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FROM THE PHYSICAL STAGE TO THE VIRTUAL REALM: Immersive environments as a Communication Opportunity for Music Festivals

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ABSTRACT

This study explores the communicative potential of immersive environments as an emerging tool for music festivals seeking to engage digitally native audiences. It examines the extent to which immersive technologies are integrated into festival communications, assesses audience receptiveness, and gathers expert perspectives to identify strategic pathways for implementation. A sequential explanatory mixed-methods design was employed, comprising a survey of 200 young adults, a content analysis of festival websites and Instagram profiles, and in-depth interviews with five industry experts. Meta-inferences were drawn to generate integrated recommendations. The analysis reveals limited integration of immersive technologies into the digital communication strategies of the festivals studied. Although audience familiarity with these platforms remains limited, there is interest in virtual experiences, particularly among more digitally engaged users. Experts identified the metaverse as a viable complementary space for enhancing pre- and post-event engagement, provided that challenges relating to cost, accessibility, and narrative coherence are addressed.

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1. Introduction

Music festivals have become events of significant cultural, social, and economic impact (Anderton, 2018). In Spain, these events generated a record turnover of €578 million in 2023, marking a 26% increase compared to the previous year (Mir, 2024). Andalusia, in particular, plays a strategic role in the national music circuit, hosting some of the country's most widely attended festivals. The Spanish region had the highest concert attendance in 2023, with 4,924,191 spectators, although still 8.1% below pre-pandemic levels (La Vanguardia, 2024). According to the Asociación de Promotores Musicales (APM, 2023), events such as Starlite in Marbella (360,000 attendees) and Marenostrum in Fuengirola (188,000 attendees) demonstrate the consolidation of this region as a central hub for live music culture. Málaga has emerged as a key hub within this landscape, owing to its infrastructure, connectivity, and commitment to contemporary leisure, generating over €14 million in revenue in 2022 (APM, 2022).

A key factor in this transformation is the relationship festivals maintain with younger audiences. This demographic is defined by its hyperconnected nature, technological fluency, pursuit of meaningful experiences, and alignment with values such as diversity, sustainability, and participation (INJUVE, 2024). Reason Why (2018) noted that 50% of young people prefer festivals featuring multiple artists, reflecting a fragmented, dynamic, and variety-driven consumption logic. This audience seeks entertainment and environments that combine shared experiences, cultural identity, and individual expression.

In this context, there is an opportunity to strengthen the connection between festivals and their audiences. Recent initiatives, such as the 360-degree symphonic experience by the Orchestre de la Suisse Romande (Naredo, 2024) or the Symphony project launched by Fundación "la Caixa" (2024), have demonstrated that virtual reality can complement, enrich, and expand access to musical events. Concerts held on platforms like Fortnite (Travis Scott, Ariana Grande) or Roblox (Lady Gaga, Ava Max) illustrate how such technologies can be integrated into the contemporary music ecosystem (Pérez, 2022).

These formats align with a broader shift driven by digitalisation, which has reshaped cultural consumption habits and how music events are conceived, promoted, and experienced. Despite these developments, academic studies addressing the incorporation of music festivals into immersive environments remain limited. Regarding their position within the digital ecosystem, Martín Ramallal (2024) has argued that immersive spaces enhance communicative interaction through new narrative possibilities. Concerning social perceptions, Al-Adwan et al. (2023) identified perceived usefulness, individual openness to adopting new technologies, and perceived enjoyment as key factors enabling users' willingness to adopt the metaverse. Turchet (2023) further emphasised the need for an interdisciplinary approach involving developers, artists, and institutional stakeholders to tackle the musical metaverse's technical, creative, and ethical challenges effectively.

Despite the growing popularity of virtual reality spaces as an emerging arena for cultural communication, its incorporation into the communication strategies of music festivals remains limited. This lack of integration raises questions about how such events could incorporate, communicate, and legitimise new experiential formats in line with the expectations of increasingly digital-native audiences. In this light, the present study seeks to explore young audiences' perceptions and willingness to engage with interactive digital ecosystems, analyse how music festivals currently configure their digital communication and identify strategies proposed by experts for their legitimate and functional integration into the festival experience in line with the expectations of digitally native audiences.

