universal Orlando](#). Last access 30th October 2020.

³⁵ Source: VidQ pro, data of retrieval Oct 20th. <https://vidiq.com/>.

³⁶ Source: <https://socialblade.com/YouTube/user/universolorlando>. Last access 30th October 2020.

³⁷ [Welcome Back to Universal Orlando](#). Last access 30th October 2020.

³⁸ Source: VidQ pro, data of retrieval Oct 20th. <https://vidiq.com/>.

The total views on the Universal Studios Channel on the week this video was published were 226.461 views with the selected video counting for 24.55% of the total views.³⁹

Published after parks were reopened, this video displays a very different approach in terms of communication. Whereas the previous video relied mostly on the power of images and music, the video published after the pandemic outbreak chose a very differentiated approach in terms of communicative strategies.

The video opens with a staff member welcoming back guest with giant air hugs: “Finally the time has come for welcome backs. Glad to see you and giant, yet distant, air hugs. It’s time to see all those smiling eyes we love so much”.⁴⁰ The speaker, a smiling and reassuring host, engages viewers by explaining how they will take part in safety protocols while visiting the park. All the measures are clearly explained, and protocols are listed carefully with the aid of images. Enthusiasm is not lost but channeled via very clear communication; when visiting the park guests are asked to respect social distancing, wear protective face coverings, wash hands frequently and follow icons and indications related to safety protocols. Apparently, the aim is to prepare visitors to return to the park in safety and assure them of the organization’s respect for strict protocols.

The language exploits all the techniques of persuasive communication. In order not to be too mandatory, the rules are suggested with softening lexical and syntactical choices. For example, “If you have a temperature of 100.4 degrees Fahrenheit. That’s 38 degrees Celsius or higher, you will not be permitted to enter. So, we’re gonna need you to stay home until you feel better” or “When you come to visit, you’ll need to wear protective face coverings”.⁴¹ Avoiding the use of modal verbs such as *must* or the use *have to*, sentences are aimed at reassuring the guests avoiding to appear too patronizing. This is the work done by marketers that are fully conscious of the guest’s need to be reassured and welcomed safely. The Park also reassures potential visitors about the ‘contactless’ experience they will experience with the use of their app to join the virtual line and to order food to be picked up or served to them. Again, the communicative style is not coercive and is carefully softened: “If you don’t have it, you’ll wanna download it”.⁴² The video closes with due recommendations: “older adults and people of any age who have serious underlying medical conditions might be at higher risk for severe illness from COVID-19.

³⁹ Source: <https://socialblade.com/YouTube/user/universalorlando>.

⁴⁰ [Welcome Back to Universal Orlando](#). Last access 30th October 2020.

⁴¹ *Ibid.*

⁴² *Ibid.*

Guests should evaluate their risk in determining whether to attend. People who show no symptoms can spread COVID-19 if they are infected, any interaction with the general public poses an elevated risk of being exposed to COVID-19 and we cannot guarantee that you will not be exposed during your visit”.⁴³ Wisely, they reassure guests about the safety protocols but honestly, they state they cannot guarantee guests will not be exposed to the virus. The dialogue established with the guests is not merely emotional, but it also covers health issues.

The final payoff is a general thank you for the cooperation - “We appreciate your cooperation during this unprecedented time. Of course, there is a lot that has changed very quickly but your awesomeness never will”⁴⁴ - which is shot through with emotional content to highlight the awesomeness of the guests.

Universal Orlando clearly had in mind that there is a new normality at play and conveying their safety protocols became one of their selling points.

In this virtual journey across theme parks, in order to reach Italy, we flew over Europe and stopped in Paris to look at Disneyland Paris, another well-established and notorious player in the industry with two theme parks known as Disneyland Park and Walt Disney Studios, welcoming respectively 9.745.000 and 5.245.000 guests in 2019.⁴⁵

A very ‘social’ theme park, Disneyland Paris actively uses Facebook, Instagram, Twitter, and YouTube as social media channels. Their YouTube channel has 170.000 subscribers and was created in 2007. The channel average⁴⁶ engagement rate is around 2-3%.⁴⁷

The first video, a post-COVID-19 video, entitled “Post-COVID #DisneylandParis #NoMagicWithoutYou #TimeForMagic”, received 17.504 views with a good engagement rate around 4.8%. It scored 421 likes and 8 dislikes with a 1.3 % likes ratio. Of which 86.1% is from YouTube engagement and 13.9% from Facebook.⁴⁸ The total views on the Disneyland Paris

⁴³ *Ibid.*

⁴⁴ *Ibid.*

⁴⁵ TEA/AECOM 2019 Theme Index and Museum Index: The Global Attractions Attendance Report. Publisher: Themed Entertainment Association (TEA) Research: Economics practice at AECOM. <https://aecom.com/theme-index>.

⁴⁶ <https://www.YouTube.com/watch?v=eltRfhEKhOo&t=35s>. Last access 30th October 2020.

⁴⁷ Source: <https://www.influenex.com/YouTube/channel/UC1t74cS15eURW0YCpsRaDuw>.

⁴⁸ Source: VidQ pro, data of retrieval Oct 20th. <https://vidiq.com/>.

