The Investigation of Live Streaming Experience as a Digital Leisure Activity Through the Case of Hellfest

Dijital Boş Zaman Etkinliği Olarak Canlı Yayın Deneyiminin Hellfest Örneği Üzerinden İncelenmesi

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Abstract

The purpose of this study is to reveal the main characteristics of participation in live-streamed music festivals as a new form of digital leisure and to examine in depth how digital platforms transform the music festival experience. In this regard, the audience comments during the YouTube live streaming of Hellfest, which was held on June 27-30, 2024, in Clisson, France, were analyzed by the qualitative content analysis method. As a result of the data analysis conducted within the framework of the Miles-Huberman model; the themes of digital festival experience, music consumption and fan interaction, and the intersection of physical and digital festival experiences were obtained. Within the context of these themes, the research findings show that while live-streamed music festivals are unable to fully replace the experience provided by physical attendance, they offer the potential to reach a wider audience by overcoming geographical and economic barriers. At this point, the re-evaluation of digital festival experiences as a subcultural leisure activity becomes functional in understanding new forms of subcultural participation in the digital age by reinforcing a sense of belonging and community among the audience. Therefore, considering the potential of digital leisure opportunities to create new spaces for social groups becomes crucial.

Keywords: Digital Leisure, Hellfest, Live Streaming, Music Festival, Subcultural Leisure.
JEL Codes: D83, L82, L83, O33, Z10

Özet

Canlı yayınlanan müzik festivallerine katılımın yeni bir dijital boş zaman değerlendirme biçimi olarak temel özelliklerinin açığa çıkarılması ve dijital platformların müzik festivali deneyimini nasıl dönüştürdüğünün derinlemesine irdelenmesi, bu çalışmanın amacını oluşturmaktadır. Bu doğrultuda 27-30 Haziran 2024 tarihlerinde Fransa'nın Clisson kasabasında düzenlenen Hellfest'in YouTube canlı yayını sırasındaki izleyici yorumları, niteliksel içerik çözümlemesi yöntemiyle analiz edilmiştir. Miles-Huberman modeli çerçevesinde gerçekleştirilen veri analizi sonucunda; dijital festival deneyimi, müzik tüketimi ve hayran etkileşimi ile fiziksel ve dijital festival deneyimlerinin kesişimi temaları elde edilmiştir. Söz konusu temalar bağlamında araştırma bulguları, canlı yayınlanan müzik festivallerinin fiziksel katılımın sağladığı deneyimi tam olarak ikame edememesine rağmen coğrafi ve ekonomik engelleri aşarak daha geniş bir izleyici kitlesine erişim potansiyeli sunduğunu göstermektedir. Bununla birlikte dijital platformların sağladığı gerçek zamanlı etkileşimlerin altkültürel toplulukların oluşumu ve ortak festival deneyimlerinin zenginleştirilmesine katkıda bulunarak, geleneksel ve dijital festival deneyimlerinin bütünleşik bir şekilde harmanlanmasını mümkün kıldığı anlaşılmaktadır. Bu noktada dijital festival deneyimlerinin bir altkültürel boş zaman etkinliği olarak yeniden değerlendirilmesi, izleyiciler arasında aidiyet ve topluluk duygusunun pekiştirilmesi sayesinde dijital çağda altkültürel katılımın yeni biçimlerinin anlaşılması açısından işlevsellik kazanmaktadır. Dolayısıyla toplumsal grupların kendilerini ifade etmeleri için yeni bir alan oluşturulması açısından dijital boş zaman olanaklarının taşıdığı potansiyelin göz önünde bulundurulması önemli hale etmektedir.