2. Literature review

Music festivals serve as cultural agents that construct meaningful narratives through live experiences (Fouce, 2009). These events function as social interaction spaces that blend

physical and digital dimensions, particularly via communicative tools such as websites and social media platforms.

Festival websites play a strategic role in communication with the public. Their design and structure directly influence user experience and brand perception. A clear, accessible, and functional layout enhances navigation and conveys professionalism (Nielsen & Loranger, 2006), while organising practical content—such as schedules or ticketing—supports attendees' planning (Luonila & Johansson, 2016). Moreover, multimedia elements help convey the festival's atmosphere and generate an emotional connection with users (Oklobdžija, 2015).

Social media has transformed how festivals build their digital and emotional presence. Instagram, in particular, has established itself as a key channel due to its visual nature and high engagement among younger users (IAB Spain, 2024). Its diverse formats (posts, stories, reels) enable tailored messaging for different communication goals and optimise user attention (Sheldon & Bryant, 2016). Interaction metrics indicate emotional connection and message effectiveness (Phua et al., 2017).

These platforms have evolved beyond purely informative roles; they now operate as strategic environments through which technological innovation can be introduced and integrated. Their potential to showcase or introduce emerging technologies, such as immersive experiences, warrants an analysis of how these innovations have been incorporated into or made visible within current communication frameworks. Accordingly, (RQ1): What is the degree of presence and functionality of immersive technologies in the digital communication platforms of music festivals?

Within this ecosystem, the metaverse has emerged as a new channel that can redefine how brands forge meaningful relationships with their audiences (Castro Valle et al., 2025) and enhance cultural experiences. Events on platforms like Fortnite or Roblox demonstrate how festivals can adapt to immersive environments, offering alternative forms of emotional engagement. However, recent studies have pointed out significant adoption barriers, including technical constraints such as platform interoperability and economic factors like high development costs (Turchet, 2023).

Immersive environments offer cultural organisations and brands unique opportunities to design personalised, immersive, and collaborative experiences, reshaping consumer relationships and redefining audience roles in digital spaces (Dwivedi et al., 2022b). Young audiences—primarily aged between 18 and 24—represent a key target group and active agents in developing contemporary cultural narratives (Bennett et al., 2014; Wortman & Ruibal, 2020).

Although this demographic is typically seen as the natural audience for the metaverse, they face perceptual barriers to immersive technologies. While they value connectivity, immediacy, and personalisation, they also exhibit reluctance towards technologies not perceived as clear improvements over traditional formats (INJUVE, 2020). Scholars such as de Kervenoael et al. (2020) and Lehdonvirta (2022) argue that despite their digital fluency, young people's adoption of immersive experiences depends on perceived value, technological accessibility, and the cultural authenticity of those experiences.

This ambivalence demands communication strategies attuned to the group's cultural codes, digital languages, and consumption habits. Therefore, (RQ2): What is the level of experience and willingness among young people to participate in music festivals in immersive environments?

Studies have shown that the design of virtual spaces significantly influences users' emotional perception, sense of presence, and active participation (Dwivedi et al., 2022a; Turchet, 2023). In particular, levels of immersion, personalisation, and navigability affect the emergence of flow states and satisfaction—key factors for fostering loyalty and symbolic co-creation (Wang et al., 2024). These environments also enable new forms of identity expression through avatars, allowing users to explore roles, project idealised versions of themselves, and build meaningful social connections (Bainbridge, 2007; Fox et al., 2020).

However, these dynamics come with risks, such as isolation, overexposure, or technological dependency, especially among hyperconnected youth (Rinaldi & Centofanti, 2024). Beyond individual effects, these experiences influence the formation of virtual communities, where symbolic interaction, aesthetics, and participatory logic shape new models of cultural consumption (Dwivedi et al., 2022a; Wang et al., 2024).

Recent research has explored the intersection of virtual worlds and music festivals using diverse methodologies. Narin (2021) conducted a content analysis identifying growing academic interest in cultural events in the metaverse, including music festivals. Anderton (2023) examined the digital narratives of festivals aligned with Web3 technologies, noting the emergence of decentralisation and co-creation. Gallarza et al. (2023), using a survey of virtual event consumers, found that perceived value in immersive music festivals is shaped by enjoyment, novelty, and symbolic connection. Wang et al. (2023) confirmed that platform usability, experience stability, and technological familiarity condition metaverse acceptance. Additionally, Boem et al. (2024) reported from expert interviews that integrating the metaverse into festivals requires narrative planning and phase-by-phase adaptation. Turchet (2023) highlighted the importance of designing credible, emotionally resonant environments that complement live experiences.