Channel on the week this video was published were 45.332 views with the selected video accounting for 38.61% of the total views.⁴⁹

This video from Disneyland Paris starts with a playful scene from the *Incredibles* movie where the superhero dad hides in his office while coordinating his next moves. Likewise, in the Disneyland Paris video a French father is in his office booking tickets online for the family to go visit Disneyland Paris. The man shows his excitement that he and his family can have an adventure together once again. Once the family arrives at the entrance, they notice the signage that masks are needed to enter over the age of 11 years old, so their daughter puts on a mask. They enter the park through a social distancing line and use the contactless QR code tickets to enter and use the Disney app to reserve ride times and restaurant reservations. Before riding on the Tower of Terror the son is excitedly walking through the pre-ride entrance when he approaches a hand sanitizer station and stops to sanitize his hands. The ride is loaded with respect to the new social distancing order of spacing out the guests and reducing the number of guests on the ride once seated; all the guests are clearly excited to experience the ride. After the ride the family enjoys a meal at a restaurant they booked through the Disney Land Paris app. Following the meal, the family visits the gift shop with various Disney merchandise. Inside the eager son runs to and fro inside the store showing off the cool items he finds in the store to his family, but the parents point out a sign explaining that you should only touch the items you wish to purchase. At the check-out, the father pays with a tap of his credit card on the machine. Out in the park the family has a meet and greet with Donald Duck but from a distance and takes a selfie with Donald Duck in the background. The family ends their day by checking into their hotel room at the resort welcomed by a cleaning lady who has just finished sanitizing the room. The experiences the family had conveyed their genuine positive emotions throughout their Disneyland Paris day. Once in their room they take off their masks and relax. The video shows and explains that each room is thoroughly cleaned and disinfected and that guests will be able to “sleep like a hero in peace”.⁵⁰

Interestingly, the video is in French, but it is subtitled in English on YouTube. That may be due to the fact that they were only expecting domestic travelers. The message exploits music and onscreen text and is not accompanied by a narrating voice or by a staff member contribution.

⁴⁹ Retrieved on <https://socialblade.com>.

⁵⁰ <https://www.YouTube.com/watch?v=eltRfhEKhOo&t=35s>. Last access 30th October 2020.

The second video, “Disneyland Paris - Mickey et ses amis règlent les derniers détails avant votre arrive...”⁵¹ received 38.644 views with a great engagement rate around of 10%. It scored 1.621 likes and 11 dislikes with a 5.2% likes ratio. Of which 75.1% is from YouTube engagement and 24.9% from Facebook.⁵² The total views on the Disneyland Paris Channel on the week this video was published were 45.332 views with the selected video counting for 85.25% of the total views.⁵³

This second Disneyland Paris video starts with the magic and performance of what Disney is best known for but with a subliminal post COVID-19 twist. A courier is running through Disneyland Paris at night to deliver an important message. An attendant receives the envelope that reads “make way for magic” and blows the emergency trumpet. In a quiet and empty park, Mickey and Minnie are strolling through the attraction when they are alerted that extra final touches are needed before guests arrive the next day. All their friends, Donald Duck, Goofy, Chip and Dale help with dusting and setting up the red carpet. The excitement levels are constant throughout the video knowing that what makes Disney so fun and thrilling is the guests that visit every day. It ends with Mickey alone waving in front of the iconic Disney castle with no crowd of people in sight for the reopening of Disneyland Paris. Companies like Disney are now including message disclaimers regarding marketing content recorded pre COVID-19 and still being used. It is perhaps a small but important change that companies like Disney want to make sure people understand, that even in these very different times, and regardless of COVID-19 changes to Disney, the magic lives on at the parks.

For the purpose of the analysis, Leolandia, a theme park located in Bergamo, in the North of Italy, was selected. The park welcomed 1.500.000 visitors in 2019.⁵⁴ In 2020 it closed the season earlier than on October 26 following the government regulation published a couple of days previously (DCPM24/10).⁵⁵

⁵¹ <https://www.youtube.com/watch?v=54OJm4IrnAw>. Last access 30th October 2020.

⁵² Source: VidQ pro, data of retrieval Oct 20th. <https://vidiq.com/>.

⁵³ Source: <https://socialblade.com/YouTube/user/disneylandparis>. Last access 30th October 2020.

⁵⁴ <https://timemagazine.it/leolandia-stagione-via-divertimento-sicurezza/#:~:text=A%20pieno%20regime%20il%20parco,500.000%20provenienti%20da%20fuori%20regione>. Last access 30th October 2020.

⁵⁵ In Italy, the first known case of COVID-19 was reported on February 21st, 2020, in Codogno, (Lombardy). Since then, “the virus has spread exponentially in Northern Italy and throughout the state” registering on February 23rd, 2020 the first cases in Bergamo. “On March 8th, 2020 in an attempt to contain the epidemic, a decree of the Italian Prime Minister extended the red areas to the entire area of Lombardy and to other 14 Italian provinces”.

The Italian amusement park actively uses social media channels on Facebook, Twitter, and YouTube. Their YouTube channel is “made for kids” YouTube category, has 45.600 subscribers and was created in 2009. The average channel’s engagement is between 0.1% - 0.5%.⁵⁶

Since the COVID-19 outbreak, the channel has experienced a decrease in views. The metadata (likes/dislikes and engagement rates on YouTube) collected from Leolandia videos were also compared with data driven from the neuroscientific analysis (aimed at investigating differences in cognitive engagement).

The first video (henceforth Video A)⁵⁷ - entitled “a Leolandia è un'esperienza SICURAMENTE DIVERTENTE!” (“Leolandia is CERTAINly-SAFE-ly FUN!”) - shows the new safety guidelines after the COVID-19 spread.

The copy attached to the video is “Possiamo SICURAMENTE DIVERTIRCI insieme e per farlo sarà sufficiente osservare alcune regole del gioco: restiamo distanziati, indossiamo sempre le mascherine (sopra ai 6 anni) e laviamoci spesso le manine. Al resto penseremo noi!” (“We can SAFELY HAVE FUN together and to do so you just need to observe the rules of the game: let’s stay spaced, always wear masks (over 6 years old) and wash our little hands often. We will take care of the rest!”).⁵⁸

The logo of Leolandia with its mascot and a blue background opens the video accompanied by exciting music. On a sunny morning, a family wearing summer clothes, walks from the parking lot toward the entrance of the park. They are wearing masks. They see another family wearing masks having their temperature measured by a team member using an electrical thermometer. The team member wears a uniform, protective face covering, and gloves.

They (the families and the team members) all have a positive attitude, portraying happiness and excitement via their gestures and facial expressions. There is no crowd, just the two families mentioned and a team member.

