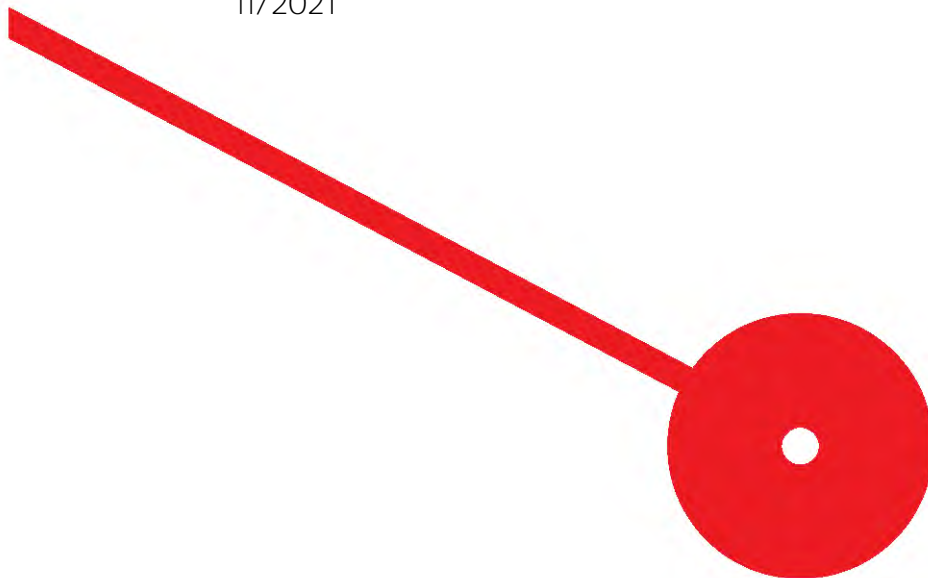


M

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DIGITAL MARKETING

The Age of Hybrid Events –
Amplifying the power of culture
through digital experiences
(Music Festivals feat. Technology)
Mariana P. Silva

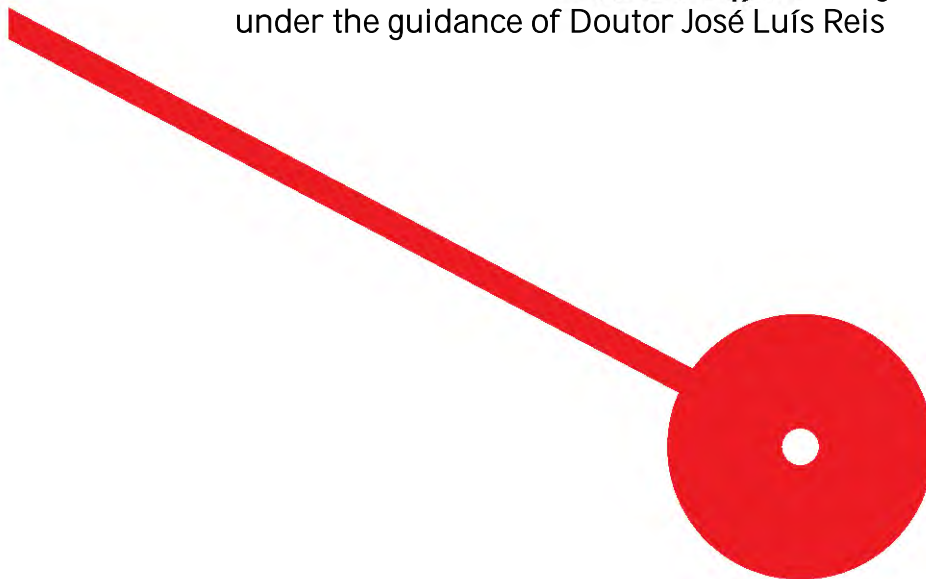
11/2021



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Master Thesis
presented to Porto Accounting & Business School
in order to obtain the **master's degree** in Digital Marketing,
under the guidance of Doutor José Luís Reis



“Culture, real proper culture breeds creativity and connection. Builds bridges, relationships, and life itself. So, we can take the power of technology and mix it with the power of culture and expand the reach and expand the potential for all those positive things that music, culture and art have. All those effects on people’s lives. And you can see the mad power of technology to amplify culture and connectivity and that is something that I really believe.”

Robin Collings

Dedication

“I was always an unusual girl,
My mother told me I had a chameleon soul.
No morall compass pointing due north, no fixed personality.
Just an inner indecisiveness
That was as wide and as wavering as the ocean.
And if I said that I didn’t plan for it to turn out this, I’d be lying.
Because I was born to be the other woman.
Who belonged to no one, who belonged to everyone.
Who had nothing, who wanted everything.
With a fire for every experience. And an obsession for freedom.
(...)
Every night I used to pray that I’d find my people
And finally, I did. On the open road.
We had nothing to lose, nothing to gain
Nothing we desired anymore...
Except to make our lives into a work of art.
Live fast. Die young. Be wild. And have fun.
I believe in the country America used to be.
I believe in the person I want to become.
I believe in the freedom of the open road.
And my motto is the same as ever.
I believe in the kindness of strangers.
And when I’m at war with myself, I ride. I just ride.
Who are you?
Are you in touch with all of your darkest fantasies?
Have you created a life for yourself where you’re free to experience them?
I have. I’m f***** crazy.
But I’m free.”
Ride by Lana Del Rey

This thesis is dedicated to my sister, Jéssica.

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To my friend, Rui Pedro Bessa. Partner of long conversations, best friend at all moments and like-minded person that never stops believing in me or supporting me. We have been growing side by side for 5 years and I could not be more happy that ISCAP brought us together, and that our resilience fortified this strong, mature and rich friendship that I am so proud of. The future is ours, siga!

To my therapist, Dra. Carolina. I will never be able to pay you back or thank you enough for completely changing my life, forever. You made me see who I truly am and the value that I have. Never for a second in almost 3 years you stopped believing in me or gave up on me. Everything that I am today – and that I am finally proud of – is because of your constant reminder that I am more than I thought I was. I am now prepared to pursue what I always aspired to and now I have all the necessary tools to be who I always wanted to be. I wish I could find a way to express my deep gratitude and I hope life is always so kind and generous to you like you always were to me.

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Bárbara, Lisa, Sarah, Lettuce, Filipe, Rachel, Renz, Berto, Hugo and all the members of the team, thank you for allowing me to be myself, to grow alongside you and teaching me so much about absolutely everything.

To my soulmate, Nicole Argyropoulou. Better than the blast we had in Romania is the friendship that we built afterwards. You are my twinnie, my sunshine. The most like-minded person of my life and 4000km are nothing compared to how close you are to me everyday. I miss you so much, Σ ΑΓΑΠΩΩΩΩΩ ΠΟΛΥ.

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Abstract

Music festivals represent a significant part of culture as identity shapers and experience providers. With the growing use of technology in all structures of society, music festivals are not aside and have been embracing technologies as a way of creating a value offer and differentiation factor. Livestreams, cashless systems, digital events along with the use of virtual reality and social media have been ways to create a meaningful and immersive experience to the attendees and promote engagement and commitment with the music festival as a brand. This study demonstrates exactly how the implementation of technology in music festivals, thus making them hybrid, affects the overall experience of the attendee. It shows the advantages, challenges and in what specific ways it can affect the event for the promoters and the attendees, along with what aspects organizers need to acknowledge when considering embracing hybrid experiences in their festivals. It creates awareness and raises debate about this increasingly reality, providing the organization trustworthy insights about the topic of digital and/or virtual experiences.

Key words: music festivals, digital events, virtual events, hybrid experiences, overall experience

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List of abbreviatures

VR – Virtual Reality

AR – Augmented Reality

FAQs – Frequently Asked Questions

AI – Artificial Intelligence

RFID – Radio Frequency Identification

UGC – User-generated Content

TAW – Tomorrowland Around the World

QF – Queima das Fitas

FAP – Academic Federation of Porto

INTRODUCTION

Music festivals achieved a status where they are considered major cultural moments, making its attendance an experience that many people crave (Gajanan, 2019). The growth of music festivals, the live music industry and technology resulted in the general proliferation of their performance in the media (Holt, 2010) in various forms. Currently, technology plays a key role in the celebration of live music, enabling social and cyber spaces (Jones & Bennett, 2015) where organizers can find ways to engage with their audiences (Raso, 2016). With this, it is no longer viable to look at offline and online experiences as separate and exclusive categories (Jones & Bennett, 2015), thus creating the concept of hybrid experiences. Which, in the case of music festivals, are the ones that combine offline strategies with the implementation of technology and/or embrace digital and/or virtual events.

All live performances are influenced by the economic reality (Auslander, 1999) and 2020 was a year where digital experiences escalated due to the cancellation of all physical events. However, the new ways of live music allow artists to perform multiple live concerts at different locations simultaneously (Chidekel, 2021), both digitally and live. Which led to people now wanting to choose and control how they attend an event (Lovatt, 2021). The proliferation of hybrid models and especially digital experiences raised debate around their viability and capability of providing the same or a similar experience to the attendee.

With this being said, the subject of study of this research focuses on demonstrating how the overall experience of the attendee in a hybrid music festival may be affected. Approaches how the implementation of technology in the physical venue can improve the experience of the festivalgoer. However, it focusses mainly in the digital and/or virtual experience for the attendee and how it can co-habit with the physical one.

The rapid growing of digital and/or virtual experiences and subsequent hybrid models raises questioning. The main question of this study is: how the implementation of technologies – transforming music festivals into hybrid events – affects the overall experience of the attendee? Also, in what ways technology can improve the music festival? What are the advantages in adapting an in-person festival to a digital/virtual one? What about the challenges? Are immersive digital and/or virtual events capable of providing the same experience as the physical ones?

Understanding the impacts and effects that a hybrid model has on the overall experience of the attendees' enables the music festival organizers to better communicate with the consumers (Harsløf & Hallberg, 2013). By knowing how hybrid events might affect them, they can think in more innovative marketing and digital marketing strategies to better reach their audiences. Also, scholars agree that improving the value offer of the experience for the festivalgoers is directly associated with their engagement (Robertson, Yeoman, Smith, & McMahon-Beattie, 2015). Because of this, Robertson et al. (2015) also consider that the "transformative and liminal capacity of the music festival experience is likely to be seen as central component" of the organizers' activity. So, by valuating and investing on a meaningful festival experience, organizers can seek true engagement and commitment from their attendees and perpetuate relationships with them.

Investigation about hybrid events – focusing mainly on digital and/or virtual events, the overall experience of the attendees and especially after the covid-19 pandemic –, is a subject that did not receive a lot of scholarly research. It is a growing reality that has been giving rise to conversations within the industry and a lot of professionals of the area are commenting about it. However, there is not much real time, practical and proper investigation about these experiences.

In recognition of this gap in the subject, this study intends to present the topic's current state of the art and information that might be useful for the music festival organizers when they consider investing on digital experiences and hybrid models in general. Also intends to be a trustworthy source of information that is based on the expertise of professionals – that directly or indirectly worked with these technologies – and have the knowledge and experience to elucidate the public about this theme.

The main goal of this investigation is to try to understand how the implementation of technologies and the adaptation to hybrid models affect the overall experience and if it can improve it. Furthermore, understand in what areas of the festival this can happen and in what ways as well. To acknowledge the advantages of a hybrid model and specifically a digital experience is one of the goals too, as are the challenges that it has. The last and ultimate goal of this research reveals to be the understanding if digital or virtual music events provide the same experience as the physical ones.

In what regards the organization of this study and its methodology, it is divided in 4 main parts – framework, study methodology, results analysis and discussion, and final considerations. The framework starts with an exploration of the concept of music festivals and their evolution until the current days, explaining how they became to be considered an experience, thus the roots of this term applied in music festivals with Woodstock Music & Art Fair. It is also made research on how they were commercialized and finishes by investigating the experience of a music festival as a hybrid event, demonstrating immersive technologies that are being implemented currently and giving two practical examples of digital and virtual events (Chapters 1 and 2).

The study methodology details how, when and with whom the data was collected, also explaining the steps of this process and why they were chosen. A qualitative method through semi-structured interviews was used for this investigation, and in the same chapter are presented the questions made to the interviewees and their usefulness to achieve the goals of this paper (Chapter 3).

In the results analysis and discussion is elaborated a deep exploration of the data collected, explaining all important subjects, and relating them between each other, thereby providing a coherent explanation of the interviewees' contributions. This is followed by a discussion where the concepts and ideas of the interviewees are co-related with the research made in the framework, therefore answering the research questions (Chapters 4 and 5).

The last chapter are the final considerations where an overview of the whole research is done and are enhanced the most important aspects investigated. The contributions of the study are presented as well as the impacts that it might have. The limitations felt throughout the study are pointed as well, along with recommendations for future investigations (Chapters 6, 7, 8 and 9). The research ends with the references used and attachments that are considered useful for a better understanding of some subjects.

1 Music festival as a transformative experience

1.1 Concept and evolutionary path

Music festivals are events consisting in a large variety of bands and musical artists performing shows, on numerous stages, over a period of days to a large audience (Gibson & Connell, 2003). The origins of music festivals date back to ancient Greece with the Pythian Games, involving competitions in music, arts and sports and being already a moment where people would come together to see these competitions and have fun in an environment that was not only about music (Gajanan, 2019). From the Pythian Games in 582 BC to the Scottish Mods in the 11th century and the Three Choirs Festival in the cathedrals of England in the 17th century – that attracted crowds to hear the works of Rossini, Mozart and Beethoven – festivals evolved and grew both in terms of number of festivals and the importance that they represent amongst various branches of arts (Dowd, Liddle, & Nelson, 2004).

The inception of the festival culture in the Western society can be traced to the first Newport Jazz Festival, which took place in Rhode Island (United States) in 1954. It was the first official jazz festival and one of the first official music festivals in the world. Around 13,000 people attended to hear jazz, gospel, and blues' performances by famous singers like Ella Fitzgerald and Billie Holiday (Marzarotto, 2018).