Despite the advancement of this literature, there remains a lack of an integrative perspective that simultaneously analyses institutional discourse, audience attitudes, and expert insights. Previous research has tended to address these dimensions separately or focused on already digitised contexts, overlooking festivals that have not yet undertaken technological transitions. In this context, (RQ3): How should immersive environments be integrated into music festivals' strategic communication planning? This study contributes to closing this gap by examining, in an interconnected way, how festivals communicate in digital environments, how young audiences interact with immersive experiences, and what strategies experts consider viable for implementing the metaverse in the festival sector.

3. Methodology

This research follows an explanatory sequential mixed-methods design (Creswell & Plano Clark, 2018), which enables a comprehensive understanding of the current possibilities for implementing immersive environments in music festivals.

The study was structured into four phases to ensure robust inferences (Pole, 2009). First, a questionnaire was administered to identify the most recognised music festivals among the target population and to gauge participants' initial perceptions. Second, a content analysis was conducted to determine the extent to which immersive technologies were being implemented in these digital spaces. Third, in-depth interviews with experts were used to explore critical communication planning and management issues in immersive environments. Fourth, a final synthesis phase was included to integrate the findings and generate meta-inferences. This final step articulated the results coherently, allowing for the formulation of strategic communication pathways and viable action proposals. As Fetters et al. (2013) and Creswell and Plano Clark (2018) highlight, this synthesis improves the practical and explanatory strength of mixed-methods designs by integrating quantitative and qualitative approaches into a unified, actionable perspective.

The following objectives were defined based on the three research questions introduced earlier. Concerning (RQ1): What is the degree of presence and functionality of immersive technologies in the digital communication platforms of music festivals?

O1. To examine the communication strategies employed by festivals in digital environments.

Regarding (RQ2): What level of experience do young people report regarding participation in music festivals held in immersive environments?

O2. To analyse the perceptions and willingness of young audiences to engage with the immersive ecosystem as a space for musical experiences.

Finally, to address (RQ3): How should immersive environments be integrated into music festivals' strategic communication planning?

O3. To identify viable communication strategies for integrating virtual spaces into music festival environments.

To achieve Objective 1, a content analysis was carried out on the online communication tools used by selected festivals to address the first objective. Grounded in Krippendorff's (1980) methodological framework, this technique is widely employed for systematically evaluating communication patterns. The analysis was organised into thematic blocks, including websites, social media platforms, and mobile applications. Concerning websites (see Table 1), variables such as design, functionality, accessibility, SEO positioning, social media integration, and the presence of interactive tools were assessed. For Instagram, the analysis focused on post frequency, hashtag use, discursive intent, visual formats, and communicative functions, aiming to identify the potential for incorporating immersive technologies.

Table 1. Websites and Social Media Profiles Analysed

Festival	Website	Official Instagram profile
Oh, See! Málaga	https://ohseemalaga.com/	@ohseemalaga
Weekend Beach	https://www.weekendbeach.es/	@weekendbeachfestival
Brisa Festival	https://www.brisafestival.com/	@brisa_festiva
Cala Mijas	https://calamijas.com/	@calamijasfest

Source: Own elaboration, 2026.

To achieve Objective 2, a structured questionnaire was administered to 200 young people aged between 18 and 24, identified as a key audience segment for music festivals. Following the guidelines of Hernández-Sampieri et al. (2008), the survey comprised three parts. The first collected demographic data (gender, age, and educational level). The second explored cultural habits, including festival attendance, use of social media for information, and familiarity with emerging technologies. The third examined attitudes towards the immersive ecosystem, focusing on prior knowledge, willingness to participate in virtual events, and perceived barriers such as unfamiliarity, cost, and lack of social interaction.

Finally, to achieve Objective 3, in-depth interviews were conducted with five professionals from the music, technology, and communication sectors (see Table 2). As Taylor and Bogdan (1987) noted, this qualitative method is well-suited to exploring subjective perceptions and eliciting strategic insights. The interviews followed three thematic axes: the current status of immersive environments, perceived opportunities and limitations, and proposed strategies for implementation. These interviews provided context for interpreting the findings from the previous stages and contributed practical insights for incorporating immersive digital environments into festival communication strategies.