The family keeps moving toward the gates of the park where they have their tickets scanned by another team member in uniform wearing a mask. The family sees the park mascots in the

<https://www.wfns.org/WFNSData/Uploads/files/Effects-of-the-COVID-19-Outbreak-in-Northern-Italy-Perspectives-from-the-Bergamo-Neurosurgery-Department.pdf>.

⁵⁶ Source: <https://www.influenex.com/YouTube/channel/UCWks3LasTz8ff01YMJWtHFQ>. Last access 30th October 2020.

⁵⁷ [a Leolandia è un'esperienza SICURAMENTE DIVERTENTE!](#). Last access 30th October 2020.

⁵⁸ *Ibid.*

distance. The team member asks the families to position themselves on a special sign on the floor to meet the mascots. They then get escorted towards a gel sanitizer distributor to wash their hands. The two families keep following the same team members towards a ride loading zone. They get positioned behind the gates to wait for boarding. They are then seated, leaving an empty seat in between each passenger.

The logo of Leolandia with the mascot and a blue background and a message (“sicuramente divertente” in Italian, “Certainly fun”) closes the video.

From a linguistic perspective, Leolandia chose not to add a narrative voice to the video, thus limiting their content to music accompanying dynamic images of happy families enjoying the park wearing face coverings and respecting social distancing with the support of the staff. The safety protocols are outlined within the video with onscreen text written in a fun font in the several scenes. The lack of a narrator, a voice talking to the viewers, seems to reduce the emotional engagement that other videos with similar content create, as we shall see in the examples below.

The Leolandia video received 6.860 views with an engagement rate below 1%. It scored 19 likes and 3 dislikes. Of which 91.7% from a YouTube engagement and 8% Facebook engagement. The total views on the Leolandia Channel on the week this video was published (June 22nd - June 29th, 2020) were 37.885 video views.⁵⁹

The second video (henceforth video B) by Leolandia is entitled “Il divertimento triplica!”⁶⁰ and was published on July 27th, 2020, four months after the COVID outbreak (March 2020). It has a different vibe compared to the safety guidelines video analyzed previously.

The video received 13.000 views with an engagement rate below 1%. It scored 40 likes and 6 dislikes with a 1% likes ratio. Of which 100% from a YouTube engagement.⁶¹ The total views on the Leolandia Channel on the week this video was published (July 27th - 3rd August 2020) were 42.271 video views.⁶²

The video was posted with the following copy “Una giornata non basta per vivere tutte le LeoEmozioni di Leolandia! Vieni entro agosto e torni gratis per Il Natale Incantato!” (“A day is

⁵⁹ Source: <https://socialblade.com/YouTube/user/minitalialeolandia>.

⁶⁰ <https://www.facebook.com/watch/?v=315874872932809>.

⁶¹ VidQ pro, data of retrieval Oct 20th. <https://vidiq.com/>.

⁶² <https://socialblade.com/YouTube/user/minitalialeolandia>.

not enough to live through all the LEO-emotions. Come before the end of August and you will get a free ticket for our Enchanted Christmas!”).⁶³

Video A starts with shots of the park from above and then the entrance with the Leolandia characters, waving welcoming guests into the park. A number of the shots are focused on the live performances in various locations, the costumes of the performers and characters you can meet and greet such as Bing⁶⁴, Miraculous Ladybug⁶⁵ and PJ Masks.⁶⁶ Next, the video shows off their popular attractions for kids, Masha and Bear attraction and PJ Masks City area and a Bing performance. Afterwards you see guests on a roller coaster leaving the platform for their ride. The camera follows along, and you ‘experience’ the thrill of what it is like to ride a roller coaster. The PJ Mask city gets a quick walk through from a ride on the plane roller coaster to an exhibit area with some of the PJ Mask tools showcased and the PJ Mask characters themselves waiting for meet and greets. After a quick view of the gift store the video ends with the Leolandia characters waving goodbye and an aerial pan out to encompass the entire park. The video remains overall enthusiastic, focusing on guests’ positive emotions during their visit to Leolandia.

For this video, Leolandia chose to skip onscreen texts, subtitles or voices placing emphasis instead on engagement through music and images of the most entertaining attractions; as if to say, let fun speak for itself. It is clearly a marketing strategy to target the younger audience who typically watch videos and do not want to be ‘disturbed’ by the text. The video, presented with an intro promising guests free entrance at Christmas if they come in August is clearly aimed at repopulating the park for the summer, ‘surfing the wave of optimism’ that made the industry hope for a return to the parks after the lockdown was lifted.

Video B starts with the Leolandia logo and then pictures guests arriving at the park. This time, on arrival the guests are shown to be wearing masks, if over the age of 6, and everyone’s temperature is checked at the entrance. The entrance line shows guests socially distanced, and the park only lets in a limited number of guests at a time. Next, at a performance, an employee with a mask, shows guests to a designated circle from where they can watch. Throughout the

⁶³ <https://www.facebook.com/watch/?v=315874872932809>. Last access 30th October 2020.

⁶⁴ [https://en.wikipedia.org/wiki/Bing_\(TV_series\)](https://en.wikipedia.org/wiki/Bing_(TV_series)). Last access 30th October 2020.

⁶⁵ https://en.wikipedia.org/wiki/Miraculous:_Tales_of_Ladybug_%26_Cat_Noir#:~:text=10%20External%20links-Plot,objects%20known%20as%20the%20Miraculous. Last access 30th October 2020.

⁶⁶ <https://www.pjmask.com/>. Last access 30th October 2020.

park, there are hand sanitation stands to sanitize regularly, especially before entering a ride. In the final scene, before guests are seated in a ride, an employee wearing a mask shows that families can be seated together on rides but are safely separated from other families. The changes due to COVID-19 are obvious in this video, but overall, it can be seen that Leolandia is open, safe and guests are able to enjoy their favorite attraction or ride once again.