After that, festivals started to be associated with counterculture youth movements and hippie-inspired clothing (Rudolph, 2016). This was strengthened by festivals that happened in the next years like Monterey International Pop Festival in California – which was America's first ever major rock festival – where artists like Janis Joplin, The Who and Jimi Hendrix launched their careers (EDM Festival Insider, 2020). Monterey happened in 1967 and its atmosphere was so characteristic and special that it pioneered the “you had to be there” feeling modern music festivals strive to embody (Khawaja, 2017).

Marzarotto (2018) affirms that throughout the 1970s, the popularity of music festivals spread to the world and started attracting massive gatherings of mainly young people to enjoy the music and the festival itself. In addition, some festivals also evolved to other genres and subgenres of rock music, punk, metal, and others. One of these other genres was electronic music, which was considered “underground”. However, although it was also associated with the “rave culture”, it grew through the 1990s and in the late

millennium and beginning of the 2000s, the genre started to be commercialized and brought into festival culture with the creation of festivals like Electric Daisy Carnival.

During the early 2000s, festivals like Coachella, Bonnaroo and Tomorrowland had their first edition and completely changed the industry. Electric Daisy Carnival in Las Vegas started in 2003 with 5,000 people attending, 320,000 people in 2012 and reaching 400,00 in 2015 (Irion, 2016). Sub-genres of electronic music like techno, hardstyle, house, drum and bass, among others, also grew to become a genre “of their own” and be played in specific festivals like Awakenings Amsterdam, Boom Festival, Neopop or Untold, where people can enjoy this specific kind of music.

Modern music festivals have been shaped by increasingly wide cultures and cutting-edge tech and the 1990s convergence of the rock scene and electronic music’s raves were a turning point for these events (Haider, 2019). Festivals are events that have a cultural influence on hundreds of thousands of people (Rudolph, 2016) and can be considered to play a major role in the lives of their participants, since they are viewed as an opportunity to break free from our routine and have fun (Chakraborty, 2014).

Festivals are considered by their participants as a unique place: a site liberated from everyday rules, where the attendees can bond with strangers and stumble across new sounds and sensations (Haider, 2019). This helped creating the idea of “transformative festivals”, since encourages people to learn about nature, spirituality and themselves (Chamberlain, 2017), remaining a creative place where new expressions and arts can be conceived and explored (Haider, 2019).

1.2 The overall experience

Kinnunen (2018) defines the total festival experience as something that is constructed from the available experience elements and factors besides the festival’s core product (what is performed at the stage(s)) like available services, people, environment, food, drinks, other persons’ behaviour, and everything (tangible and intangible) that is present in a music festival. It can also be defined as the attendees’ interactions with planned activities (Chen, Singh, Ozturk, & Makki, 2014) and the social interaction (Arnould & Price, 1993) between the participants. Using spatial and temporal arrangements of event elements (Richards, Marques, & Mein, 2014), the festival experience has been scholarly conceptualized as transformative by Pine & Gilmore (1998) since it takes the participants out of their everyday routines.

Cole and Chancellor (2018) state that the festival overall experience can be divided into 3 main areas: programme-related features, amenity, and entertainment features. Programme-related features are not the core of the programme itself but supplementary programmes like commercials, outdoors, public displays, schedules, among others. Amenity consists of services like food, beverages, facilities, cleanliness, accessibility, etc and entertainment features which are the music, the appearance of the festival and the quality of them both. For a better understanding of Cole and Chancellor's (2018) concept of the overall experience, Figure 1 summarizes its concepts.

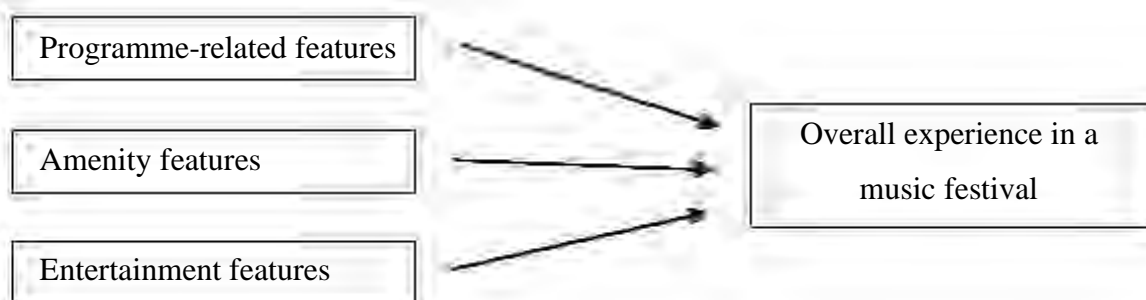


Figure 1: Cole and Chancellor's (2018) overall experience

On the other hand, Pine and Gilmore (1998) state that there are 4 experience domains: entertainment, education, escapism, and aesthetics. Entertainment experiences occur when and where people observe the activities that are happening in the festival like the shows, workshops, among others. Educational experiences are those solicited by festival attendees when they feel like their knowledge and skills may be improved with their participation in a festival. Escapism is related to the festivalgoers' desire to engage in a different experiential context that they would not usually engage in their day-to-day lives. Finally, aesthetic experiences consist of the attendees' overall evaluation of the physical environment of the venue.

Bennett et al. (2014) assert that music festivals are also places of definition of lifestyle, since they offer in terms of food, art, literature, and music accentuate and celebrate a particular form of lifestyle through socialization. This occurs because festivals provide the chance to engage in different social activities and relations with different people, encouraging debate about a big variety of matters. Moreover, Bennett and Woodward (2014) strengthen that the possibilities for cultural aggregation between like-minded people are huge within festivals and this is part of their attraction for both producers and consumers. They have the opportunity to coalesce, play together, find and create synergies and enrol in different activities and cultural tastes. Consequently, the

most positive overall experiences will result from engaging consumers in memorable offerings that have an affective component (Pine & Gilmore, 1998).

Rudolph (2016) states that music festivals influence people's emotions, engagement, relationships, and accomplishments since these now mega events provide hundreds of possibilities to make new friends and build lasting relationships with other festivalgoers. Providing physical activities such as yoga sessions, immersive brand activations and creative art projects, they encourage freedom of expression in many forms. Kinnunen (2018) also defends that music festivals are places capable of building one's identity since with all these experiences available to the participants, they encourage discussion and debate, offering means for identity building and its demonstration to others.

A good festival experience consists of meeting new people, listen to good music, be stimulated to try new things in areas like art, literature or food and make good memories (Riotta, 2015), while exists an overwhelming sense of comfort and power that comes from a large crowd sharing the same experience (Rudolph, 2016). With this, the overall experience must be designed to create an unique and memorable feeling in the attendee's mind (Morgan, 2009), and festival organizers cannot solely rely on a good line-up or a satisfying physical environment to keep their audience engaged (Slager, 2021). They are constantly required to improve the efficiency of their infrastructure and the overall experience of the visitors (Mortensen, Erdbrink, Rullkotter, Chusny, & Kortess).

For a better understanding of the festival experience, Woodstock Music and Arts Fair needs to be highlighted since it was a phenomenon that "created waves in world consciousness" and it was an empowering experience that people yearn to have in today's festivals (Reynolds, 2009). Its importance as a transforming event of people's mindset, its music and art that inspired other countries (Haider, 2019), along with the creation of a Woodstock-like dialogue about today's festivals – for the feeling of finding like-minded people and people with the shared musical taste –, this festival created a movement in pop culture. Its concept went from "underground" to "mainstream" (Garellick, 2019) and it is a very important case study if one intends to know and understand the festival's experience nowadays.

1.3 Woodstock: 3 days of peace and music that changed the world forever

Woodstock Music & Art Fair was a hippie festival that promoted “3 days of peace and music” and took place in Bethel, New York, in 1969 (Bennett, 2004). As Young and Lang’s (1979) observation suggests, to fully understand the socio-cultural significance of Woodstock, one needs to view it in the broader context of the late 1960s.

America had a society increasingly fragmented in what regards structural matters like civil rights, drug use and sexual liberation (Evans & Kingsbury, 2009). The general visual image of the youth, together with their lifestyle, leisure preferences and general outlook of young people over life grew to become more distinct from their parents’ culture (Bennett, 2004). However, it was the changing nature of music and fashion style during the 1960s that gave such statements a distinctive edge over what had happened in the years before (Bennett, *Cultures of Popular Music*, 2001)

Even though during the 1960s baby boomers were teenagers, they were already connecting into the political scene and being openly against the Vietnam War and in favour of the Civil Rights movement (Rudolph, 2016). The opposition to that conflict was a great unifier for the people who attended the festival (Evans & Kingsbury, 2009) and “the Woodstock Festival synergized a way of life which had been growing through the Sixties: anti-war, anti-establishment, pro-drugs, non-competitive and individualistic” (Young & Lang, 1979).

Evans and Kingsbury (2009) state that 3 times the 150,000 anticipated people attended the festival, and it is known for the relaxed attitude towards sex and drugs, the opposition to the Vietnam war and its music as a way for free personal expression. It was an opportunity for “free expression and the allure of an instant youth community (...), the place where young people proved that they could take care of each other and that working for the man was not necessarily the only way to have a meaningful life” (Gold, 2019). Characteristics like the fellowship between strangers, the lack of violence and the atmosphere of sharing are strongly highlighted by the attendees of the festival and a lot of sociological analyses have appeared over the years, focusing on different and particular aspects of the event (Evans & Kingsbury, 2009).

Woodstock inspired the creation of charity organizations, environmental associations, and Legal Aid (Gold, 2019), becoming the inspiration for European festivals like the Glastonbury Festival of Contemporary Performing Arts or Bardney Pop Festival,

both in the United Kingdom. Haider (2019) also suggests that “Woodstock’s hippie spirit (captured in numerous images, films and songs) summoned the sense that the music festival could be life-changing”.

1.4 The commercialization of music festivals

In the current days, festivals have turned into a business model, gathering thousands of bohemian-life lovers and festivalgoers to celebrate arts, music, and experiences (Steinman, 2020). Festivals are growing by size and by number of artists performing in them and they find themselves competing for the same bands or artists, trying to ensure a high level of good quality music to keep festivalgoers interested (Atkinson, 2016). With expensive prices, multiple stages, camping options and nearly endless lists of performers, festivals also face risks like the bad weather and the cancellation of major attractions that consequently affect the whole festival experience (Gajanan, 2019).

Music festivals make up for a large piece of the \$20B global live music industry (Shaikh, 2016) and grew into a major money-maker business. Is inserted in a competitive industry that sees hundreds of such events each year all over the world (Gajanan, 2019). They are not just more expensive to organise, they are also more expensive to attend (Saville, 2018), which results in promoters capitalizing every single aspect of the festival: ticket, camping, parking, food, water, alcohol, merchandise, late night music, VIP areas, among others (Mason, 2015). However, they are also places where discussions are held about the current problems of the world like environmental destruction, global warming, exploitation, and the attempt to reduce cultural diversity (Saville, 2018).

Deng (2018) asserts that brands play a major role in large music festivals. They contribute in a significant way to the whole experience that the organizers try to provide by bringing consumers enjoyment and entertainment. People attend festivals for the fashion, the photos, and the overall large music festival experience. By integrating a brand into the experience, one can also create value in the festivalgoers’ minds. The major brands like Spotify, Forever 21 and McDonald’s lead the charts of the music festivals top brands according to their category (see Attachment I), demonstrating how brand activations in these events bring strong revenue both in financial profit and brand recognition.

Brand presence in these events is important since it offers the possibility to communicate in different ways to the public since the participants in music festivals are more pre-disposed to absorb all the experiences and information about the brands (Ribeirinho, 2014). According to Eventbrite's report "The New Era of Concert & Music Festival Sponsorships", they concluded that 82% of consumers who attend four or more music festivals a year embrace company and brand activations. The areas that attendees engage the most are food and drink activations (70%), Wi-Fi access (61%) cell phone charging stations (46%), lounges or relaxation areas (45%) and photo booths (43%) (Steimer, 2019).

Nielsen's research "Music 360 report" concludes that 76% of festivalgoers and 51% of all consumers say they feel more favourable towards brands that sponsor a tour or a concert (see Attachment II). And in Portugal, for example, the 50 festivals monitored by MediaMonitor – from Markest – provided in 2019 a mediatic return of 137,7 million euros for the brands (Marcela, 2020). Also, the average return on the investment in music festivals, according to Global Media, is 20 times higher than the brand's initial investment (Jornal Económico: Revista de Imprensa, 2019). "Corporate sponsors play a huge role in the music festival ecosystem, with sponsorship dollars being the third largest revenue stream for festivals" (Shaikh, 2016).

2 The experience of a music festival as a hybrid event

The nature of events has changed forever (Chodor, 2020) and the way cultural goods are produced, distributed, and consumed is constantly evolving based on the fast evolution of technology. Which, as consequence, is changing consumers' preferences (Harbi, Grolleau, & Bekir, 2014). Jones and Bennett (2015) suggest that live concerts complement participation on online communities such as music blogs and social networks and like we explored in 1.2, the "I was at Woodstock" statement has been a status-enhancement for a long time and that phenomenon grew in magnitude alongside the rapid development of virtual social networks (Lingel & Naaman, 2012).

It is also important to state that music itself has changed as well, making festivals a bigger attraction for listeners (Charron, 2017). Due to the digitalization and streaming of music during the past decade and the fact that it is practically free, live music has become much more special (Gajanan, 2019). On the other hand, fueled by the development of immersive technologies such as spherical videos, Virtual Reality (VR) goggles and other web-based applications – that offer the users the possibility to attend live concerts online – virtual concerts are rapidly growing in popularity (Charron, 2017).