Table 2. Professionals on the expert panel

Expert	Professional activity
Expert 1	Concert promoter
Expert 2	Full professor of Audiovisual Communication
Expert 3	Music industry professional
Expert 4	Music promoter
Expert 5	Head of communications

Source: Own elaboration, 2026.

A mixed-methods approach enabled effective triangulation, providing a more nuanced understanding of the topic under investigation. This design enabled the comparison of communicative patterns, audience attitudes, and expert perspectives, which is in line with the recommendation by Reichardt and Rallis (1994) regarding the complementarity of qualitative and quantitative methods. Furthermore, this integration strengthened the

validity of the findings and established a solid foundation for generating forward-looking, action-oriented proposals.

4. Results

4.1. Digital presence of the festivals under study

The content analysis conducted on the websites of the selected music festivals revealed a consistent implementation of strategies aimed at search engine optimisation (SEO), reflecting a shared commitment to enhancing digital visibility. All platforms featured responsive design, ensuring compatibility across devices and screen sizes and improving the user experience.

The main navigation menu followed a horizontal layout in every case, contributing to more intuitive browsing. However, none of the websites included an internal search engine, which limited quick access to specific information and forces users to rely exclusively on the menu architecture.

Regarding available content, all websites displayed the festival line-up and provided a visible button for ticket sales—two key components for promoting the event and converting visitors into attendees. Three festivals also included a general information section, except Brisa Festival. A Frequently Asked Questions (FAQ) section appeared only on the Oh, See! Málaga website.

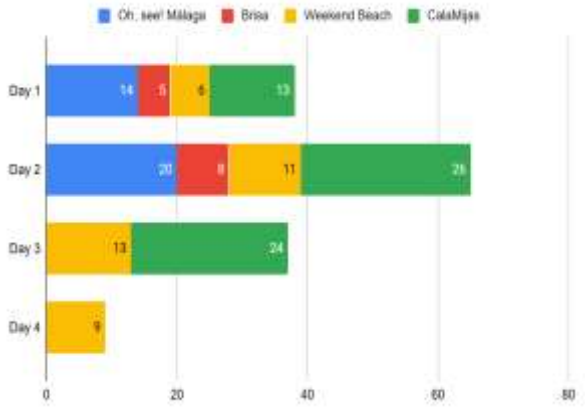
As for additional services, Weekend Beach was the only platform that included information on the Bono Cultural. Features such as a cloakroom service (Oh, See! Málaga) or access to exclusive membership programmes (e.g., The Music Club, in the case of Weekend Beach) were partially present on three out of four websites.

References to previous editions appeared solely on the websites of Brisa Festival and Cala Mijas, with only the latter offering an accessible image gallery. All four festivals displayed sponsor logos or mentions. However, only Weekend Beach provided a dedicated press room section, while Oh, See! Málaga, Brisa Festival, and Cala Mijas omitted this feature. The option to subscribe to a newsletter was available on the Brisa Festival and Cala Mijas websites but was absent from the other two. Nonetheless, all platforms offered some form of direct contact with the organisers, either through an email address or a contact form.

Concerning social connectivity, all websites were linked to official social media profiles. However, none of the festivals had a dedicated mobile application, nor did any platforms include modules, references, or sections related to immersive technologies such as virtual reality or augmented reality.

The analysis of the official Instagram profiles (Figure 1) examined publication volume, format, discursive intent, communicative function, and user engagement. During the study period, Oh, See! Málaga published a total of 34 posts, averaging 17 publications per day. Of these, 97.1% were image-based, and 2.9% consisted of video content. Regarding discursive intent, promotional messaging dominated (76.5%) over informational content (23.5%). Communicative functions were distributed among interaction (55.9%), humanisation (38.2%), and other purposes (5.9%). These posts collectively received 8,498 likes, with a maximum of 816, a minimum of 43, and an average of 250 per post. Regarding comments, the festival recorded 252 user interactions, averaging seven per post, with a maximum of 43.