Anahtar Kelimeler: Altkültürel Boş Zaman, Canlı Yayın, Dijital Boş Zaman, Hellfest, Müzik Festivali.
JEL Kodları: D83, L82, L83, O33, Z10

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Introduction

The digitalization processes, which affect different areas of everyday life in different ways, have led to significant transformations in leisure activities. The proliferation of digital platforms has radically transformed participation trends by making these activities more accessible and interactive. Particularly, events with large participation, such as music festivals, have moved beyond physical boundaries due to technological opportunities and have gained a new dimension in online platforms. These events, which traditionally emphasize physical participation, are now accessible to wider audiences through virtual platforms and offer participants more diverse experience options. In this context, the concept of digital leisure necessitates a rethinking of the activities that individuals engage in within virtual environments, as well as the social consequences of these actions. Music festivals, which have historically been one of the most important venues for social interaction and cultural exchange, are changing in terms of the way they are experienced in the digitalizing world. The experiences of social interaction and cultural participation offered by physical participation in face-to-face music festivals are redefined and gain a different meaning on digital platforms. The participation of viewers in live chats, instant reactions to performances, and virtual community-building processes create a new perspective in the context of digital leisure.

The process of transforming leisure activities into digital forms has significantly impacted how people access and engage in these activities, presenting both opportunities and challenges in reshaping the landscape of cultural events and subcultural participation, particularly in the context of music festivals. In other words, digital leisure activities are important in terms of the quality of the experience that individuals obtain in virtual environments, as well as the effects of this experience on social interactions. Digital entertainment, as a rapidly evolving form of leisure, has fundamentally altered how individuals engage with cultural events like music festivals (Holt, 2020; Bennett & Rogers, 2016). Subcultural participation, traditionally rooted in physical gatherings, is currently being redefined through digital platforms that offer new avenues for community building and identity expression (Pietrzak-Franger et al., 2023; Hassan, 2021). At this point, music festivals offer a new form of digital subcultural participation by redefining the way participants spend their leisure time on digital platforms. The way in which audiences spend their leisure time is transformed by music festivals that are accomplished through the use of online platforms, which also leads to the establishment of new digital communities.

The digital transformation of music festivals represents a paradigm shift in how audiences engage with live music events and cultural experiences. A more nuanced comparison between digital and traditional music festival experiences reveals both the limitations and unique affordances of virtual participation (Rendell, 2021; Onderdijk et al., 2021). While digital platforms cannot fully replicate the sensory immersion of physical attendance, they offer unprecedented accessibility and novel forms of interaction that complement and extend the festival experience (Wang, 2021; Fraser et al., 2021). These digital innovations are not only transforming the nature of music festivals but also challenging our understanding of authenticity and community in subcultural spaces, necessitating further research into the long-term implications for cultural identity and social cohesion. Addressing the phenomenon of digital leisure within the framework of music festivals allows us to understand the sociocultural effects of digital platforms by comparing traditional and virtual forms of leisure participation. Therefore, this research aims to explore the ways in which virtual participation interacts with the traditional live music experience and to explore and reveal unique patterns of cultural participation, social interaction, and community building in digital leisure environments.

The limited examination of the transformations of music festival experiences through virtual participation and live streaming platforms in previous studies constitutes the main rationale for this research. In this context, there is a lack of a comprehensive perspective in the literature on how audience participation takes place in these digital environments and how the experiential dimensions of online music communities are shaped. As a result, the need to uncover the ways in which virtual festival participation interacts with the traditional live music experience and the unique patterns of cultural participation, social interaction, and community building in the digital leisure environment gains importance. In other words, this research is shaped on the basis that virtual festival participation represents a new form of subcultural participation that challenges traditional understandings of live music experiences and reshapes leisure activities in the digital age through the case of the live streaming of Hellfest held in 2024 on the YouTube platform. Furthermore, this research reveals that the digital format of the festival has led to the emergence of various online music communities that are characterized by their own norms, behaviors, and modes of interaction (Ghaffari et al., 2024: 13230). These virtual communities are not only complementary to the traditional concept of the festival experience but also extend and redefine its scope, thereby offering new opportunities for fan engagement and subcultural participation (Webster, 2014: 33). By analyzing audience comments, the study aims to contribute to the understanding of how digital technologies are reshaping music consumption, fan experiences, and the nature of live

music events in the contemporary media environment.