The past decade also saw the reintroduction of VR (Frew, 2017) through interactions and immersive content (Marchiori, Niforatos, & Preto, 2017). Immersion can be described as "the feeling of being inside a virtual event, enabling the user to escape from the real world in a manner that differs from viewing content on other media" (Rebelo, Noriega, Duarte, & Soares, 2012). Is the subjective feeling that one is participating in a comprehensive, realistic experience based on design strategies that combine sensory and symbolic factors (Dede, 2009). With this, a virtual environment is one that reflects reality and that allows the user to interact with others and be immersed in that same environment (Schultheis & Rizzo, 2001).

Immersion can also be measured in an objective manner (Herrera, Bailenson, Weisz, Ogle, & Zaki, 2018), regardless of the human experience that it provokes (Oh & Bailenson, 2017). Different variables such as tracking level, stereoscopic vision, image quality, sound quality, user perspective and resolution (Cummings & Bailenson, 2016) can be measured and this happens because immersion refers to the technological quality of the media of a particular VR apparatus in relation to its capacity to remove us from the physical reality, thus providing different levels of *presence* (Charron, 2017).

Charron (2017) also asserts that the economic potential of virtual concerts is almost infinite and that “technological innovations distort the frontier between live and mediated performances”. However, questions of whether mediated artistic performances can provide a similar experience is causing a lot of debate. Some argue that digitally mediated concerts do not offer “the possibilities for the unexpected, iterative and expansive experience” (Harper, 2015) and Lovatt (2021) defends that the “look, feel, content and, crucially, the attendee experience should be the same high standard for everyone, irrespective of how they have chosen to attend” (in-person or virtually).

On one hand, some argue that even if digital mediation maintains the time dimension – *now* –, it loses the space dimension – *here* – (Harper, 2015). And although a hybrid event is one that is available to persons who are actually in the venue and to online audiences (Lovatt, 2021), live performances retain some elements of uniqueness – like *being there* – that cannot be reproduced (Holt, 2010). Also, a lot of VR and livestreams platforms were developed by software engineers, which may mean that their vision as engineers might not be as creative and engagement-oriented like event planners or even creative producers (Lovatt, 2021).

On the other hand, while *presence* can be influenced by technological aspects (Peperkorn, Diemer, & Mühlberger, 2015), this concept is frequently associated with immersive technologies (Charron, 2017). Rosa et. al (2016) state that immersive virtual reality is thought to be advantageous because it leads to higher levels of *presence*, enhancing the effectiveness of a mediated experience (Cummings & Bailenson, 2016). Digital technologies and online engagement can democratize discussion, increase audiences (Conner, 2013) and present new performers by facilitating information and content, thereby reducing the financial risks of attending a physical concert (Burland & Pitts, 2010).

2.1 Digital and immersive technologies in music festivals

The internet offers easy opportunities to connect with others (Jones & Bennett, 2015) and the 2020 pandemic lead almost overnight to a shift in attitude in what regards live events (Roettgers, 2021). According to Slager (2021), technologies are increasingly being used in the festival landscape, and they play one of the most important roles in the festival experience. The organisers have discovered the possibilities of new technologies, which

can help to improve the overall festival experience (Mortensen, Erdbrink, Rullkotter, Chusny, & Kortés) and the development of onsite festival technology. From streaming technology like big video screens, art installations, huge LED arrays on festival stages (that allow artists to perform in front of full-color high-resolution video), livestreams, VR, chatbots and chats in livestreams, cashless systems and also social media, these tools and innovations aims to produce an immersive experience that the audience will remember and will come back in the next year to repeat it (Pitchfork, 2017).

1. Livestreams

There are multiple ways that audiences can use digital technology to participate in “live-performances”, from posting pictures and video footage on social media to the engagement in social media apps like Twitter (Jones & Bennett, 2015), and participating directly in livestreams. Livestreams can reach large and new audiences and, as consequence, generate millions in revenue (Hatch, 2020). Not only are they an optimal way of introducing an experience to new customers as it became the most successful integrated technology in the event industry (Kacicki, 2019).

Livestreaming can be especially adequate to a person who, for example, due to financial constraints or physical and cognitive limitations, prefers to stay at home and consume a show via a livestream while interacting with other people at the same time (Hatch, 2020). From the local gig to a global festival, live music is streamed, shared, uploaded, downloaded, reviewed, watched, and re-watched online. Thanks to digital technologies like livestreaming, the definition of live music has also expanded to include this way of transmitting a show that does not require that people are in the same place or even at the same time (Jones & Bennett, 2015).

The music industry has been exploring more the possibilities that livestreaming has and increasing their investments in this technology (Peisner, 2020). Festivals have been embracing this reality as well since it has been a way to show the audiences who, for some reason or another, cannot go to the venue something special and unique (Hämäläinen, 2021). Livestreams demonstrated to be a beneficial tool to increase the brand awareness of the event, expanding reach and visibility (Schumaker, 2018) and promoting interactions.

Vandenberg et al. (2021) assert that the “liveness” is crucial to the experience and there are much more comments shared in a livestream than on regular videos. “The closer the flow (of messages) is to real conversational exchange, the more possibility of a sense of collective entrainment” (Collins, 2014). This indicates that people think it is important to communicate that they are present in these online events (Skjuve & Brandtzaeg, 2019) and the comments’ section provide “the engagement needed to for creating social ties and feelings of community, as they enable participants to move beyond immediate interaction with acquaintances and communicate to the audience in general” (Vandenberg, Berghman, & Schaap, 2021). The following statistics demonstrate the influence that livestreaming had on major festivals:

- The 2019 edition of Coachella was streamed on YouTube, counting with **82 million live views**, which represents an increase of **90%** compared to 2018. YouTube has been Coachella’s exclusive livestream partner for 9 years and in 2019 even created a special curated selection called “Coachella Curated”. Which was a channel featuring performances, interviews, short documentaries, among others (Kilkenny, 2019).
- Regarding Tomorrowland, during the three-day weekend of July 22nd until the 24th of 2016, **175 million unique viewers** on Twitter, Facebook and Snapchat interacted with the event, generating **490 million** online touchpoints on these platforms. On Facebook, live shows were seen 14 million times and their page was visited by **140 million** unique users – see Attachment III (Bein, 2016).
- Music festivals are also in the streaming services of major TV channels. For example, Glastonbury in 2018 was livestreamed almost in its entirety via the BBC’s iPlayer Service, strengthened by their extensive TV coverage of the main stage and live coverage spots (Event Manager Blog, 2018).

In 2020, Bandsintown estimated that 60,905 livestreams took place between March 25 and December 12. Streams with 10,000 or fewer viewers accounted roughly 75% of the livestreams, while streams with 10,001-250,000 viewers accounted for 19,1% and major artist streams with 250,000 or more accounted for 3,9% (Chidekel, 2021), demonstrating how livestreaming is a tool that can be an extremely powerful for the music

festival brand since it gives the people the possibility to “experience the atmosphere of the festival without leaving their homes” (Haider, 2019). People enjoy livestreams and chats for a variety of reasons, which include immediate feedback loop, real-time dynamic experiences, and engagement with other people (Hatch, 2020). Also, according to a study conducted by Digitell, 30% of people that watch a livestreamed event buy a ticket for the physical event in the following year (Kacicki, 2019).

2. Virtual Reality

Rueda & Lara (2020) affirm that historically VR has been characterized as a “set of technologies that provide immersive experiences in computer-generated worlds, creating realistic illusions and sensorimotor contingencies that other technology-based mediums such as desktops or TVs cannot stimulate to the same degree.” VR is an experience generator (Bailenson, 2018) and provides the possibility of simulating events that may be experienced in physical reality (Rueda & Lara, 2020).

VR has key benefits like engagement, collaborative learning, and experiential learning (Dalgarno & Lee, 2010) and one of its characteristics is immersion. In this case, Sanchez-Vives and Slater (2005) state that immersion refers to the technical capability of a computer-generated system to deliver a surrounding and convincing environment with which the participant can interact.

The digital creation of virtual environments has opened many doors for the creation of virtual experiences (Dieck, Dieck, & Jung, 2021) and another subjective experience that VR can create is the sense of *embodiment*. *Embodiment* is “the sense of experiencing the body (or some parts) as “one’s own”, creating a bodily illusion usually referred as “body ownership” (Rueda & Lara, 2020). In addition, that illusion can be achieved by inhabiting other avatars, which are digital representations that participants of VR experiences can control with their actions (Won, Bailenson, & Lanier, 2015).

Good VR systems became much more affordable and is now possible to provide fully immersive and interactive environments at an accessible cost (Gnecco, Guimarães, & Zuffo, 2006), making it commercially available to consumers and companies. The events industry has started to adopt this transformational technology by implementing it into live events or using it as an alternative method for providing event experiences (Wreford,

Williams, & Ferdinand, 2019). The evolution of music consumption models along with recent technological advances currently offers audiences new ways to participate in live music, including virtually attending concerts (Charron, 2017). A VR concert is one where real-world users participate in an avatar form in a livestreamed concert performed by a real-world artist who is also in an avatar form within a videogame or other platforms (Chidekel, 2021)

Coachella and Tomorrowland also invest a lot in VR and Augmented Reality (AR). In 2017, Coachella launched an AR/VR app where the festivalgoer could access an AR experience that used the welcome box that they previously received as a tracking marker, transforming it into a miniature festival. It was also possible to access a VR mode where they had free tours designed to immerse the attendees before they actually attended the festival (Rogers, 2018). TomorrowWorld also offers a virtual experience that allows the audience to explore the festival from any place in the world (Slager, 2021). The potentials of VR are enormous because it can be used to simulate experiences that are part of our common reality (Slater & Sanchez-Vives, 2016), offering the trend of an ever immersive, engaging and multi-sensory VR experience (Dieck, Dieck, & Jung, 2021).

3. Chatbots and chats in livestreams

Chatbots are simple to use and the interaction in it does not require a very big cognitive load (Hatch, 2020). In addition to the Frequently Asked Questions' area in the festivals' websites, the promoters are investing in pre-programmed chatbots with answers to a variety of FAQs and, in some cases, Artificial Intelligence (AI) technology that can learn and adapt as the conversation flows, reducing the human intervention in the conversation. (Event Manager Blog, 2018)

On what concerns the chats in livestreams, Hatch (2020) affirms that it is a great tool for the audience to engage in the festival and be part of the discussion that is going on about it. Even with the big amount of people commenting and engaging in the chat, some platforms offer the possibility to have a chat host that moderates the conversation, eliminating offensive comments, for example, or even enact slow mode (which means slowing down the chat so that all comments can be seen). Also, if the user does not want to engage, he can close the chat and see all the conversation later since it is transcribed and saved in the platforms data collection. Livestream chats, when built and moderated

correctly, can totally fortify the connections between the people who are participating in it, bringing fans and like-minded people together to share the same experience.

4. Cashless systems

Mortensen et. al affirms that there have been several promising developments particularly in the field of cashless payments within the past 10 years. Mobile ticketing and cashless festival experiences have been implemented using both Radio Frequency Identification (RFID) tags and integrated wristbands (Hudson & Hudson, 2013). Wristbands with RFID allows the entrance in a festival in an easier and quicker way, also allowing to pay for goods and services with it inside of the venue (Remling, 2012). These technologies improved the access to events and festivals and helped the promoters reduce frauds and waiting times at the gates, ensuring a seamless visitor experience (Hudson & Hudson, 2013).

Linked to credit cards or loaded with funds on-site, the wristbands allow festival attendees to pay for food, drinks, and merchandise (Winkle & Bueddefeld, 2020). First, they were used to manage the entrance at festivals and events but eventually evolved to incorporate secure vital payments and connect with various social media channels to share the visitors experience (Hudson & Hudson, 2013). It has advantages like reducing waiting-times, reduce lost or stolen credit cards and the general need for cash on-site (Winkle & Bueddefeld, 2020). Not only do they avoid queues and paying problems, but they also collect useful data about the attendees' habits in a festival. Patchen (2015) also states the union of RFID technology with virtual payment capabilities increased overall revenues of festivals and enhanced the attendees' experience quality.

Some examples of the appliance of this technology are Tomorrowland, who adopted this system by sending a wristband to its visitors at home and serves as a ticket to enter the festival, allowing the festivalgoers to pay for their consumptions (Tomorrowland, 2021). Lollapalooza's "Lolla" cashless RFID accounted for approximately 1/3 of the total revenue of the festival and is responsible for a 20% increase in attendees' spending's (Patchen, 2015). Also, RFID Journal showed that the vendors at Low Festival who took cashless payments reported a 20% increase in sales (Dov, 2020), thus demonstrating high capability of improving the festival experience, while making the festivalgoers feel safer with their money. To complement this, in a study conducted by Slager (2021), the

participants of the study demonstrated that festivalgoers find more motivating going to a festival with an electronic paying system than going to a festival that does not have one.

5. Social Media

According to Kaplan & Hainlein (2010), “social media is a group of Internet-based applications (...) that allow the creation and exchange of user-generated content.” User-generated content (UGC) can be seen as the sum of all the ways in which people make use of social media, being more genuine and organic. Lopis-Amorós et al. (2019) demonstrated that those characteristics make it much more valuable and valued by the consumers and that the UGC has a stronger positive impact on brand equity creation than the content produced by festival organizers.

The growth of social media platforms has been one of the keys in enabling music fans to experience festivals through live tweets, Snapchat, Facebook, and Instagram posts (Raso, 2016). Consumers make use of blogging websites, YouTube, and social media apps such as Instagram as an effective tool to share their experience (Nittel, 2020) and to show their friends and followers the experience that they are living. Plus, Jones and Bennett (2015) defend that sharing attendance to live performances via social networks can help people define their identity by indicating a higher level of authenticity. In addition to this, companies in the last decade also embraced social media because of its potential for engagement and collaboration with their consumers (Hudson, Roth, Madden, & Hudson, 2015), being one of the most effective tools nowadays to create awareness of the products and the brands amongst them.