In the case of Leolandia, located in a region particularly hit by COVID-19, we have seen a lower number of views for the post-COVID video A (“a Leolandia è un’esperienza SICURAMENTE DIVERTENTE!”) showing safety measures and the ‘new normal’ look of a visit to the park. In this case the engagement rates did not differ significantly compared to the video B (“Il divertimento triplica!”) showing images of a fun day in the park. Video B “Il divertimento triplica!” received 13.000 views and video A “a Leolandia è un’esperienza SICURAMENTE DIVERTENTE!” 6.860 views, both videos had a low engagement rate below 1%.

3.1. Discussion on meta data results

From the analysis of the online performance of the selected videos, we have seen how new types of messages including safety and health procedures are being communicated. By studying YouTube meta data, we have highlighted that after the spread of COVID-19 Universal Orlando’s video about health and safety procedures in the park performed better in terms of number of views compared with the pre-COVID video (respectively *Welcome Back to Universal Orlando* scored 55.586 views while *This Is Universal Orlando* obtained 47.920). This is probably a consequence of a strong interest from the online viewers regarding the new guidelines for visiting the parks. On the other hand, users engaged more with the pre-COVID video, as that video scored a higher engagement rate compared to the channel’s average (*Welcome Back to Universal Orlando* had a 1.7% engagement rate while *This Is Universal Orlando* registered a 2% engagement rate - above the channel average between 1% - 1.5%).

Similarly, for Disneyland Paris we have seen a higher engagement rate for the video not showing masks and specific safety guidelines and more emotional content. This video registered almost twice the number of views and engagement rate compared to the safety video (respectively *Disneyland Paris - Mickey et ses amis règlent les derniers détails avant votre arrivée...* registered 38.644 views and a 10% engagement rate, while *Enhanced health and safety measures at Disneyland Paris* scored 17.504 and a 4.8% engagement rate).

As for Leolandia, the authors believe that after COVID-19 the analyzed videos display a trend where the videos depicting ‘the new normal’ (with masks and physical distancing) are scoring a lower engagement rate. Currently, living in a new world full of uncertainty with potential health and safety risks, might be a natural obstacle to carefree emotions and to the natural research for happiness and free time activities. People getting used to living their entire lives at home and being afraid to go out and meet people may in fact be a deterrent to emotional engagement.

4. Neuromarketing research on Leolandia theme park

With the aim of understanding communication effectiveness, we applied a neuromarketing research method to investigate YouTube audiovisual messages by Leolandia park during the pandemic emergency (video A and B).

In our research we used different technologies: an eye-tracker to detect and analyze visual attention and the gaze path and a skin conductance sensor to register guest’s emotional experience through emotional arousal.

All these data were measured in time with the video, allowing a frame-by-frame temporal analysis of the experience to determine *what the consumer was feeling*, and which specific element caused that emotional engagement.

As well as allowing direct access to information that is difficult to rationalize, neuromarketing methods, unlike traditional research, require smaller samples. The small cluster is explained by the objectivity of the data collected during the test phase.

A total sample of 20 habitual travelers between 18 and 24 years old participated in the research study. A stratified sampling method that considers gender, age, and randomization is crucial. All participants gave their informed consent prior to participation.

The socio-demographic characteristics were selected in order to reflect the main target of the YouTube channel in which the videos were shown in order to have comparable data.⁶⁷

The test was conducted in a laboratory set to control confounding variables.

Participants were first welcomed and informed that they were going to take part in a study that required them to watch some videos. They were not informed about the specific aim of the research. Participants were assigned randomly to one of the two experimental groups, based on

⁶⁷ Source <https://www.influenex.com/YouTube/channel/UCWks3LasTz8ff01YMJWtHFQ>.

the videos they were going to watch. Participants conducted the test one by one. They wore the skin conductance sensor and were presented with the theme park videos on a pc embedded with an eye-tracking technology. While watching the video, participants' eye movements and skin conductance level were recorded simultaneously and continuously.

One-minute baseline assessment was conducted to avoid the influence of individual differences in psycho-physiological parameters. In particular, to control individual differences, participants were exposed to a neutral documentary before watching the theme park commercial.

As a benchmark, to detect the parameters of the resting state of the participant, a non-emotional documentary was shown, consisting of simple images of underwater life and neutral music (Piferi *et al.*, 2000). The choice of this type of stimulation, a practice consolidated within the field (e.g., Vecchiato *et al.*, 2014) was chosen to create a situation that was comparable to the target stimulus, that is a dynamic video, but at the same time a stimulus of neutral valence was needed. This choice allows us to verify the actual activation resulting from the advertising stimulus (Piferi *et al.*, 2000). The data regarding physiological activation during the documentary were used as a neutral activation benchmark for each subject.

The skin conductance method was used as an index of emotional activation of the subject (Bolls *et al.*, 2001; Bradley and Lang, 2000; Lang, 1995; Ravaja, 2004; Schneider *et al.*, 2004; Sequeira *et al.*, 2009) which can represent the level of arousal using the Lang model of emotions relying on psycho-physiological measures.

This parameter was also used in the context of analysis of commercials (Kohan, 1968; Lajante *et al.*, 2012; Ohme *et al.*, 2009; Peacock *et al.*, 2011; Vecchiato *et al.*, 2014).

The skin conductance signal was synchronized with the eye-tracking system. The sampling frequency for measuring the physiological signals was set at 256 Hz.

We calculated the differences between the mean value of baseline condition and the mean value of the video exposure to compare the average emotional engagement without the influence of individual differences in physiological activation.

The eye-tracker recording of the gaze position was synchronized with the detection of the psycho-physiological parameters, to determine the *key elements* of each scene that caused the emotional reaction aroused in the spectators.

We ran a t-test to make a comparison between the videos shown to the two groups for average engagement.