Figure 1. Daily communication activity

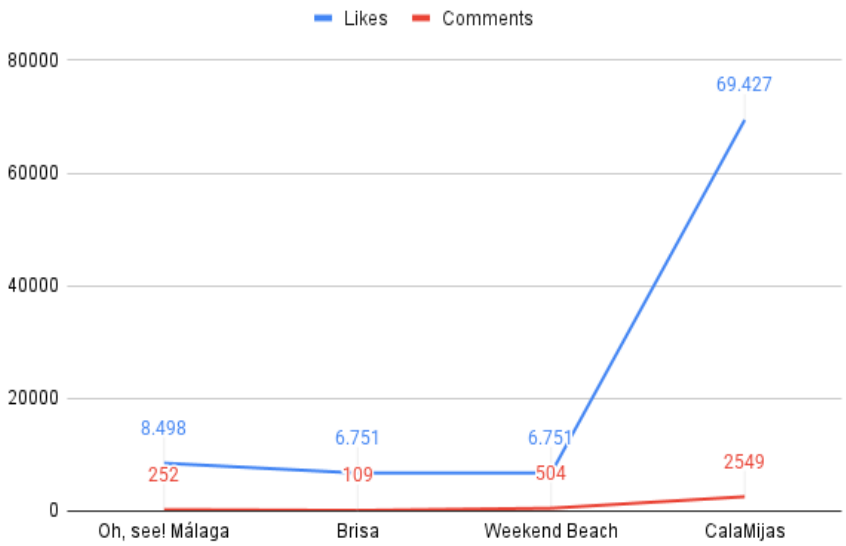


Source: Own elaboration, 2026.

For Brisa Festival, 13 posts were published, averaging 6.5 posts per day. Of the content, 53.8% comprised images, while 46.2% comprised video material. Promotional discourse dominated (69.2%) over informational content (30.8%), with a notable emphasis on humanising functions (61.5%) and interactive engagement (38.5%). These posts garnered 6,751 likes, with an average of 519, a peak of 3,717, and a minimum of 140. Regarding comments, 109 were recorded, averaging eight per post, with a maximum of 27.

During Weekend Beach Festival, 39 posts were shared, representing an average of 9.75 daily posts. Among them, 87.2% were image-based, and 12.8% were videos. Discursively, 79.5% of the content was promotional, while 20.5% served informational purposes. Communicative functions included humanisation (56.4%), interaction (38.5%), and other aims (5.1%). These posts accumulated 6,751 likes (see Figure 2), with an average of 173, a maximum of 2,641, and a minimum of 171. A total of 504 comments were registered, averaging 13 per post, with a peak of 65 and a minimum of three.

Figure 2. Total reactions to content



Source: Own elaboration, 2026.

Cala Mijas published 63 posts, averaging 21 posts per day. Of the content shared, 55.6% were videos, and the remainder were images. The predominant communicative function was interaction (47.6%), followed by humanisation (34.9%) and other purposes (17.5%).

The discourse was primarily promotional (79.4%), with only 20.6% serving informational purposes. These posts generated 69,427 likes, with an average of 1,102 per post, a peak of 11,595, and a minimum of 159. Regarding comments, 2,549 were recorded, averaging 40 per post, with a maximum of 222.

Figure 3. Most-liked and most-commented post

Source: Instagram Calamijas

The post with the highest "likes" was identified on the Cala Mijas profile and featured a live music performance video (see Figure 3). Similarly, the entry that received the most comments also belonged to this festival and was related to the announcement of the performance schedule.

4.2. Perceptions of immersive environments in music festivals

The sample consisted of 200 young people aged between 18 and 24. Regarding gender distribution, 71.5% identified as female and 28.5% as male. Concerning educational attainment, 61% reported having a university education, 14% held vocational training qualifications (intermediate or advanced level), another 13.5% had completed upper secondary education, 10.5% had only completed compulsory secondary education, and 1% indicated other forms of education.

When asked about their knowledge of music festivals, Cala Mijas was the most frequently mentioned (55.73%), followed by Weekend Beach (51.56%). Brisa Festival was recognised by 19.27% of respondents, and Oh, See! Málaga by 14.58%. A further 28.65% named other festivals, while 22.40% stated they were unfamiliar with any.

A total of 75.5% reported having attended a music festival at least once, whereas 24.5% had never done so. Among those with attendance experience, 44% had attended once, 28.5% reported regular attendance, and 3% claimed to attend frequently.