Festivals like Tomorrowland, Coachella and Lollapalooza learned how to manage their social media efforts to get closer and closer to their consumers. Their statistics show that: Coachella, for example, shares stories of their events of the day, creates highlights offering recaps of everything festivalgoers love, transmit the message and imagery that it is a perfect mix of artistic expression, celebrities, and regular people at the same time and absolutely everything is tagged with targeted mentions (Baglietto, 2019). For more detailed statistics, check Attachment IV. And as a result, this type of content and actions by the brand were able to make it one of the most discussed music festivals in the world, with a total of 41.8 million posts from 2010 to 2017 (Raso, 2016)

2.1.1 Digital music festivals

2.1.1.1 Lost Horizon: the virtual reality experience

Held annually at Worthy Farm near the village of Pilton, the Glastonbury Festival of Contemporary Performing Arts has grown from a small festival in England into one of the largest greenfield music and performing arts festivals in the world (McKay, 2000). The festival aims to encourage and stimulate youth culture from around the world in all its forms (Glastonbury Festival, 2021), combining popular festival culture with more traditional fairs and harvest festival celebrations (Flinn & Frew, 2014). With 79 stages in 2018, an area of almost 900 acres in the Vale of Avalon and an expectation of 2800 performances during the festival for the 2020 edition, the 135.000 tickets to the public sold out in 34 minutes in the same year (Green, 2019).

The festival thrives and captivates the public through an unified series of images and sounds that strengthen the idea of a liberating “unforgettable experience” where “the rules of society are a bit different, a bit freer” (Glastonbury Festival, 2009), being also characterized as a sophisticated event with a strong and central role in the development of the region and within the spectrums of expansion of the festival economy (Flinn & Frew, 2014).

Within the areas that Glastonbury has, Shangri La is one of them and is known for being a creative playground that inspires generations, with art and music proliferating by “amplifying the collective conscience”. Functioning as an outdoor gallery and “an interdisciplinary space aiming to inspire, educate and connect”, it also intends to inspire a critical thought by promoting dialogue about a lot of different subjects that affect the world today (Glastonbury Festival, 2021).

With the pandemic cancelling all the festivals in 2020 and the massification of livestreams and online gigs, the team behind Shangri La embraced the digital era and created “a real festival, in a virtual world” (Long, 2020). “Lost Horizon is a deep multi-layered experience, filled with wild dance-floors, secret headliners, a visual feast of art and performance, hidden venues and some huge artists playing exclusively for you” (Lost Horizon, 2021). The members of the crowd are all avatars with characteristics that can be chosen or changed at anytime the festivalgoer wants and have little or even no resemblance to his/her/their true self (Davies, 2021). After meeting Sansar, a VR company based in San Francisco, the concept of creating Shangri La in a virtual world

started to be real and Lost Horizon – the first festival completely made in VR in the world – was created.

The virtual Shangri La was showcased across four virtual stages: a nightclub called Nomad for garage and drum & bass, the Freedom Stage for bands, the eight-sided Gas Tower for big-room house and techno, and S.H.I.T.V, a satirical media centre showing films and livestreaming artists in their kitchens – plus a landing zone and an art gallery (Long, 2020). Figure 2 shows a set of the virtual world of Lost Horizon, being visible the similarities with reality and with the physical venue of Shangri La. The result of this was 10,000 people watching through VR headsets and more than 4 million tuned in as Beatport streamed the event on YouTube (Davies, 2021).

In terms of numbers, this free virtual festival received more than 4.36 million people from 1100 cities in 100 countries during the 2 days of the event and more than 70 DJs performed as “real persons” in green screen holograms that recreated the famous area of Glastonbury. With 9 camera angles, the ones who attended the event in Sansar app could visit all the areas of the virtual world and could donate money to the charity causes that are associated with the festival (IQ Live Music Intelligence, 2020).



Figure 2: Set of Lost Horizon. Credit: Sansar

2.1.1.2 Tomorrowland Around The World

Throughout this framework the festival Tomorrowland was mentioned a lot of times for its innovations in the wristbands, cashless systems, livestreams, among other things. And that happened because Tomorrowland is an avant-garde music festival and one of the world's most loved and cherished brands in the festival's industry (Nikjou, 2019).

Founded by two brothers in 2005, Manu and Michiel Beers, Tomorrowland is an Electronic Dance Music Festival (Nikjou, 2019) located in Boom (a city between Brussels and Antwerp, Belgium). From 500-1000 festival goers in 2005 to 50,000 in 2008 and 400,000 in 2019 (Pajaro, 2018) the festival usually hosts over 1000 artists, 18 stages and 38 hectares of area, being the only festival so far that had 2 million people registered for tickets from every single country in the world, including North Korea, Syria and Afghanistan (Nikjou, 2019), and selling out tickets in 64 minutes (Pajaro, 2018). Also known for their diverse lineups, it gives the fans the opportunity to know artists and sub-genres of dance music that could be unknown to them (Beckett, 2019).

In 2020, a lot of music festivals have broadcasted livestreams (Slager, 2021) and Tomorrowland also embraced VR to create an experience similar to the in-person event (Kocay, 2020). Tomorrowland Around the World (TAW) is a digital festival where visitors can navigate through Pāpiliōnem (the virtual island) with a PC, laptop, smartphone, or tablet (Tomorrowland, 2021). With the help of Dogstudio, TAW hosted in 2 days more than 1 million people and 60 artists (Dogstudio, 2021). The production of the event was made in 9 weeks and Tryon (2020) states that it took 4 large green screen studios around the world, 6 4K cameras used, as well as several virtual cameras - meaning up to 38 angles could be used at the mainstage. There were 280,000 virtual people in the crowds, each having their own attributes like flags and lights. To render the entire virtual world, it took ten different render farms working 24/7, which ended up with around 300TBs of raw footage. It is possible to see in Figure 3 a glimpse of the digital world that TAW created and is possible to see the resemblances with reality, the quality of the graphics and the meticulous details.

It is important to state that the virtual event was paid, with tickets costing an average of 25€ for the 2 days and although the level of production at the in-person festival

is brutal (Nikjou, 2019), TAW managed to keep this level of quality, making it a next level experience in its digital form for their attendees and devoted fans (Tryon, 2020). This granted them the FWA of the Month (the largest online award program in digital design and development) and the recognition for pushing boundaries of what online experiences can look like (Tomorrowland Around The World, 2021).

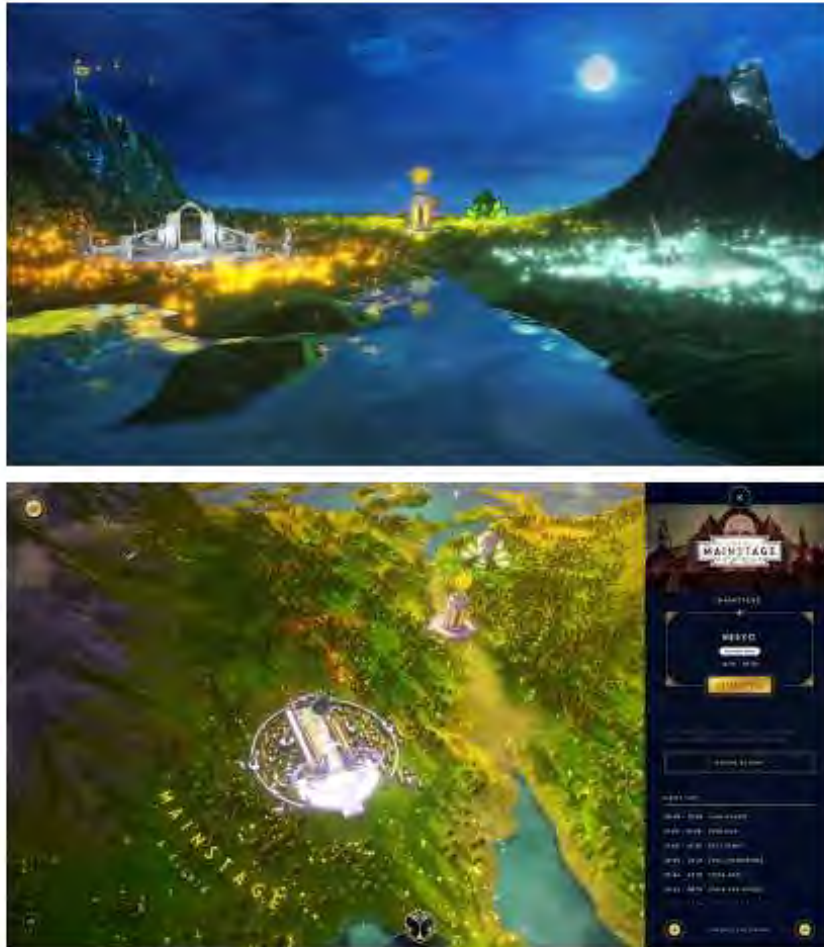


Figure 3: Tomorrowland Around the World 2020. Photo credit: Dogstudio

3 Methodology and data collection

Like mentioned in the Introduction of this investigation, the methodology used for this research is the qualitative method and was executed through semi-structured interviews. The interviewees were contacted due to being professionals of the industry of music festivals, thereby was considered their contribution to be essential to this investigation.

To contextualize, Queima das Fitas (QF) of Porto is the biggest academic celebration of Portugal. Organized by the Academic Federation of Porto (FAP), this event happens in the second week of May of every year and lasts for 7 days straight. With national and international artists performing every night, during the day cultural and academic activities are also held and the students gather to celebrate the end of the academic year. In 2021 – the second year with all the events cancelled due to the covid-19 pandemic – FAP livestreamed in their social media channels a concert almost every day of the week that QF was supposed to happen. The concerts were livestreamed during the night and the main cultural activities that happen in QF were also highlighted with a livestream or a video to remind the students of the Academy the spirit that characterizes this week. João Fonseca is the General-Secretary of the Board of FAP and after a contact made through mutual colleagues, an interview was scheduled and held in Zoom, having a duration of 57 minutes, and being conducted in Portuguese.

Robin Collings is the Founder and Producer of Shangri La in Glastonbury Festival of Contemporary Performing Arts and Founder and Commercial Director of Lost Horizon. After doing research about Lost Horizon, his name and contact were found through articles that were read online and the decision to contact him was made. Robin kindly accepted the request, and the interview was also held in Zoom, lasting for 1 hour and 17 minutes and being conducted in English.

The 3rd person interviewed for this research will be referred to as Anonymous since it is a person whose identity and professional occupation cannot be revealed due to company policy. The person has been working directly with artists for 15 years, is currently working for a festival that held a digital event and will be mentioned in this research as Festival X due to company policy as well. After kindly accepting the contact on LinkedIn, the same procedure as the previous interviewee was made. The interview was held in Zoom, had a duration of 44 minutes, and was conducted in English.

Maria Sara Costa is the social media and content manager of Rock in Rio. Rock in Rio is one of the biggest and most famous festivals not only in Portugal, but especially in Brazil, having in its history 20 editions since 1985, 2301 artists and 76 million people reached on social media. The festival did not hold a digital/virtual festival, and this is way Maria was contacted. For the expertise of the interviewees to be balanced, it was important to contact a person who was not in the organization of a virtual festival so that the results could be more broad, real, and not biased. A contact with Maria was made and she also kindly accepted the request to do the interview. Due to Maria's schedule, an interview by Zoom or other platform could not be done, so the questions were sent by a document on email and answered in the same way a few days later.

Table 1 details more information about the interviewees, the contacts made and respective dates and information about the way that the interviews were held.

Interviews			
Name	Professional occupation	Date of 1st contact	Date of interview & platform
João Fonseca	General-Secretary of the Board of the Academic Federation of Porto	September 1 st	September 3 rd ; Zoom
Robin Collings	Founder/Producer of Shangri La in Glastonbury Festival of Contemporary Performing Arts, & Founder/Commercial Director of Lost Horizon	September 2 nd	September 8 th ; Zoom
Anonymous	Anonymous	September 2 nd	September 13 th ; Zoom
Maria Sara Costa	Social Media & Content Manager in Rock in Rio	September 10 th	September 22 nd ; Written interview.

Table 1: Interviews

To achieve the goals previously established, the questions in the interview were made accordingly. In the beginning of the interview a presentation about the interviewer was made, contextualizing basic contact information, current professional occupation and providing the proper information about the theme of this research and the goals that it has. After that, some questions were asked to understand the current technological state

of the festivals in which the interviewees work on/for to contextualize and adequate the next questions according to the answers given. Having in consideration each case in specific, the same general questions were made to all the interviewees. However, it was considered important to let the interview flow as a conversation – semi-structured interview – and not be a closed or scripted interview. In the end, acknowledgments were made, and the interview was concluded. Table 2 shows the general questions that were made having in consideration the goals established.

Questions made in the interviews	
Question	Goals
“How do you think the implementation of technology might affect the overall experience of a music festival?”	Understand how the implementation of technologies and the adaptation to hybrid models can affect and improve the overall experience.
“How was it in terms of reaction (the virtual festival)?”	
“Do you think that if it was paid it would have the same participation?”	
“Do you think that these technologies in the in-person festivals can actually improve them? The experience that the attendees have and the festival itself as a brand?”	In what areas and in what ways the implementation of technologies and the adaptation to hybrid models can improve the experience.
“How do you think the implementation of technology might affect/impact the in-person festival experience?”	
“How do you think technology might affect/impact (positively or negatively) the virtual festival experience?”	

<p>“What benefits/advantages can a hybrid model bring to both audiences (in-person and virtual)?</p>	<p>Acknowledge the advantages of a hybrid model and digital and/or virtual experiences.</p>
<p>“What do you consider being the biggest challenges for festival promoters in adapting face-to-face festivals to a hybrid model?</p>	<p>Acknowledge the challenges of a hybrid model and digital and/or virtual experiences.</p>
<p>“Do you think virtual festivals give the same experience to the audience as physical ones?”</p>	<p>Understanding if digital or virtual music events provide the same experience as the physical ones.</p>

Table 2: Questions to the interviewees

After having all the interviews done, the respective transcript was made manually and, in the case of the interview with João Fonseca, the respective translation to English. They were encoded in the Taguette’s platform, creating highlights about keywords and topics considered important and from that, the results analysis started to be made.