Moreover, the pattern of emotional activation was analyzed for each video synchronized with the gaze position on the screen to verify which specific elements elicited the emotional response. The two videos showed a different average emotional engagement. Leolandia Video A (“a Leolandia è un’esperienza SICURAMENTE divertente”) caused on average a higher increase of engagement from the baseline (Table 1) that was statistically significant ($t = 2.238$; $df = 18$; $p < .05$).

Table 1 - average increase of emotional engagement from the baseline

	Leolandia Video B	Leolandia Video A
Mean	0.174 μ S	0.278 μ S
Standard deviation	0.07	0.13

Moreover, the pattern of emotional engagement was different: the Leolandia Video B (“Il divertimento triplica”) was characterized by a linear pattern of emotional activation, showing an initial increase for the first 8 seconds, then the pattern decreased. The only two moments that caused a low emotional engagement increase were two dance sequences (Figure 1).

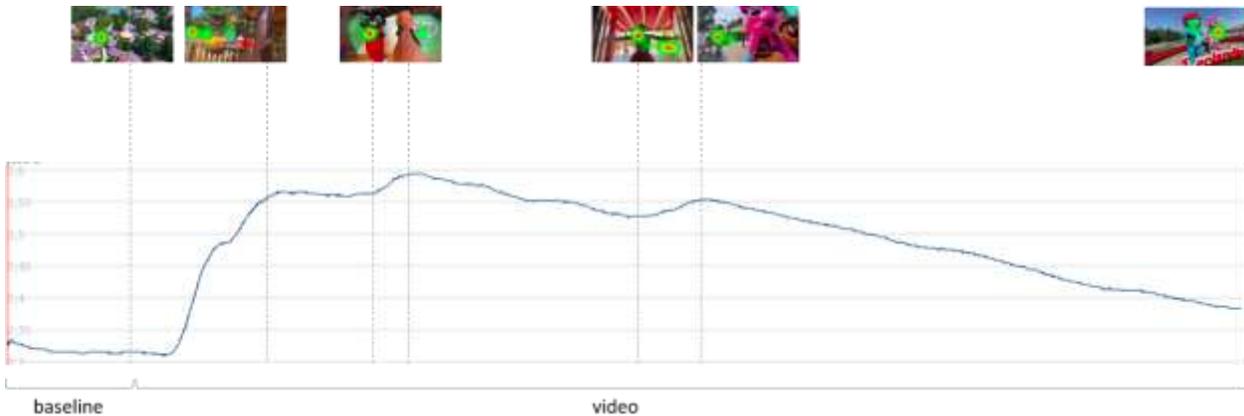


Figure 1 – Leolandia Video B. Pattern of emotional activation synchronized with visual attention (in red the most viewed areas).

This kind of emotional pattern demonstrates a higher level of engagement effectiveness in the first half of the video compared to the second part. This could be a minus, because people could stop watching the video, and because the name of the park appears at the end of the video when the emotional activation is already low.

The Leolandia Video A (“a Leolandia è un’esperienza SICURAMENTE divertente”) presented a more various pattern, with several peaks of activation (Figure 2).

Like the other video, the first 9 seconds caused an increase of engagement. This is a positive result as in the first scene the name of the theme park appears.

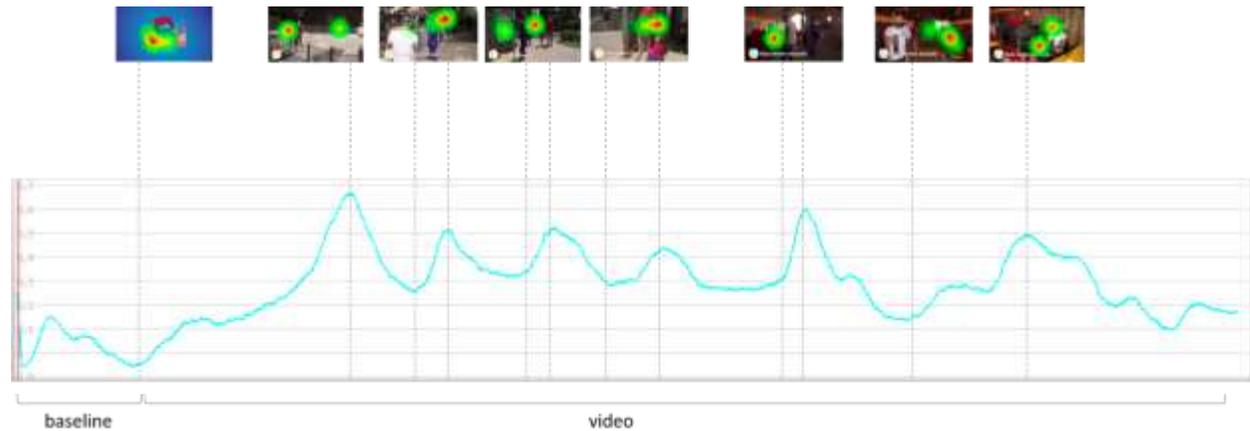


Figure 2 Leolandia Video A communication. Pattern of emotional activation synchronized with visual attention (in red the most viewed areas).

The first part of the video, characterized by an increase in the emotional engagement level, is mainly images showing the entrance to the theme park accompanied by background music. There is some text describing the security measures that are on average not seen except for the new distancing measures at the entrance (Figure 3).



Figure 3 – Visual attention focus (in red the most viewed areas)

This is relevant because in the scenes that elicited peaks of arousal, there is a lack of attention to the indications, thus people are aroused by the images and music, not by the text and they will not remember the information provided because they did not pay attention to it. (Figure 4).



Figure 4 – Visual attention focus (in red the most viewed areas) in the higher emotional activating scenes

5. Comparison between meta data and neuroscientific data: towards an integrated approach

The use of an integrated approach helped authors to examine both meta data (the responses to the audiovisual products produced by theme parks before and after the pandemic) and neuroscientific small data (analysis of consumer behavior and unconscious dimensions in decision making).