Regarding awareness of the metaverse, 63.5% indicated they had heard of the concept, while 36.5% had not. Specifically, 65.4% of women and 34.6% of men reported familiarity with the term. Based on educational level, 66.1% of university students, 14.2% of vocational education graduates, 11.8% of upper secondary graduates, 7.1% of compulsory secondary graduates, and 0.8% of those with other qualifications reported awareness. Notably, respondents with compulsory secondary education (16.4%) and other studies (2.7%) had lower levels of familiarity. None of the participants had attended a concert held in an immersive environment. Furthermore, 65.5% were unaware that some artists had already performed in virtual environments, while 34.5% were informed of such events.

Table 3. Potential attendees of a music festival in the metaverse

			Would you attend a music festival in the metaverse?			
			Very likely	Somewhat likely	Not at all likely	Total
Have you ever attended a music festival?	Yes	Count	44	50	57	151
		% within Would you attend?	74,6%	82,0%	71,3%	75,5%
	No	Count	15	11	23	49
		% within Would you attend?	25,4%	18,0%	28,7%	24,5%
Total		Count	59	61	80	200
		% within Would you attend?	100,0%	100,0%	100,0%	100,0%

Source: Own elaboration, 2026.

Responding to the question about attending a concert in the metaverse, 29.5% of participants answered affirmatively, 30.5% rejected the idea, and 40% indicated that they might consider it. When these responses were cross-tabulated with prior experience of attending physical festivals, 82% of those who had attended a festival in person considered it "not likely" that they would attend a metaverse concert. However, within the same group, 76.5% indicated that it would be "very likely" or "somewhat likely." Among those who had never attended a physical festival, 25.4% stated that it would be "very likely" for them to attend a virtual event, while 28.7% considered it "somewhat likely." Only 18% in this group rated it as "not likely" (see Table 3).

Table 4. Perceived potential for experience improvement

			Do you think the experience could be improved?			
			Yes	No	DK/NA	Total
Do you have knowledge of the metaverse?	Yes	Count	16	77	34	127
		% within Would it improve?	64,0%	64,2%	61,8%	63,5%
	No	Count	9	43	21	73
		% within Would it improve?	36,0%	35,8%	38,2%	36,5%
Total		Count	25	120	55	200
		% within Would it improve?	100,0%	100,0%	100,0%	100,0%

Source: Own elaboration, 2026.

Regarding whether a virtual experience could enhance a live concert, 60% of respondents answered negatively, while 27.5% were unsure. Only 12.5% stated that an immersive environment would improve the live experience. Among those familiar with the metaverse, 64% believed such environments could enhance the concert experience. In contrast, 64.2% considered that immersive spaces would not offer improvements or expressed uncertainty about their added value (61.8%), as shown in Table 4.

4.3. Potential development of immersive environments in music festivals

The in-depth interviews revealed different perspectives on the current development and future potential of virtual environments in the context of music festivals. Several experts noted that virtual spaces are experiencing significant growth in professional and workplace settings. Specifically, Expert 1 emphasised that virtual reality and augmented reality continue to expand within the festival sector, although they have not yet become established formats. Another expert pointed out that although their use increased during the COVID-19 pandemic, as shown by examples like Tomorrowland's virtual edition, which was positively received, these experiences are currently used mainly as tools for brand or product promotion (Expert 3).

In terms of benefits, several interviewees agreed that implementing actions within virtual worlds offers new promotional opportunities for artists and expands brand storytelling through digital resources that would not be feasible in physical environments. This could generate additional income, foster engagement, and attract new audiences (Expert 2), as well as reach a wider audience (Expert 4), especially when circumstances prevent people from enjoying the physical experience, such as time or space limitations (Expert 5). It could also enable people who were unable to obtain a ticket or who have certain health conditions to enjoy the experience, but still want to engage with the event. Along these lines, the immersive environment could offer a comprehensive experience spanning the pre-event, event, and post-event phases, creating a dynamic atmosphere for attendees (Expert 5).

Regarding limitations, one expert identified the initial investment as the main obstacle: currently, only brands with the greatest financial resources are developing high-quality virtual events. Conversely, festivals with limited budgets can only participate marginally or symbolically. Another interviewee noted that access to the necessary technology is also a barrier, since although some platforms allow navigation via computer, a truly immersive experience requires devices such as virtual reality headsets, which not all users are willing to purchase. Nevertheless, there was consensus among the experts that audience reception will improve as access becomes more widely available and a clear business model emerges, based on product diversification and audience loyalty through new consumption dynamics.