RESULTS ANALYSIS AND DISCUSSION

4 Results analysis

By analysing the content covered in the interviews and for a better understanding and exploration of the results, makes sense to categorize the different areas that technology has an impact on. With this said, the results analysis will be divided in 3 major categories:

1. Comfort, security, and monitoring.
2. Digital and virtual experiences.
3. The overall experience.

Comfort, security, and monitoring includes the aspects that the interviewees consider affecting positively and negatively in the implementation of technology in music festivals. It concerns the venue itself and how technology influences questions like the transportation of the people to the festival and its surroundings, digital tickets, and security of the attendees on site. It also approaches how technology influences marketing aspects since the moment that the attendees get to know the festival until the moment that they leave it. The sub-chapter is concluded with the mention of the challenges in what regards accessibility and connection.

Digital and virtual experiences focus on music festivals that happen in a digital mean and/or through VR. It includes livestreams – like the case of QF – and all festivals that require some technology (platform, app, equipment, among others). Firstly, the advantages pointed out by the interviewees are divided in 3 main categories and analysed accordingly. Then, the challenges come next and are also divided in 3 main categories.

Finally, the overall experience makes an overview of how technology affects and influences the experience that the attendees have, exploring the perspectives of the interviewees regarding the viability of the hybrid models and paid digital experiences by focusing more on the attendees' experience and their relationship with technological tools. The question of how a digital and/or virtual model on its own or combined with a physical model is the most prominent and the perspectives of the interviewees are shared to better understand the research problem. It concludes with 3 tables that summarize all the contents analysed and the discussion of these results is made in the next chapter.

However, before analysing deeply the 3 categories mentioned before, it is important to contextualize the scenario of music festivals nowadays according to the interviewees.

João Fonseca states that the rising of technologies throughout the years – and especially the covid-19 pandemic – opened doors for online events and potentialized another type of market. Despite of this, although he believes that the “in-person market” will remain in the next years, Robin Collings points out that since virtual events open the experience to the attendee, the digital market can get even bigger, agreeing also that it might create disparities between the big music festivals and the medium/small music festivals. One reason for this, according to João Fonseca, is that the smaller festivals can never compete financially with a festival that has much bigger dimensions, which is supported by Maria Sara Costa, that indicates the financial constraints as the biggest hindrance to the production of virtual events.

The 4 interviewees identify and recognize the growth of technologies both in the venue itself and in digital channels, pointing out advantages, challenges and difficulties felt in considering or organizing a digital experience.

4.1 Comfort, security and monitoring

When asked how the implementation of technology may affect positively or negatively the experience of a music festival, João Fonseca defends that technology has positive impacts on various subjects. Starting with comfort, technology can be a useful tool in matters like transportation and the attendees being able to see the agglomeration of people inside of the venue in real time. For example, if the festival provides buses for the attendees to go to the venue or move from one point to another, technology can provide comfort since they might be able to see in real time if there are too many people on the bus and choose the way of transportation that they prefer the most. Some people simply do not like being in the middle of the crowd and prefer to have a more relaxed experience. This technology can also be applied to music tents, queues for food vans, merchandising stores, among others. Through an app, for instance, the attendees can see the agglomeration of people in every part of the venue and make a better management of their time and experience having this in consideration.

In what regards digital tickets, João Fonseca states that QF has been working towards digitalization and the maximum reduction of physical tickets as they were used to be known. This is also happening in Rock in Rio, where Maria Sara Costa states that in 2018 they did not have the opportunity to introduce digital payments or digital tickets.

However, some of the platforms that allow this digitalization are now more evolved and are being tested to ensure their successful use in the 2022 edition.

Regarding security, João Fonseca points out the advantages of technology as a useful tool through security cameras. The festival organizers can also use the platforms mentioned in the previous paragraph to track where people are more agglomerated and act according to their behaviour and patterns. He also mentions that having in consideration the covid-19 pandemic and the consequent vaccination of the population, the validation of the vaccine certificates can bring added value to the festival since the organization can know if the people are vaccinated or not. Added to this, they can know with whom the attendees were inside of the venue, where they walked, bought food, among other aspects, and prevent another wave of the virus, thereby ensuring a safe and healthy environment.

João Fonseca also states that technology is very useful for marketing purposes. The organizers are able to monitor the attendees' behaviour, patterns and choices since they first engage with the festival, to the moment that they buy the tickets, how they buy them, when they are deciding the best way to go the venue until the moment that they are inside and are exploring the festival. With the proper monitoring and tracking of the attendees' behaviour, the organizers can improve the venue itself, re-locating the vans, stages and other important structural and design aspects if needed. They can see what way of payment is preferred by the festivalgoers and improve their options so that the experience gets facilitated. He believes that having a deeper knowledge of the public's behaviour allows a better communication strategy because the organizers know what the public looks for, where they look for it, where they go, with who they share the experience, among other aspects. And this monitoring can be very powerful to better promote the festival and make the information get to the public in the right place and at the right time.

Although these are advantages to both promoters and attendees, João Fonseca calls attention to the challenge that is the internet access and connection. For these technologies to work correctly – for both attendees and organizers – a good connection to the internet is necessary inside of the venue, as well as a high network capacity. This can be a challenge because not everybody may be able to use these technologies or have a good experience if they do not have good and fast access to the internet in the first place. Which can turn the supposed-to-be good experience into a stressful time where they cannot

access the internet. At large festivals, any change, as minimal as it may appear, involves resources, huge logistics and investment and that needs to be taken into consideration when implementing technology.

4.2 Virtual and digital experiences

When asked about virtual music festivals in general, all the interviewed showed a positive and motivated perspective towards this growing reality. João Fonseca is an apologist that innovation is a good thing and that we should give the benefit of the doubt and support this kind of change. The interviewees were also asked about advantages and challenges of virtual music festivals and on what concerns the advantages, they can be divided in 3 major categories: reach, physical constraints and feeling of belonging.

4.2.1 Advantages

4.2.1.1 Reach

Reach is the most mentioned advantage by all the interviewees. By organizing Lost Horizon, Robin Collings and the rest of the team realized that this type of events have a different level and that things can actually be done with them. He mentions that they could reach everybody who had an internet connection in the whole planet, which opened their eyes and captured their imaginations since that was the first festival using only VR. Anonymous also pointed out that through Festival X they broadened their audience and reached out people who cannot go the physical festival due to financial impossibilities, connection them with their brand.

João Fonseca states that reaching this amount of people also has benefits in showcasing to the attendees the various parts that the festival has that some people do not know about. In the case of QF, although they did not use VR, they showed the people who watched the livestreams and/or the documentary that was launched all the activities that QF has and that turned out to be a good opportunity not only for the organization but also for the attendees, that got to know everything about the event. Maria Sara Costa also strengthened that a hybrid model can be beneficial because it can indeed reach more people with no geographical barriers. Moreover, Anonymous points out that the main

problem in music festivals is the weather and in a virtual one that is not a problem since the people can “check it back” on another time or have it on-demand. This represents an opportunity for the attendees and a smaller risk for the organizers since they can reach more people with less constraints.

In what regards only the promoters, Maria Sara Costa says that it can bring the advantage of adding outreach numbers to the in-person festival numbers. If people enjoy the virtual festival, João Fonseca states that the chances of them buying tickets for the next physical edition are very high, agreeing that it is extremely positive for the festival itself. With a hybrid model, he defends that it was possible to reach everybody and especially the ones who are really interested in the event and could not attend it. This can also be applied to other festivals. Festival X for example, is quite expensive and for an affordable amount of money, the attendees could feel what the festival is about.

The reach that this technology has can bring advantages in terms of partner negotiations, allowing brand presence to be doubled (physically and virtually), according to Maria Sara Costa. On the other hand, João Fonseca points out difficulties in this subject since the partners of QF privilege contact with people and when a festival goes online this physical contact does not happen, which made the brands/partners do not have a lot of interest in having visibility. Since in 2020 took place so many livestreams and online events, the fact that QF was not the first online event made it more difficult to arouse curiosity around the event and create an offer that was good enough for the brands to be interested in.

The fact that this technology allows the promoters to reach everybody with an internet connection has the advantage of increasing the interactions that happen on the platforms and/or on social media. João Fonseca enhances the moment of synergy that happened in the comments’ section of the livestreams that they held and also the sharing of pictures on Instagram, achieving the communication goal that they had. It has the power to increase online reach of the music festival, attracting more people to visit their social media channels and interact with the promoters or other attendees, thereby growing their brand recognition.

4.2.1.2 Reduction of physical constraints

In terms of physical constraints and still related to the reach of this type of festival, Anonymous mentions that since the attendees do not need to buy flight tickets for the festival, it is easier to reach everybody in the world. Also has the opinion that it is ecological more efficient because people do not need to travel. They are not limited to timings since they can tune in from their home whenever they want. Maria Sara Costa's point of view meets Anonymous' because she mentions that when we go to a physical festival it is necessary to buy a ticket, plan the travel, possibly an accommodation as well, among other things. With a virtual festival these factors are not involved and we can be comfortable in our sofa.

Robin Collings enhances the fact that gravity does not matter in a virtual festival, and everything can be built in a virtual world. In the real world, it would not be possible to build a skyscraper or hang something in the mid-air without cranes and that requires a lot of investment. He suggests that is all about finding the balance, curating, and designing the festival in a way that it does both things: one that allows people to think that that is completely mind-blowing, different, and also give them the feeling that they went to that party or festival that they go every year. The producer of Lost Horizon also says that organizing a virtual festival has the advantage of being more accessible for people with physical disabilities. These people also want to enjoy the music and sometimes they do not have access to good spaces in the in-person festival to enjoy it. A virtual festival allows them to have their own experience without the physical constraints of a music festival in the real world. This can also be applied to people who have social anxiety or body dysmorphia that do not allow them to go in those social spaces. They can build an avatar, change how they look every 5 minutes and break all of their personal boundaries.

Robin Collings, Anonymous and João Fonseca agree that a virtual music festival allows the artists to record their sets in every part of the world, which breaks a lot of barriers in terms of geography and inconveniences that might happen (flights cancelled, for example). Robin Collings mentioned that to make Lost Horizon happen – and having in consideration the ongoing pandemic – they sent hundreds of green screens to the most various locations around the world and some artists even recorded the set with their iPhones. Anonymous also points out that there are American bands, for example, who were playing in the United States but could not leave the country due to the pandemic and VR allowed the attendees to still have the experience. This is strengthened by João

Fonseca, that suggests that the promoters can put a hologram of the artist that is in another country in the stage of the in-person festival and that that could be interesting for the attendee. He also mentions the component of cost, affirming that it would decrease with this technology due to all the arrangements necessary for the artist to be there in person.

In terms of personal experience of the attendees, Robin Collings indicates that in Lost Horizon people could have their microphones turned on or off, as well as the speakers, which allows the festivalgoers to wander around and talk to people freely without the noise and sometimes tightness of the crowd. Also, one thing that is important to have in consideration, like Anonymous mentioned, is the weather. If the weather is not appropriate, it can ruin the experience for the attendees since a music festival is characteristic for the social and personal interactions (like QF). The experience of the festival can be negatively affected, which does not happen in a virtual environment.

4.2.1.3 Feeling of belonging

All the interviewees agree that a virtual festival can provide a sense of connectivity and a feeling of belonging. Maria Sara Costa enhances that – especially during the pandemic – virtual festivals created the feeling of “I was there” in the attendees, making them feel special. João Fonseca strengthened this idea by affirming that the nature of human beings is to like to feel special and unique, that something is made exclusively for them. With this, he believes that personalizing an event for each person may be possible. If the feeling of belonging mentioned above is indeed created, it will add value to the festival and create differentiation, since a virtual presence has the exclusivity of making everyone feel that they are being part of the event, according to Maria Sara Costa.

Robin Collings intensifies this idea by saying that these types of events can break the boundaries of geography, politics, and culture. Some cultures have a pre-conceived idea about each other and some of them are not even allowed to be together although they really do not why. In a virtual event organized by the Producer he states that people with different political and cultural backgrounds came together, listened to the same music, and learned that the people they are taught to hate are actually just normal human beings who grew up listening to the same type of music and with very similar interests. Like it was said in the previous paragraph, all interviewees agree and believe in the power of this technology to make people feel special and part of something. Which they consider being

extremely positive for the promoters and the attendees if they can provide a customized experience that, like Robin Collings suggested, allows people to think that it is completely staggering and gives them the feeling that they usually feel in the in-person experiences.

4.2.2 Challenges

When asked about the disadvantages and challenges of a virtual festival, having in consideration the answers of the interviewees, it makes sense to also divide in 3 major categories: cost and investment, accessibility, and differentiation.

4.2.2.1 Cost and investment

The cost that a virtual festival has and the investment that it requires is the biggest challenge that the interviewees pointed out. Maria Sara Costa states that the financial cost is the biggest hindrance, not only in terms of the production but also in terms of the musical rights of the artists. João Fonseca also mentioned the same problem by saying that QF could not keep the livestreams on their digital channels due to copyright of the songs played during the livestream, which can be applied to a virtual festival too. A challenge is found here since the cost of the copyright of the artists needs to be taken into consideration when creating a digital experience.

Maria Sara Costa also explains that communication-wise, it is necessary a big investment, affirming that one of the biggest challenges is the reach rates of the festival in case a good communication is not made. In order for the people to know what the festival is about, a big effort needs to be made to make the information get to the right people. Robin Collings pointed out a difficulty that they found while organizing Lost Horizon, which was people not knowing exactly what they were being asked to spend money for. Although he affirms that Lost Horizon was having a huge reach on social media, for the people who have never experienced something like this can get confusing since they do not know exactly what they are buying. Therefore, it is harder to make people commit financially to a digital experience, according to Anonymous. This is also why Maria Sara Costa believes that the communication efforts to reach impactful results may be too demanding to cohabit with a physical festival.