In the present research, data from the YouTube channels revealed a small difference between the two videos from Leolandia, thus a neuromarketing approach could be useful to understand whether the results related to the online engagement could be due to a lack of difference between the two videos in terms of engagement, or could be attributed to other causes, for instance, the YouTube channel's performance.

Indeed, if the meta data collected throughout the analysis of the online engagement of the video on the YouTube channel when comparing pre- and post-COVID-19 type of content showed small differences, the neuroscientific analysis found that the two typologies of videos showed significant different averages of emotional engagement.

On the one hand, data collected from the market especially relating to human behavior and interaction could be analyzed to reveal patterns, trends, and associations; on the other hand, analyzing consumer behavior and the unconscious dimensions which are at the basis of decision making could be extremely useful too. Indeed, combining different kind of data, it is possible to understand “how”, that is what is happening, and the “why”. Thus, it is possible not only to make previsions, but also to drive some phenomena with a strategy based on objective and more reliable data. Behavioral data and data about viewers' engagement could, for instance, help to identify more engaging communication strategies. Analyzing communication content with a neuromarketing approach allows to truly understand what is particularly effective in terms of attention and emotional engagement, based on the more spontaneous and unaware part of viewers' reaction. Having a measure of the emotional response frame-by-frame allows to identify the specific elements that trigger a positive or negative reaction. With these information, marketers and companies could build the best strategy to promote their services, to efficiently communicate contents, and to promote behaviors that could be safer.

The authors believe that this integrated and multidisciplinary approach could support content creators to effectively communicate with guests particularly when they are delivering important safety information and setting new expectations. The described approach could be useful for understanding how to communicate more effectively with the target audience building and improving effective communication. It is possible to compare the effect of the message on different targets to understand how to improve it or to adapt it for different situations or contexts. The meta data from the interaction on social media channels could also be used after the optimization based on the neuromarketing small data results to verify whether the changes have been effective in modifying audience behavior. This ‘circular’ merged approach could be crucial to create an effective communication strategy.

Thanks to the merging between quantitative analytics data and qualitative data obtained through neuroscientific measurements and know-how, brands could have the opportunity to improve their online presence and their communication to present themselves to their target audiences in more convincing and stimulating ways.

It is also possible to compare the effect of the message on different targets to understand how to improve it or to adapt it for different situations or contexts. In this specific case, the context was a post-pandemic scenario in which communication is the key to transmit safety and experience. Finding the best way to communicate these dimensions could be crucial to provide some help to recovering from the devastating effects of the COVID-19 pandemic on the hospitality industry.

References

Arndt, F. 2020. “Netflix has capitalized on social isolation, but will its success continue in a post-coronavirus world?”. Accessed October 30, 2020. [Netflix has capitalized on social isolation, but will its success continue in a post-coronavirus world?](#)

Batra, R., and M. L. Ray. 1986. “Affective Responses Mediating Acceptance of Advertising.” *Journal of Consumer Research* 13 (2): 234-50.

Bernucci, C., C. Brembilla, and P. Veiceschi 2020. “Effects of the COVID-19 Outbreak in Northern Italy: Perspectives from the Bergamo Neurosurgery Department”. Accessed October 23, 2020. <https://www.wfns.org/WFNSData/Uploads/files/Effects-of-the-COVID-19-Outbreak-in-Northern-Italy-Perspectives-from-the-Bergamo-Neurosurgery-Department.pdf>.

Bhuiyan H., J. Ara, R. Bardhan, and M. R. Islam. 2017. “Retrieving YouTube video by sentiment analysis on user comment,” 2017 IEEE International Conference on Signal and Image Processing Applications (ICSIPA), Kuching, 2017: pp. 474-478. Accessed October 23, 2020. <https://doi.org/10.1109/ICSIPA.2017.8120658>.

Bloom, L.B. 2020. “Ranked: The World’s 15 Best Virtual Tours to Take During Coronavirus”. *Forbes*. Accessed October 30, 2020. <https://www.forbes.com/sites/laurabegleybloom/2020/04/27/ranked-worlds-15-best-virtual-tours-coronavirus/#50b1bc1e6709>.

Chartrand, T. L. 2005. "The Role of Conscious Awareness in Consumer Behavior." *Journal of Consumer Psychology* 15 (3): 20. https://doi.org/10.1207/s15327663jcp1503_4.

Dominici, L. 2020. "Hotel: il Covid-19 costerà un calo di fattura del 50-65%." Accessed October 30, 2020. https://www.ilsole24ore.com/art/hotel-covid-19-costera-calo-fatturato-50-65percento-ADqdJBv?utm_term=Autofeed&utm_medium=LISole24Ore&utm_source=LinkedIn&fbclid=IwAR3DNwqDegpIz6V_jDVdaYBuhVxYCsPqxW5dFFoFZs4_fyFm9dJ5agVIOuE#Echobox=1602489716.

Du Plessis, E. 2005. *The Advertised Mind*. London: MillwardBrown.

Edell, J.A., and M.C. Burke. 1987. "The Power of Feelings in Understanding Advertising Effects." *Journal of Consumer Research* 14 (3): 421-33. <https://doi.org/10.1086/209124>.

English, B. C. 1990. "Consumer Emotional Reactions to Television Advertising and their Effects on Message Recall" In *Emotion in Advertising: Theoretical and Practical Explorations*, edited by S. Agres, J. A. Edell and T. M. Dubitsky, Westport, CT: Quorum Books: 231-253.

Hall, B. R. 2002. "A New Model for Measuring Advertising Effectiveness." *Journal of Advertising Research* 42 (2): 23-31. <https://doi.org/10.2501/jar-42-2-23-31>.

Harper, J. 2020. "Disney Plus racks up 50m subscribers in five months. BBC News". BBC News April 9, 2020. Accessed October 20, 2020. [Disney Plus racks up 50m subscribers in five months.](#)

Hazlett, R., L. Hazlett, and S. Yassky. 1999. "Emotional Response to Television Commercials: Facial EMG vs. Self-Report." *Journal of Advertising Research* 39 (2):7-23.