Concerning the physical dimension of festivals, several experts agreed that corporeality remains an essential component of the experience. It was highlighted that many people place particular value on physical interaction (Expert 1) and on the human element that characterises live music events (Expert 2). However, it was also acknowledged that the metaverse could be an option for those unable or unwilling to participate in person (Expert 4). In this regard, one interviewee proposed that immersive environments be configured as complementary formats that do not negatively affect ticket sales for in-person attendance, but instead offer distinct products adapted to the features of each platform (Expert 3). This would also entail rethinking commercial models, with proposals such as differentiated ticket types or dynamic pricing based on the added value of the virtual offering.

Finally, the experts considered that although immersive experiences cannot replace physical ones, they can complement and extend them meaningfully. One of them stressed the need to maintain audience loyalty across editions, as well as to improve the credibility of virtual environments and ensure that users can maintain their identity through their avatar (Expert 5). Technical and content limitations were also mentioned, which could be linked to the lack of a clear monetisation strategy (Expert 5). Regarding its application throughout the festival lifecycle, one interviewee suggested integrating virtual environments before the event to build anticipation through press conferences or line-up announcements, during the festival through augmented reality overlays or interactive maps, and after the event by offering tailored content to reinforce audience engagement.

5. Discussion: meta-inferences and strategic proposals

The absence of references to immersive technologies on the websites of the analysed festivals highlights a strategic opportunity to expand their digital presence and enrich the user experience through more innovative communication approaches. Gallarza et al. (2023) show that virtual experiences enable new forms of interaction that can significantly enhance audience engagement and satisfaction by offering more immersive environments. However, these experiences should not replace the authenticity and emotional connection associated with physical events.

Within this context, the integration of virtual environments should align with each festival's identity and core values, ensuring that virtual experiences complement and extend the existing offer. Creating a dedicated section on the festival website—labelled, for example, "Virtual Experience" or "Festival in the Metaverse"—could help project an innovative image and create new opportunities for collaboration with sponsors interested in technologically advanced initiatives. This section could provide access to immersive experiences, such as virtual stage tours or VR concerts, alongside educational content about the metaverse and feedback forms designed to capture audience perceptions.

Content analysis of Instagram profiles revealed that these festivals prioritised promotional image-based posts, even though videos generated greater engagement. These publications tended to focus on interaction and humanisation.

From a discursive perspective, balancing promotional and informative content with educational material on the cultural and musical applications of virtual worlds could enhance brand differentiation and extend the festival's presence beyond its physical and temporal boundaries. This approach is consistent with the communicative logic of contemporary digital culture.

Gradually incorporating immersive technology-related content into social media could generate anticipation, diversify formats, and position the festival as an innovative cultural player. Such a strategy might include brief video pieces (e.g., livestreams, stories, reels) that simulate virtual spaces, teasers of immersive experiences in development, or participatory campaigns that invite audiences to imagine attending the festival in a virtual environment.

Specific hashtags (e.g., #FestivalInTheMetaverse or #VirtualExperience) could help organise themed content and enhance discoverability. Reels or pinned content showing progress and concepts related to immersive environments would contribute to building a consistent digital narrative (Villena et al., 2026).

Survey results indicate that while most young people have heard of the metaverse, few have attended music events. Nevertheless, a significant proportion expressed willingness to do so, while others remained uncertain. This signals an opportunity for festivals to innovate and diversify their cultural offer by incorporating immersive experiences as complements to live performances. However, this also highlights the need for communication strategies that inform and facilitate the familiarisation process. First, festivals could launch educational campaigns to explain the immersive ecosystem and the opportunities it offers for digital cultural consumption. Accessible outreach materials, such as micro-videos or infographics, could help bridge the conceptual gap between young audiences and virtual spaces (Pizzi et al., 2019). Second, low-commitment entry points like public demos or gamified pilot experiences could encourage experimentation. Empirical studies suggest that users are more likely to accept emerging technologies when exploring them in intuitive, low-risk environments (Flavián et al., 2019). Third, collaboration with culturally credible artists or content creators could foster adoption by linking innovation to familiar references (Hilken et al., 2018).