Besides the communication efforts and the financial requirements that they have, Robin Collings identifies another challenge, which is the audience. He explains that in

the Sansar platform that they used, it is necessary a good gaming computer, good graphics, a good processor, excellent internet connection and ideally a VR set. So, he says that in experiences like these, organizers usually can only get people who are committed to gaming or have enough money to buy the VR sets. He identifies this as a big challenge because it isolates a huge amount of the audience and he believes that the people's amount of money should not influence their opportunity to enjoy these experiences, also stating that they do not want to build an environment where only rich and privileged people can access. Thus, the organizers cannot be expecting the audience to spend a big amount of money just to attend an event.

In terms of technology, Maria Sara Costa mentions that the most challenging part is the investment needed for the virtual experience to be as overwhelming as the physical one. Otherwise, if the outcome is not satisfactory, she believes that the hybrid model can be detrimental to the notoriety of the festival. With this said, Anonymous also talks about the same problem by mentioning that this technology is pretty cost-driven and the promoters need to think carefully if it is possible to organize this and if it is a risk that they are willing to take. He also says that the promoters might be limited to travels since some sets had to be recorded in a studio and that was not possible for everybody. This made them not being able to reach everyone because they did not have a studio in all locations necessary, mentioning as well that it is very time consuming and expensive. Cost-wise, this also meets what Robin Collings mentioned when pointed out that they had a lot of green screens flying around the world.

Regarding partners, Robin Collings indicates that very few festivals have the money to invest in something like this and that it is important to include the brands in the process of creating a virtual festival. He also thinks that the tech sector will need to invest in the music and culture sector due to organizers not having a lot of money because of the covid-19 pandemic. He wants to motivate the brands in investing in this sector, believing that a presence in a digital experience enhances their brand representation and the experience of a festival, also expanding its audience. However, Anonymous adverts for the fact that it is required to think carefully which deals are made with different companies and if they will work together. Consequently, this might be a challenge since Robin Collings states that until the promoters can prove that this model can survive, they will have to try to find other ways to attract the attendees.

4.2.2.2 Accessibility

Besides requiring a lot of investment, the interviewees also agree that when organizers are considering a virtual festival, it is necessary to have in consideration if all the people will have access to it, meeting with what Robin Collings mentioned about not everybody having access to VR or technological equipment. Anonymous indicates that not everybody has access to VR so it can narrow the audience, suggesting also that the promoters need to have good knowledge of what the audience is and customize the experience with the different technology that is available. He also says that due to the existence of so many possibilities, it can actually limit the chances to reach out the audience.

In Rock in Rio, Maria Sara Costa states that the organization of the festival will always try to make sure that platforms generically used by digital users are already the vehicle for communication to the virtual and digital experiences. Thereby enhancing the importance supported by all the interviewees of choosing wisely the used platforms. Anonymous also adverts for the fact that when people already have the equipment, it is necessary to take in consideration that it might not work for every software. Data privacy and security is something that needs to be taken in consideration as well since the promoters must guarantee that the information of the attendees is well taken care of, safe and does not fall in the wrong hands.

4.2.2.3 Create differentiation

João Fonseca states that nowadays it is complicated to create differentiation because people already consume so much content that all the information might be too confusing for them. Although he believes that the online QF managed to create a unique feeling for those who never experienced it, it could never be compared to what the event is in person. With this said, he suggests that the organizers can create a very big differentiation from what already exists online by having exclusive content that can be significantly important to create proximity with the festival.

According to Maria Sara Costa, virtual festivals gain relevance by the context in which they occur. Timing is also a very important aspect according to the interviewees. Robin Collings remembers that at the time that Lost Horizon happened, people were all

in the same boat with the covid-19 pandemic so it was easier to reach the audience and Anonymous suggests in the winter, for instance, a virtual festival can take place (especially having in consideration the weather conditions). However, João Fonseca indicates some difficulties in creating a digital experience because they were not the first ones creating something like what they did and if they were pioneers on that, it could have aroused more curiosity. Therefore, the brands and the attendees would have more interest in participating.

Robin Collings points out the challenge of how to make it close enough to the real-world experience that people feel drawn to it, respect it culturally and treat it as a real cultural thing. Nonetheless, not being held back by the physical constraints mentioned before, like gravity. With this, he states that they must create an energy in a synthetic way that makes everybody feel like they are really living that. He also enhances the importance of the artists in this process by saying that the promoters need to get somebody who is completely dedicated to expressing their inner self as an artist because the emotional risk attached to the music and to the visual and digital art is too big.

Another risk that he adverts for is that a lot of musical performers and artists have an adult approach towards their art that might not be appropriate to children or teenagers. The artists are doing all the exploration of their work and taking the risks attached to that, but they are adults. The gaming audiences are uncontrollably age-wisely, and the organizers cannot put the same imagery in an environment where a child or a teenager would access. However, the true work of artists should not be contained. With this, it is difficult to find a balance since they do not want to make it too cosy and comfortable but also do not want to hold back artists.

Robin Collings indicates another challenge which is the commitment of the audience. This meets the statement of João Fonseca when he affirms that the festivals that he knows that are most successful are the ones that make the people feel like they are part of it. There is already a great continuity of the regular attendees, and they feel like the festival is a little bit theirs. Robin Collings mentions that when going to a physical festival – in case of Glastonbury – the audience is really committed. They have a plan, booked time off work, thought about their outfit and by the time that they pass through the main gates, they are totally committed. He also explains that they are completely part of the show, they share their best and worst experiences with the people that they are with and that creates and perpetuates a feeling of ownership for the audience. Especially those who

go to every edition. To transport that into a digital experience where people do not leave their houses is a big challenge and that is why the promoters need to carefully analyse their audience and create a factor that differentiates them. With real art and new technologies, they must make the audience really care about it, emotionally commit to it so that the experience itself gets perpetuated. In the end, he states that is all about making the offer good enough and try to make it as authentic as possible.

4.3 The overall hybrid experiences

When asked about the overall experience and the reaction of the public to a hybrid event, the interviewees pointed out important facts. Anonymous considers that it is generation based, which is supported by Robin Collings when explaining that young audiences do not have the nostalgic feeling about music or music festivals that older audiences have. This is important to mention since the people who lived through 1980s, 1990s or even 2000s are committed to a different type of performative music and musical movement than the generations who grew up in the 2010s and now the 2020s. Today's generations grew up with technology in their hands, playing games and listening to music in a totally different format, which makes them more open to digital experiences. Anonymous also recognizes that a lot of people who turned 16 or 18 in the pandemic years (2020 and 2021) probably never experienced a physical music festival and the fact that they grew up with livestreams makes these digital experiences not exactly new to them, thereby they are more opened to try them. He goes further by saying that even people who did not see themselves as a digital audience will now be a digital audience. João Fonseca's point of view also meets with the previously mentioned interviewees when he says that young people are much more apt and at ease to use mobile applications for instance, agreeing that these digital tools are the future, especially in QF.

João Fonseca suggests that the post pandemic scenario will necessarily require changes and that these changes can be seen as an opportunity for the promoters. He thinks that the artists in the future will give a greater use to the audio-visual tools like LED screens and promoters might even put a simple stage and configurate and change all the scenarios, lights and sounds through holograms. This can be useful logistical-wise in a case where a festival has different shows in the same day. By being able to virtually change the scenery and not having to change the background, LED screen, among other

structures, they can save a lot of time for the organizers. Through computing power promoters can create in real-time completely virtual scenarios that may look real when they are virtual. With is, he indicates that one of the consequences that surge is the fact that the festivals will require much more specialized people in audio-visual tools, VR, and digital technologies in general. So, on one hand, although VR and these technologies and platforms are still very expensive, the cost of building and changing scenarios may decrease. But on the other hand, the cost of finding specialized people may increase because it is still not something that is completely implemented in the market. Nevertheless, he believes that this can also be an opportunity to create more proximity with the attendees and increase their interaction with the artists and the festival itself. This can be done by using a technological tool that allows the attendees to interact directly with the artist by choosing the next song to be played, for example, which he believes could bring value to the festival itself. Without the technological part it would not be possible to show the festivalgoers how the stage behind the festival is set up for example. By making them feel special, they can have a different experience and that reveals to be a good opportunity for the promoters. In the case of QF, he states that the organization will make efforts to seize these natural changes to improve the conditions of the event both digitally and in terms of sustainability.

Robin Collings defends that digital and virtual experiences can allow people to explore gender identity and aspects of their own personality that they might not be comfortable doing in a social group. When gamers are playing in an environment that uses weapons, they know that that it is not real. Thereby the consequences are not real, and this allows people to explore themselves, their personal-selves, and elements that society would not accept in real life. He reinforces this idea by stating that the norms of society regarding body image, body dysmorphia and our image of ourselves do not exist in this environment. “Just come with your soul, does not matter what is your body or what you choose to represent yourself with. You can be anybody here, it does not matter, it does not make a difference. The differences are yours, not mine.” However, with this freedom to be whoever we want in a digital experience, he also affirms that the promoters need to think hard about how to manage the experience and make sure it is not an area where people take advantage of that freedom to mistreat others.

He strengthens the advantages of reducing the physical constraints and feeling of belonging by saying that in a digital experience one can either play it like Grand Theft

Auto on a keyboard or put on a VR set and have a totally immersive experience. In Lost Horizon people could walk around the dancefloor and hear what other people were saying, the music was loud, and the attendees could go to the corner to “smoke”. This behaviour has a lot of similarities with the in-person experience of a festival, and that made it feel real. These types of small details can make a digital experience feel real and in the end, they are about connectivity and allowing people to feel something.

Some virtual experiences that happened in 2020 and 2021 were paid, which reveals to be an important topic to ask the interviewed. João Fonseca defends that if the promoters can create a very big differentiation from what already exists online by – for example – broadcasting the show of an artist in several angles, different dynamics, the backstage and other interesting parts of the show, it could work. However, he also defends that it could never be more expensive than the ticket to the physical experience. This meets Maria Sara Costa’s perspective when she says that at the limit the attendees could pay a minimal fee to have access to the content. The public has expectations related to the physical “festival experience” as a term of comparison, so in case they do not like the experience, at the most they will be disappointed with it. On the other side, Anonymous considers that the attendees of Festival X in 2020 reacted well to the fact that it was paid due to not being too expensive, which made them come back for the second edition in 2021.

When asked about the viability of digital and virtual experiences in general and their future, all interviewees defend that this technology is the future. João Fonseca stands by the idea that the change needs to be progressive, and that society cannot make the mistake of suddenly transitioning everything to online. He believes that in cases of more quiet and intimate events and concerts it may work online and that it gives people the possibility to maybe watch them later, which is a positive experience for them. Maria Sara Costa defends that if the festival meets the conditions of having the financial possibility of investing in this model, a strong online presence and, above all, an original and impactful virtual festival format, it can be relevant. She points out, that economic-wise we may see a jolt in the purchasing power of the people, which can increase digital festivals. However, on the other hand, it is predictable a boom of physical return to festivals and the decrease of online experiences already so intensely lived in the pandemic. This meets Anonymous’ point of view forasmuch as he considers that people right now are craving for live festivals. Even so, he also believes that physical and digital events will exist next to each other. Regarding Robin Collings’ perspective, he does not

want to proliferate screens as a way of life because he considers it to not be very beneficial in the long term for the attendees. Despite this, on the other hand he recognizes that the internet is now propagating the mindset of searching different music and these types of events allow people from anywhere in the world access real culture. If a person has internet, can access the entire history of all music and culture that has ever been created and if the creation of digital experiences gives these opportunities to people, then it should be done.

The most relevant question to this study that was made in the interviews was if the digital experience could be the same as the physical one. When interrogated, all the interviewed answered that a digital experience could never be the same as a physical one. João Fonseca says that it is utopian to say so and that for those who have experienced QF in person, it would never be possible.

“The closeness, the stories, the people, you talk with people that do not know. You share moments with people with people you do not know, you stand in line for the bathroom and meet a new person, you see friends you have not seen in a long time. (...) I do not think these kinds of online interactions would ever happen.”

Robin Collings considers that the experience that Lost Horizon provided was different than the experience of living Shangri La in person. He enhances that it is hard to compare them both forasmuch as it was a shallower and different experience. Furthermore, when asked if technologies present in in-person festivals and the combination of both models can improve the festival itself as a brand, he defends that it could make it more fun, but he does not think that they will make the real-world experience necessarily any better. He suggests that it will probably open the experience up to the rest of the world, guessing that it could make the market bigger. This also meets what João Fonseca stated in point 4 when he said that this growth of digital experiences opened doors for this market. Robin Collings continues by saying that he does not think this technological presence will undoubtedly change how production of the festival is and the experience people have on the ground. This experience is a very well carved out and designed thing and the parameters of geography and creativity are still real on the ground. He does not think that they will allow people to spend more money unless it allows brands to bring more money.

The producer also affirms that there is an industrial attitude to the way organizers of massive festivals manage the huge amount of people and that it may reduce the quality experience, so it is an aspect that should be avoided when organizing a digital experience. Maria Sara Costa supports this statement by saying that the experience for the in-person public is undoubtedly more valued and that the virtual presence has, on the other hand, the exclusivity of being part of the event and the feeling of belonging. Anonymous also agrees that a virtual or digital festival cannot provide the same experience as a physical one and that live festivals could ever be replaced by digital festivals because people are craving for the in-person ones. Nevertheless, he also suggests that this point of view may change depending on the person, mentioning the differences of younger and older audiences previously mentioned.