Huang, M.H. 2001. "The Theory of Emotions in Marketing." *Journal of Business and Psychology* 16 (2): 239-247.

Johnson, K.S. 2019. "What Is Tourism Marketing?" *Chron.* Accessed October 30, 2020. <https://smallbusiness.chron.com/tourism-marketing-56473.html>[https://smallbusiness](https://smallbusiness.chron.com/tourism-marketing-56473.html)

Kahneman, D., and A. Tversky. 1979. "Prospect Theory: An Analysis of Decision under Risk." *Econometrica* 47: 263- 291.

Kahneman, D. 2011. *Thinking, Fast and Slow*. London: Penguin

LeDoux, J.E. 1996. "Rethinking the Emotional Brain." *Neuron* 73 (4): 653-679. [https://doi.org/10.1016/j.neuron.2012.02.004.](https://doi.org/10.1016/j.neuron.2012.02.004)

LeDoux, J.E. 1996. *The Emotional Brain*. New York: Simon and Schuster.

Macchi, I. 2020. “Leolandia: stagione al via all’insegna di divertimento e sicurezza.” Time Magazine. Accessed October 30, 2020. <https://timemagazine.it/leolandia-stagione-via-divertimento-sicurezza/>.

Mai, Li-Wei, and G. Scholler. 2009. “Emotions, Attitudes and Memorability associated with TV Commercials.” Journal of Targeting, Measurement and Analysis for Marketing 17: 55-63. <https://doi.org/10.1057/jt.2009.1>.

Medina, J. 2010. Il cervello. Istruzioni per l’uso. Torino: Bollati Boringhieri.

Mothner, M. 2020. “Digital Transformation for Long-Term Growth. Think with Google.” Think with Google. Accessed October 30, 2020. [Digital transformation for long-term growth](#)

Osterholm, M.T. 2005. “Preparing for the Next Pandemic.” Foreign Affairs 84 (4): 24-37.

Penn, C. S. 2020. “Social Media Audience Trends During the Pandemic.” Trust Insights. Accessed October 25, 2020. <https://www.trustinsights.ai/resources/thought-leadership/whitepapers/social-media-audience-trends-during-the-pandemic/>.

Petty, R.E., Cacioppo, J.T. 1986. Communication and Persuasion. New York: Springer-Verlag.

Pino, N., and Roberts, S. 2020. "Disney Plus: how to sign up, movies, shows, Pixar's Soul and more explained." Tech Radar. Accessed October 30, 2020. <https://www.techradar.com/news/disney-plus-movies-shows-free-trial-hamilton-and-more-explained#:~:text=Disney%20Plus%20has%20already%20launched,America%20starting%20in%20late%202020>.

Poels, K., and S. DeWitte. 2006. "How to Capture the Heart? Reviewing 20 Years of Emotion Measurement in Advertising." *Journal of Advertising Research* 46 (1): 18-37. <https://doi.org/10.2139/ssrn.944401>.

Pololikashvili, Z. 2020. *UN Policy Brief on Tourism and COVID 19*, United Nations. Accessed October 30, 2020. [COVID-19 and Transforming Tourism](#).

Sadeh, G. 2019. "How Netflix Uses Big Data to Create Content and Enhance User Experience." ClickZ. Accessed October 30, 2020. <https://www.clickz.com/how-netflix-uses-big-data-content/228201/>.

Scott, C. and M. Avalos. 2020. "5 digital marketing predictions for a post-pandemic economic recovery." Think with Google. Accessed October 30, 2020. [Post pandemic economic recovery tips](#).

Simon, H.A. 1955. "A Behavioral Model of Rational Choice." *The Quarterly Journal of Economics* 69 (1): 99-118. <https://doi.org/10.2307/1884852>.

———. 1959. "Theories of Decision Making in Economics and Behavioral Science." *The American Economic Review* 49: 254-283. http://dx.doi.org/10.1007/978-1-349-00210-8_1

Sofronov, B. 2019. "The Development of Marketing in the Tourism Industry." *Annals of Spiru Haret University. Economic Series* 19 (1): 115-125. doi: <https://doi.org/10.26458/1917>.

Statt, N. 2020. "Facebook says coronavirus is pushing usage through the roof, but its business is hurting." *The Verge*. March 24, 2020. Accessed October 30, 2020. [Facebook says coronavirus is pushing usage through the roof, but its business is hurting.](#)

Stayman, D. M., and R. Batra. 1991. Encoding and Retrieval of Ad Affect in Memory. *Journal of Marketing Research* 28 (2): 232-39. <https://doi.org/10.2307/3172812>.

Vowinkel, S. 2020. "Escaping Locally: Summer Travel Trends. Think with Google." *Think with Google*. September 21, 2020. Accessed October 30, 2020. [Escaping Locally: Summer Travel Trends.](#)

Whitman, R. 2020. "Report: Zoom Sees 2000% Spike in New User Interest During Pandemic." *Media Post. News and Conferences for Media, Advertising and Marketing Professionals*. Accessed October 30, 2020. <https://www.mediapost.com/publications/article/351741/report-zoom-sees-2000-spike-in-new-user-interest.html>.

Winkielman, P., K.C. Berridge, and J. L. Wilbarger. 2005. "Unconscious Affective Reactions to Masked Happy versus Angry Faces Influence Consumption Behavior and Judgments of Value." *Personality and Social Psychology Bulletin* 31 (1): 121-35. <https://doi.org/10.1177/0146167204271309>.

Zaltman, G. 2003. *How Customers Think*. Boston, MA: Harvard Business School Press.

Zouni, G., and A. Kouremenos. 2008. "Do tourism providers know their visitors? An investigation of tourism experience at a destination." *Tourism and Hospitality Research* 8 (4). Papers presented at the 17th Annual International CHME Research Conference, Strathclyde, May 2008: 282-297. <https://doi.org/10.1057/thr.2008.30>.