Furthermore, the survey data allowed for the identification of three audience segments in terms of their perception of the metaverse: "enthusiasts," who are receptive and familiar; "explorers", who express curiosity but also uncertainty; and "resisters," who display scepticism or rejection. For enthusiasts, communication should reinforce their engagement through exclusive content and participatory dynamics that recognise them as part of an

innovative community. Symbolic rewards or early access to immersive experiences could strengthen this group as advocates of the new environment. For explorers, the strategy should address their need for information and accessibility. Producing educational content in non-technical language, complemented by testimonials and simulations, could reduce perceived risk. For resisters, the narrative could emphasise coexistence, presenting the virtual environment as an enhancement rather than a substitute for physical experiences. Research indicates that successfully integrating disruptive technologies often requires a narrative focused on user control, personalised experiences, and continuity with the values of the live event (Bieniek et al., 2024).

Insights from expert interviews emphasise the need for a hybrid communication model that combines physical and virtual experiences. This approach broadens reach and offers alternatives for those unable to attend in person, a necessity highlighted during the COVID-19 pandemic.

Developing personalised, gamified, and exclusive content tailored to virtual environments also appears essential. The metaverse offers unique possibilities for creating narratives and experiences that cannot be replicated in physical spaces. Such innovations can foster deeper audience engagement, strengthen brand loyalty, and attract new segments (Flavián et al., 2019; Pérez, 2022).

Equally, closer collaboration among festival organisers, brands, and technology developers is now more critical than ever. These partnerships could ensure access to equipment and platforms and support the creation of sustainable business models that enable festivals with limited budgets to participate in the metaverse (Paredes Otero, 2023). Such efforts could help overcome economic and technical barriers and facilitate more equitable access.

Continuous evaluation of the user experience is crucial to maintaining credibility and fostering interaction within the metaverse. Collecting and analysing audience feedback from virtual events can pinpoint areas for improvement. Factors such as avatar customisation, quality of social interaction, and fidelity to the physical experience are likely to determine the success of future initiatives.

6. Conclusions

This study explored the current potential for implementing virtual spaces in the context of music festivals. To address Research Question 1 (RQ1): What is the degree of presence and functionality of immersive technologies in the digital communication platforms of music festivals? The first objective (O1) focused on examining the communication strategies employed by festivals in digital environments. Content analysis revealed that, although all festivals under review had platforms optimised for digital visibility and basic user interaction, none featured explicit references to the virtual ecosystem or immersive experiences. This absence suggests a missed opportunity, where creating a visible and permanent section dedicated to immersive environments could serve as a strategic first step in signalling innovation and initiating an educational process to familiarise audiences with immersive environments.

The second research question (RQ2) explored: What level of experience do young people report regarding participation in music festivals held in immersive environments? Accordingly, the second objective (O2) sought to analyse the perceptions and willingness of young audiences to engage with the immersive ecosystem as a space for musical experiences. Data from the questionnaire indicated moderate familiarity with the concept, limited direct experience with virtual concerts, and a segmented audience of receptive, undecided, and resistant profiles. This points to a potential for adoption, conditional upon accessibility and perceived value. Implementing digital cultural literacy campaigns within this framework could significantly reduce uncertainty and encourage participation.

Finally, to address Research Question 3 (RQ3): How should immersive environments be integrated into music festivals' strategic communication planning? The third objective (O3)

aimed to identify viable communication strategies for integrating virtual spaces into music festival environments. In-depth interviews revealed that, while the physical experience remains central, experts recognised the potential to incorporate immersive elements at various stages of the festival cycle, especially during pre-event promotion and post-event loyalty building. However, doing so requires overcoming barriers such as costs, technological limitations, and the absence of compelling narrative frameworks. The experts agreed that successful integration depends on designing specific products and tailoring approaches to different audience segments from the outset, without diluting the distinctive value of immersive formats.

Beyond these contributions, the study has several limitations that should be considered in future research. First, immersive environments remain a nascent cultural and technological phenomenon, and the findings must therefore be interpreted within a fluid and evolving landscape marked by conceptual and operational instability. This limits the generalisability of the results and complicates efforts to anticipate future trends. Second, the analytical framework has been applied exclusively to the music festival sector, which limits its transferability to other contexts. Future research could apply it to other sectors to examine the integration of immersive spaces into their communication strategies.

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