Analysing all the advantages, benefits, challenges, and difficulties that implementing technology on music festivals and turning them into hybrid events have, the interviewees defend that the change to a totally hybrid model must be progressive, in the right timing, with the right tools and the proper communication. With this said, the analysis of the results can be concluded with Robin Colling's standpoint (and initial quote of this research) on culture and technology that puts together and summarizes the general perspectives of all the other interviewees:

“Culture, real proper culture breeds creativity and connection. Builds bridges, relationships, and life itself. So, we can take the power of technology and mix it with the power of culture and expand the reach and expand the potential for all those positive things that the music, culture and art have, all those effects on people's lives. And you can use that mad power of technology to amplify culture and human connectivity and that is something that I really believe.”

For all the advantages, benefits, challenges, and difficulties be better understood and perceived, Tables 3 and 4 systematize the results from the interviews that were made. They are followed by a SWOT analysis in Table 5 that combines all the identified strengths, weaknesses, opportunities, and threats of implementing and adopting a hybrid model and how it affects the overall experience.

Implementation and adaptation to hybrid models			
Comfort, security and monitoring			
	Comfort	Security	Monitoring
Advantages	See the agglomeration of people in real time	Security cameras	Identifying the attendee's behaviour help to improve the venue
	Digital tickets facilitate people's lives	Validation of vaccine certificates	Being aware of patterns and behaviours allows a better communication strategy
Challenges	Internet connection and high network capacity		
	Minimal changes require huge logistics		

Table 3: Comfort, security, and monitoring

Implementation and adaptation to hybrid models		
Digital and virtual experiences		
Advantages		
Reach	Reduction of physical constraints	Feeling of belonging
Reach everybody with an internet connection	Breaks geographical and physical barriers like gravity	Sense of connectivity
Broaden the audience	Ecological more efficient	Creates more value and differentiation for the festival if a personalized experience can be delivered
Reach people who cannot attend due to financial issues	More accessible to people with physical disabilities, social anxiety and/or body dysmorphia	Breaks the barrier of culture
Showcase the festivalgoers' parts of the festival that they do not know about	Allows artists to record sets in every part of the world	
Adds outreach numbers to the festival numbers	Cost reduction in terms of physical production	

Increases the chances of people buying tickets in the next year	Provides an immersive experience without the noise of the crowd that some people do not like	
Increases the interactions and social media reach	Not limited to timings	
	Weather is not a problem	
Challenges		
Cost and investment	Accessibility	Create differentiation
Expensive technology	Not all audiences have access to VR and/or purchasing power to acquire it and invest on the digital experience	Make the virtual experience as overwhelming as the physical one
Licensing and copyrights with artists	Correct choice of platforms that are accessible to most of the public	Create proximity with the public
Requires huge communication effort		Make people see it as cultural event

Possible lack of clarity in the communication transmitted to the public		Convince artists to take the risk
Time and the specialized team necessary to create the experience		Make the content suitable for both adults and children without holding back artists
Convince brands to invest in these events and experiences		Make audiences emotionally commit to it

Table 4: Digital and virtual experiences

The overall experience

Strengths	Weaknesses
<ul style="list-style-type: none"> - Holograms and VR can create proximity with the public and increase interaction - Digital and virtual events allow the exploration of personal identity - Norms of society do not exist - Digital and virtual experiences can be immersive enough to be close and similar to reality - Digital and virtual experiences are possible to watch later or on-demand - These experiences allow people to access real culture and the entire history of music - Exclusivity of being part of the event 	<ul style="list-style-type: none"> - Digital and virtual platforms are expensive - People are craving for physical festivals - Digital experiences cannot replace the physical music festivals - Experience on the ground is well carved out and designed - Parameters of geography and creativity are still on the ground - There is an industrial attitude towards the public of massive festivals - Experience of the in-person public is more valued - Requirement of more specialized people and technologies
Opportunities	Threats
<ul style="list-style-type: none"> - Younger generations do not have the nostalgic feeling - Young people are more open and apt to technological devices and platforms - Post pandemic scenario requires changes - Cost of physical production may decrease - Both models open the festival up to the world - Growth of the digital market 	<ul style="list-style-type: none"> - People can take advantage of the freedom that the internet provides and mistreat others - Not have the financial possibility to invest on these experiences - Purchasing power of people (they do not have a lot of money after the pandemic to invest in an in-person festival)

Table 5: The overall experience

5 Discussion

In what concerns comfort, security and monitoring, Mortensen et al. stated that music festivals are constantly required to improve the efficiency of their infrastructures, which meets with João Fonseca's perspective when he affirms that the organization of QF will make efforts to seize the natural changes of society and technology to improve the conditions of the event both digitally and in sustainability. With this, both the authors and the interviewees recognize the need of music festival organizers to pay attention to the technological changes that are happening in real-time today and apply them to their event. Their purpose is to facilitate and improve the attendees' experience, as well as the accessibility to and inside the venue.

As mentioned in the framework, and according to Winkle & Bueddefeld (2020), the RFID wristbands help avoiding queues and paying problems, collecting also important information about the attendees' habits inside of the festival. João Fonseca also mentions the usefulness of these technologies for marketing purposes. They are important also to understand what payment method is preferred by the festivalgoers', using that information to improve the options available and thereby facilitating the experience. Patchen (2015) reinforces this statement by affirming that RFID technologies aligned with virtual payments increase the overall revenues of music festivals, thus enhancing the festival experience of the attendees.

As already explained in the previous chapter, all the interviewees agree that the reach is the biggest advantage of a hybrid model and that it promotes interaction in the digital channels. This is supported by Jones & Bennett (2015) when they suggest that live concerts complement participation on online communities such as music blogs and social networks. João Fonseca enhances the power of these tools to reach more people and gives the example of the livestream of QF's events, that gave the students who never attended the event an opportunity to be aware of it and to get to know it better.

According to Hatch (2020), livestreams can reach large audiences, are a great tool for audience engagement and Kacicki (2019) also defends that they are an optimal way of introducing an experience to new customers. As mentioned before, João Fonseca believes that technology in music festivals increases the chances of people buying tickets for the next years and this is supported by the study conducted by Digitell. The study concluded that 30% of people that watch a livestream event buy a ticket for the physical

event in the next year. Pitchfork (2017) also supports these statistics by mentioning that current technologies that aim to produce an immersive experience will make the attendees come back in the next edition. So, we can detect an agreement by the authors and the interviewees on this matter.

Regarding the presence of the brands in hybrid experiences, Maria Sara Costa believes that their presence can be doubled (physically and virtually), which goes in accordance with Ribeirinho (2014) when the author mentions that brand recognition is important forasmuch as offers possibilities to communicate in different ways to the public. It is also possible to see on Attachment IV the importance of brand presence and brand activations in music festivals, that Deng (2018) believes that can create value in the attendees' mind.

The interviewees agree that a virtual experience reduces and eliminates physical constraints like gravity, allowing the experience of the festival to be lived in the comfort of our homes. Maria Sara Costa reinforces this idea by saying that factors like the purchasing of the transportation to the festival, planning of accommodation, among other required processes, are not a problem in a digital experience. This is supported by the estimation of Bandsintown, whose results demonstrate the power of these experiences for the festival's brand and, according to Haider (2019), allows the people to feel the atmosphere of the festival without leaving their houses. The sense of *embodiment* that Rueda & Lara (2020) presented meets Robin Colling's perspective of the ease of building an avatar and change it every 5 minutes. Won, Bailenson & Lanier (2015) also support this statement forasmuch as they affirm that this body illusion can be achieved by inhabiting those same avatars.

Anonymous, Maria Sara Costa and Robin Collings also recognize the importance and influence of the weather and its power to ruin an in-person festival. Supported by Gajanan (2019), this author also indicates this factor as a risk and a powerful mean to ruin the experience. The interviewees acknowledge that in a digital environment this is not a hindrance and that a digital experience does not require the public to be at the same place and not even at the same time. Like Anonymous points out, people can watch the contents on-demand or check it back later and this goes in accordance with Jones & Bennett (2015). The authors fortify this idea by saying that thanks to these technologies, the definition of live music was expanded, thereby shows do not require this need to be in the same place at the same time.

Cost and investment-wise, all the interviewees indicate the financial investment as the biggest challenge of hybrid and digital experiences. Not only in terms of technology and production, but also in communication, musical rights of the artists and the requirement of specialized people pointed out by João Fonseca. Saville (2018) asserts that nowadays music festivals are more expensive not only to organize but also to attend and Robin Collings identifies the problem that a lot of festivals do not have the money to invest in a hybrid model. Maria Sara Costa acknowledges the same difficulty, enhancing the special impact of the covid-19 pandemic on the industry and on the purchasing power of the public. On the other hand, the statistics of Coachella, Tomorrowland and Glastonbury demonstrate how a digital presence has return on investment, going against Maria Sara Costa's point of view, that believes that the communication efforts to reach significant results in a hybrid model may be too demanding to cohabit with a physical festival.

On the other side, Charron (2017) affirms that the economic potential of virtual concerts is almost infinite, and Deng (2018) enhances the importance of brands as major players in a music festival, able to provide consumers enjoyment and entertainment. Robin Collings goes further by asserting that the tech sector should invest on the culture sector and that a job of convincing the brands to apply their money on festivals must be done.

Lastly, regarding digital and virtual experiences and how they affect and impact the overall experience, Rueda & Lara (2017) state that VR is an experience generator able to provide stimulating events that may be experienced in physical reality or similar to that reality. This meets Robin Colling's point of view when he gives the example of people in Lost Horizon being able to go to the corner of the virtual venue to avoid the crowd, making it feel like a real-world experience. On the other hand, Harper (2015) says that digital experiences do not provide the "possibilities for the unexpected, iterative and expansive experience", which is supported by Lovatt (2021), that stands by the idea that all the aspects that compose a music festival should have the same high standard for everyone whether they choose to attend physically or virtually.

Maria Sara Costa affirms that the experience of the in-person public is more valued, and Holt (2010) reinforces this idea by saying that live performances still keep the uniqueness of *being there*, that cannot be reproduced in a digital festival. Gajanan (2019) also affirms the same idea by saying that due to digitalization and streaming of

music, live music has become much more special. However, all the interviewees agree that a digital experience provides and creates a feeling of belonging. Maria Sara Costa also enhances that a virtual experience has the advantage of having the exclusivity to make people feel like they were there. This affirmation is supported by the research of Rosa et. al (2016) that states that immersive virtual experiences are thought to lead to even higher levels of *presence* and according to Charron (2017), this concept is usually associated with immersive technologies like VR.

In what regards the dimension of *now* presented by Harper (2015), the author considers that a digital experience loses this important aspect. On the other hand, and as mentioned before, Anonymous points as an advantage of digital experiences the facility of accessing the contents that the festivalgoers' want to see at any time that they prefer. The access to information and culture is also highlighted as a strong advantage by Robin Collings, that explains that with access to the internet it is possible to search for everything that the public wants, music-related or not. This is strengthened by Burland & Pitts (2010), affirming that digital technologies are powerful tools in presenting new performers, facilitating information and content. Which has the consequence of reducing the financial risks of attending a live show.

Robin Collings highlighted the advantages of digital experiences regarding personal physical constraints like disabilities, social anxiety, or body dysmorphia. Enhancing also how people are free to be whoever they intend to be and explore their inner selves in an environment propitious to that exploration and interaction with others. Hatch (2020) supports this idea and identifies digital experiences as being especially adequate to people with physical or cognitive limitations. Kinnunen (2018) also stands by the idea that music festivals are places capable of building people's identity since they offer means to identity building and its demonstration to others. Which Robert Collings also mentioned when explaining that digital and virtual experiences allow people to explore gender identity and that only their soul matters inside a digital world.

With this said, authors and interviewees agree that for a hybrid model to work, a differentiation factor needs to be created. Morgan (2009) asserts that the overall experience must be created in a way that is so unique and memorable that will remain in the attendee's mind. This meets what Robin Collings pointed out about making the offer good enough in a way that make people feel committed and emotionally committed to the event. Not only the physical but also the digital one, starting by seeing it as real cultural

thing. Slager (2021) says that promoters cannot solely rely on a good line-up or a good environment to keep the audience engaged and João Fonseca identifies the difficulties in creating something that differentiates one festival from another if what they do is not very innovative and does not stand out from the rest. It is also necessary to have in consideration that music festivals grew into a major money-maker business, according to Gajanan (2019), something that Robin Collings also mentioned regarding Glastonbury being a massive money-making machine. Withal, to create differentiation, Robin Collings defends that the promoters must create an energy that makes people feel like they are, like they belong, also highlighting the big importance of artists in this process.

All the interviewees agree that a digital experience could never be the same as a physical one, with Robin Collings suggesting that a combination of both models could make the overall experience more fun. However, he does not believe that it could necessarily improve the physical experience. Like presented before, Harper (2015) suggests that digitally mediated experiences cannot offer the same experience as a physical experience and João Fonseca agrees with this by saying that it would be utopian to say that both models provide the same experience to the attendee.

With this discussion, it is now possible to answer the questions previously made in the Introduction of this research. Regarding the question “How the implementation of technologies – transforming music festivals into hybrid events – affects the overall experience of the attendee?”, the authors and the interviewees agree that it can increase the sense of *embodiment*, the feeling of being there and belonging to the event. Allow people to explore themselves and connect with others since physical constraints are not an issue. Concerning the physical event, the authors and the interviewees agree that it can improve the venue in facilitating questions of logistics, transportation, or payments, also facilitating the experience of the attendee.

They point out cashless systems and digital payments, monitoring platforms, improvement of infrastructures, and freedom of expression as the ways that technology can improve the music festival. Therefore, answering the question “In what ways technology can improve the music festival?”. On what regards the challenges, aspects like inaccessibility to VR equipment, high cost and investment and creation of differentiation as the bigger challenges, thus answering the question “What about the challenges?”. Like previously mentioned, all interviewees and authors agree that a digital and/or virtual experience can never provide the same experience, answering to the ultimate question.