Webography

Attractions Magazine. 2020. "Star Wars Stormtroopers Secure Disney Springs with New Social Distancing Measures." YouTube. May 27, 2020. https://www.youtube.com/watch?v=_cCmJX7fOmU.

Bureau of Transportation Statistics. n.d. "U.S. Airline June 2020 Passengers Decrease 80% from June 2019 but Rise 93% from May 2020 (Preliminary) | Bureau of Transportation Statistics." Bureau of Transportation Statistics. Accessed February 16, 2021. <https://www.bts.gov/newsroom/us-airline-june-2020-passengers-decrease-80-june-2019-rise-93-may-2020-preliminary>.

Contributors to Wikimedia projects. n.d. “Miraculous: Tales of LadyBug Cat Noir.” Wikipedia. Accessed February 16, 2021.

https://en.wikipedia.org/wiki/Miraculous:_Tales_of_Ladybug_%26_Cat_Noir.

———. 2015. “Bing (TV Series) - Wikipedia.” Wikipedia, the Free Encyclopedia. Wikimedia Foundation, Inc. January 7, 2015. [https://en.wikipedia.org/wiki/Bing_\(TV_series\)](https://en.wikipedia.org/wiki/Bing_(TV_series)).

Disney Parks. n.d. “Experience Updates.” Disney World. Accessed October 16, 2020. <https://www.disneyworld.eu/experience-updates/>.

———. 2020a. “Know Before You Go to Walt Disney World Resort.” Disney World Resort. YouTube. June 20, 2020. <https://www.youtube.com/watch?v=odxK1Zx5gR4>.

———. 2020b. “Cast Members Prepare to Welcome Back Guests at Disneyland, Walt Disney World & More.” YouTube. YouTube. June 23, 2020. <https://www.youtube.com/watch?v=xHx018fUZjI>.

Disneyland Paris. 2020a. “Disneyland Paris - Mickey et Ses Amis Règlent Les Derniers Détails Avant Votre Arrivée... ✨.” YouTube. July 13, 2020. <https://www.youtube.com/watch?v=54OJm4IrnAw>.

———. 2020b. “Des Mesures d’hygiène et de Sécurité Renforcées à Disneyland Paris ✨.” YouTube. July 23, 2020. <https://www.youtube.com/watch?v=eltRfhEKhOo>.

“How To Get More Views And Subscribers On YouTube – VidIQ.” n.d. VidIQ. Accessed October 16, 2020. <https://vidiq.com/>.

“Influenex - Find Influencer in a Free and Easier Way.” 2020. Influenex - Find Influencer in a Free and Easier Way. 2020. <https://www.influenex.com/>.

Leolandia. n.d. “Leolandia - Theme Park for Children.” Leolandia - Parco Divertimenti per Bambini. Accessed February 16, 2021. <https://www.leolandia.it/en/>.

———. 2020a. “A Leolandia è Un’esperienza SICURAMENTE DIVERTENTE!” YouTube. YouTube. June 23, 2020. <https://www.youtube.com/watch?v=NIR9Hib3ljU>.

———. 2020b. “Leolandia - Il Divertimento Triplica! | Facebook.” Facebook Watch. Leolandia. July 27, 2020. <https://www.facebook.com/watch/?v=315874872932809>.

“Media Consumption in the Age of COVID-19.” 2020. J.P. Morgan | Official Website. October 23, 2020. <https://www.jpmorgan.com/insights/research/media-consumption>.

PJ Masks. n.d. “PJ Masks Official Site | Home | News, Events, Show Information & More.” PJ Masks (Global). Accessed February 16, 2021. <https://www.pjmask.com/>.

Scott, Carolyn, and Miguel Avalos. 2020. “Post Pandemic Economic Recovery Tips - Think with Google.” Think with Google. ThinkwithGoogle. September 18, 2020. <https://www.thinkwithgoogle.com/intl/en-gb/consumer-insights/consumer-trends/post-pandemic-economic-recovery/>.

Social Blade. n.d. “Analytics Made Easy.” Social Blade. Accessed February 16, 2021. <https://socialblade.com/>.

“Theme Index.” 2020. AECOM. October 23, 2020. <https://aecom.com/theme-index/>.

“Theme Index Museum Index 2019.” 2019. Blooloop. Themed Entertainment Association. 2019. <https://blooloop.com/wp-content/uploads/2020/07/tea-report-2019.pdf>.

Think with Google. n.d. “Understanding the Consumer Mindset during Coronavirus - Think with Google.” Think with Google. Google. Accessed February 16, 2021.

<https://www.thinkwithgoogle.com/feature/understanding-consumer-mindset-during-coronavirus/#intro>.

UNESCO. 2020. “Museums Around the World: In the Face of Covid-19.” UNESDOC Digital Library. May 2020. <https://unesdoc.unesco.org/ark:/48223/pf0000373530>.

United Nations. 2020. “COVID-19 and Transforming Tourism.” United Nations. 2020. https://unsdg.un.org/sites/default/files/2020-08/sg_policy_brief_covid-19_tourism_august_2020.pdf.

Universal Orlando Resort. 2019. “This Is Universal Orlando.” YouTube. December 27, 2019. <https://www.youtube.com/watch?v=A78CpD47zag>.

———. 2020. “Welcome Back to Universal Orlando.” YouTube. YouTube. June 4, 2020. <https://www.youtube.com/watch?v=De1d6TIYkKw>.

UNWTO. 2020. “Global Guidelines to Restart Tourism.” UNWTO. May 28, 2020. <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-05/UNWTO-Global-Guidelines-to-Restart-Tourism.pdf>.

“WHO Coronavirus Disease (COVID-19) Dashboard | WHO Coronavirus Disease (COVID-19) Dashboard.” n.d. WHO Coronavirus Disease (COVID-19) Dashboard | WHO Coronavirus Disease (COVID-19) Dashboard. Accessed February 16, 2021. <https://covid19.who.int/>.