FINAL CONSIDERATIONS

6 Conclusion

The elaboration of this study was very important to understand what the current state of the art regarding the topic is and have a deeper knowledge about how the concept of “overall experience” started. The acknowledgement of the importance of Woodstock or Monterey and the general evolution of musical genres provided a broad background, as well as understanding the huge significance of music festivals in the global economy and in the culture.

Being technology such a commented subject in the most various areas of society, doing research about its usefulness being applied to music festivals enriched this investigation and defined what was the subject of study. With the further exploration of specific technologies that are being implemented nowadays and 2 concrete examples of digital and virtual festivals, we can conclude that hybrid models are definitely a reality that we must be acquainted of in the years to come.

The framework showed the different points of view regarding how these technologies affect the overall experience of the attendees, focusing as well on how it can increase and improve the music festival’s brand recognition. The challenges on what concern internet connection, accessibility in terms of network, the proper equipment and financial possibilities were acknowledged, as well the financial investment that needs to be made, carefully, by the brands. Several important aspects as human resources (specialized professionals), logistics (travels, equipment), communication and, above all, a differentiative factor need to be taken into consideration when the promoters think about embracing this growing reality.

However, advantages like the exponential reach and its high probability to increase the brand’s recognition, the personalized experience that can be provided and the feeling of true *embodiment*, *presence* and **belonging** need to be remembered and thought through to provide the attendees a meaningful experience that they will remember. Thereby perpetuating the relationship between the festival and the festivalgoer, as well as the promotion of a good and solid brand image to society.

The importance of sponsor brands and brands as investors in this sector was highlighted too, recognizing the urge of tech companies to invest in culture and amplify its power. Brands should seize the predisposition of the attendees to be shown new and exciting things and use to power of culture to amplify their business in return. Therefore,

culture and technology can walk together towards a future that is more special, meaningful, memorable, and efficient at the same time.

The authors and the interviewees agree on the facility that the users have in changing who they are on a physical level inside of an immersive experience, not having the constraints of real life limiting them of being who they want to be. Walking in direction to a future where questions like sexual orientation, gender identity and body image will hopefully stop being an issue, music festivals – as experience generators and identity creators that they are – must keep up and promote these changes themselves. They must be active members of social liberation, social justice promoters and safe spaces where experiences and memories can be created and perpetuated.

7 Contributions and impacts

This study generated a lot of awareness and discussion for the scientific community but specially to music festival organizers. Through this investigation were made significant contributions with the expertise of experienced professionals in hybrid events or who are considering following that path. Their insight was crucial to understand the true reality of immersive experiences and their influence and impact on the audiences.

A strong highlight was made in this research to festivals like Coachella Valley Music and Arts Fair, Glastonbury Festival of Contemporary Performing Arts, Shangri La's online version "Lost Horizon" and Tomorrowland for being worthy case studies in what concerns their digital and technological approach. It was analysed how they embrace social and digital channels, created a digital experience (Shangri La and Tomorrowland) and how that can set an example to festivals who are considering implementing this reality in their activity.

This study might be useful to music festival organizers to have a deeper and practical knowledge about the current state of digital and/or virtual experiences and have all the advantages, challenges, and aspects on the table. They might be able to define the best technological and marketing strategies that create value and differentiation, and the SWOT analysis along with the previous table might help in this end. They summarize all the determinant aspects of what a hybrid model can and cannot provide both for the attendees and the promoters.

8 Study limitations

The limitations to this study were the number of interviews that took place. To have a broader and more amplified vision of this reality, more promoters and specialists should have contributed and provide elucidation about the topic. More professionals who implemented technology and embraced hybrid models as well as promoters that do not have interest in doing so could have presented their points of view. This happened due to the lack of answers to the contacts made and the lack of time to try to reach more contributors. Hereupon, this research lacks a bigger and broader gathering of different perspectives about hybrid models, which can be seen as an unfavourable to a completely partial investigation.

9 Recommendations for future investigations

Having in consideration the limitations previously mentioned, the recommendations for future investigations are based upon havening the contribution of more experts on the area as well as promoters who are not in favour of hybrid models. A case study “on the field” would also be valuable forasmuch as would give direct and true insight of this growing reality and all the challenges, problems, and advantages that it has. An attentive and close vision could be extremely useful and provide powerful information to professionals on the area.

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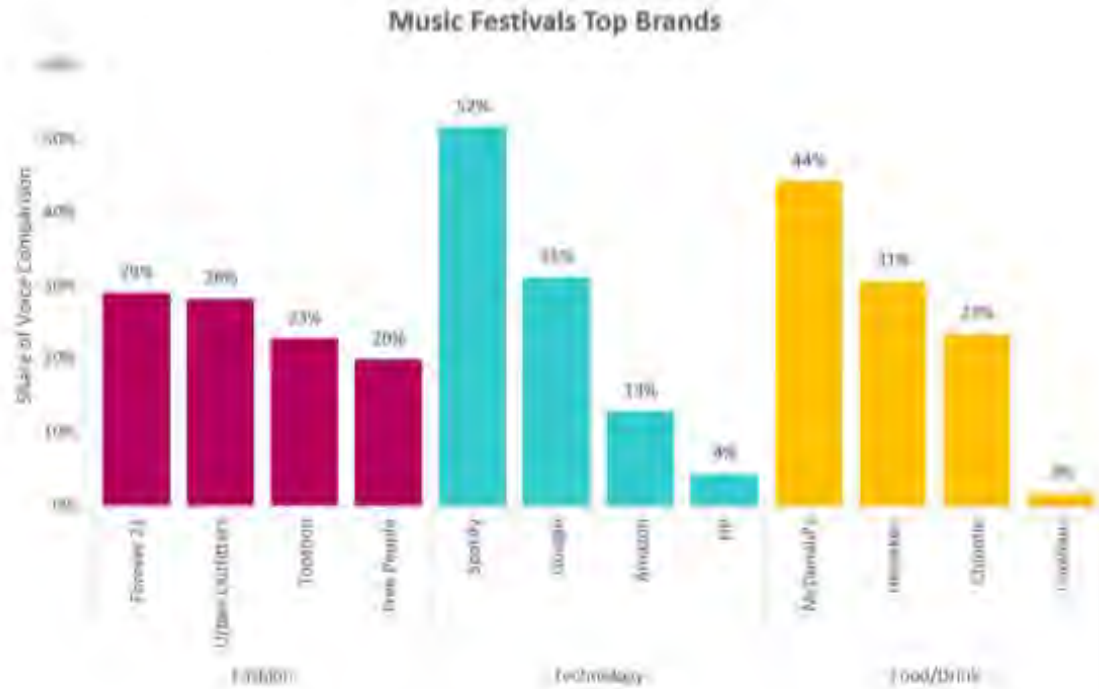
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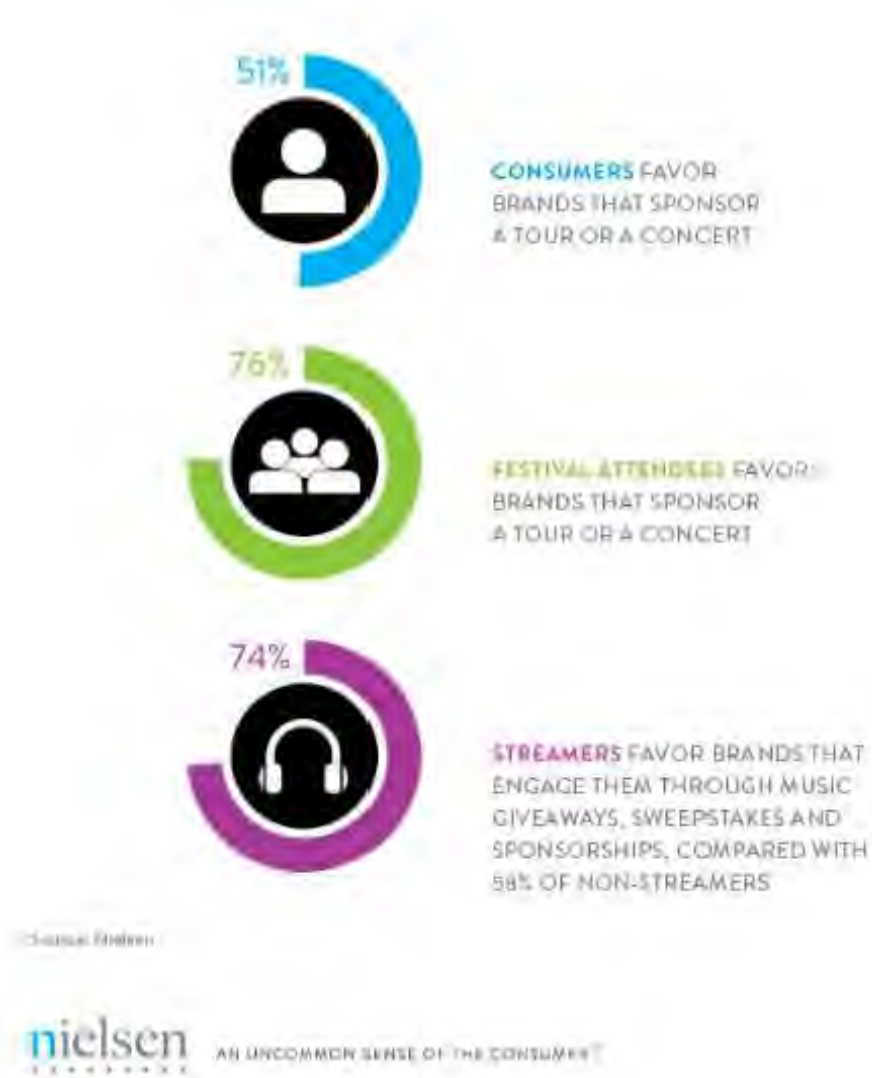
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ATTACHMENTS

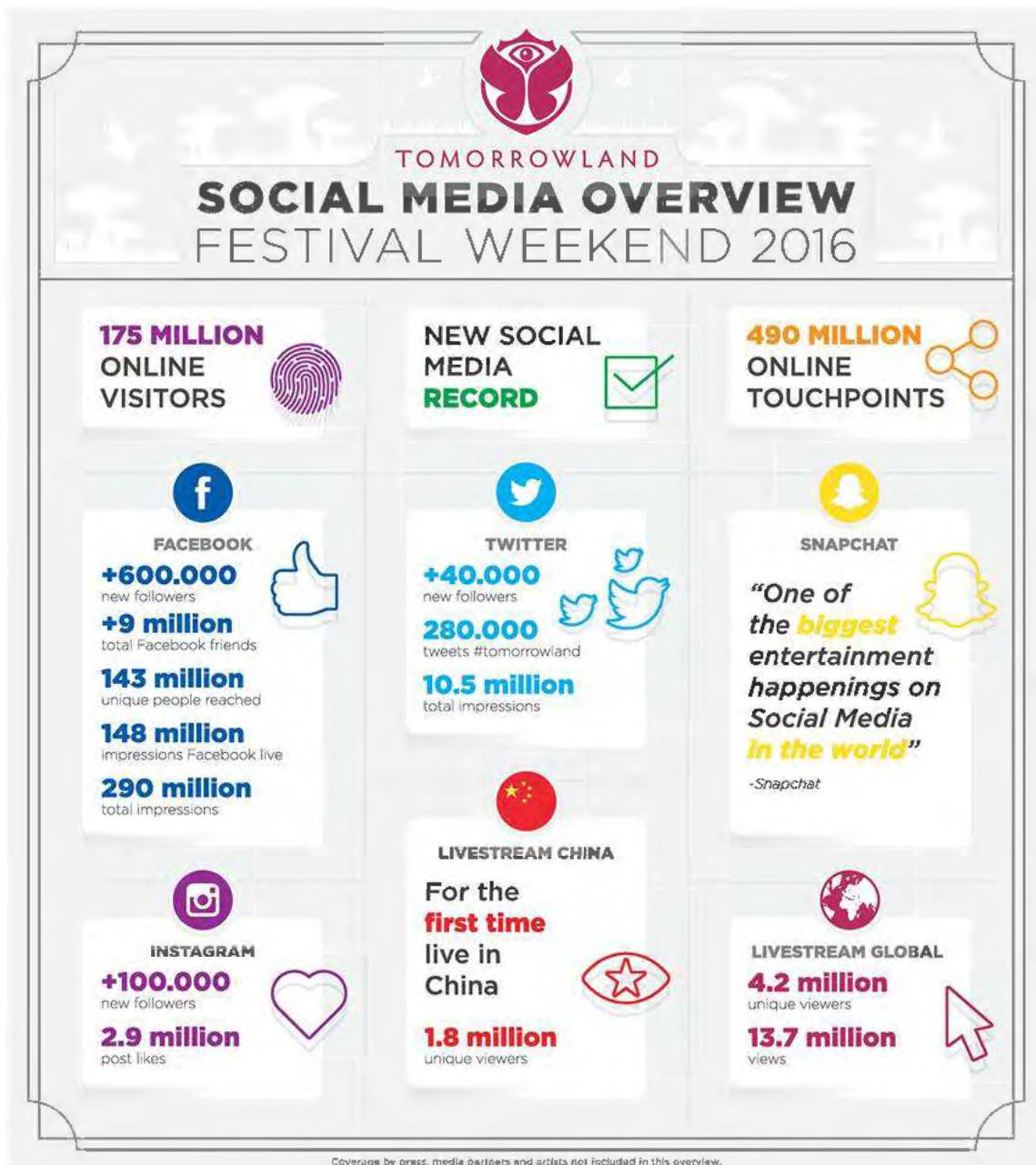
Attachment I – Major brands at music festivals (retrieved from Brandwatch)



Attachment II – Nielsen “Music 360 Report” (retrieved from Nielsen)



Attachment III – Tomorrowland: Social Media Overview 2016
 (retrieved from Festival Sherpa)



Attachment IV – Coachella’s social media engagement (retrieved from Netbase Quid)