The choice of Hellfest as the subject of this study is based on its unique approach to digital engagement and its significant position within the global metal music scene. Since 2006, Hellfest has grown into one of the largest metal festivals, showcasing a diverse range of metal subgenres, thereby reflecting the genre's rich musical history and cultural evolution. From a social history perspective, Hellfest represents the culmination of decades of metal music's development, from its origins in working-class communities to its current status as a global cultural phenomenon, encompassing various subcultures and ideologies (Weinstein, 2000; Kahn-Harris, 2007). The festival's embrace of live streaming technology not only expands access to metal music but also offers a unique lens through which to examine the socio-psychological dynamics of metal fandom in the digital age (Guibert et al., 2021; Holt, 2020). Metal music, characterized by its intensity and often transgressive themes, provides a powerful outlet for emotional expression and identity formation among its enthusiasts, fostering a strong sense of community and belonging (Riches et al., 2014; Schulz, 2022). Moreover, the virtual participation enabled by Hellfest's digital platform allows for an examination of how metal fans negotiate their subcultural identities and social connections in online spaces, offering insights into the evolving nature of music fandom and community.

Conceptual Framework

The digitalization of music festivals has profoundly transformed cultural participation, necessitating a deeper theoretical examination of its effects within the context of digital leisure and virtual community formation (Aleksiev, 2011: 75; Hesmondhalgh & Meier, 2018, p. 1555 Mattar, 2003: 293). Theories exploring the impact of digitalization on cultural participation, such as the concept of "liveness" in digital environments, offer valuable insights into how live-streamed festivals attempt to recreate the immediacy and authenticity of physical events while leveraging the unique affordances of virtual spaces (Auslander, 2012: 3; Eriksson et al., 2020: 1-2). Comparative analyses of digitalization's impact across different music genres and festival types could illuminate genre-specific patterns of online engagement and reveal broader trends in digital cultural participation (Borges et al., 2020; Chen & Lei, 2021). Cross-genre comparisons might also elucidate how various subcultures adapt to and utilize digital platforms, potentially uncovering innovative practices that could inform future festival design and digital engagement strategies (McKenna, 2022: 143-144; Schaap et al., 2023: 298). By situating the analysis of live-streamed music festivals within these theoretical

frameworks and comparative approaches, researchers can develop a more nuanced understanding of how digitalization is reshaping cultural experiences and subcultural identities in the contemporary media landscape.

Live streaming, which has become an important leisure activity in recent years, has radically changed the nature of music festival experiences. This change, which has emerged in the context of the proliferation of high-speed internet and mobile technologies, has made real-time and remote participation possible in events that previously could only be attended physically (Holt, 2020: 234-235). At the same time, this digital transformation, which has redefined the boundaries of music consumption, has enabled unprecedented access to performances and led to the emergence of new forms of audience participation (Bennett & Rogers, 2016: 141-144). In this context, live streaming technology enables individuals who are unable to physically attend music festivals to participate virtually, thus enabling these events to transcend geographical restrictions (Dahl, 2021: 58; Rendell, 2021: 1097). In addition to diversifying access to live music, this shift creates a sense of community among remote audiences, enabling new ways of interaction and participation (Vandenberg et al., 2021: S144). Blurring the lines between live and mediated experiences, digital platforms challenge traditional notions of presence and participation in music events (Charron, 2017; Danielsen & Kjus, 2019: 722; Schmidt, 2021: 13). Additionally, it is stated that live streaming allows festivals to adapt to unpredictable situations, such as the global pandemic, ensuring their continuity and even expanding their audience base (Van Winkle & Bueddefeld, 2020: 7). Therefore, live streaming is becoming an integral part of the contemporary music festival landscape, offering a complementary medium that enhances both access and quality in music consumption (Naveed et. al., 2017: 12-14). This technological transformation appears to be reshaping the music festival ecosystem, offering new possibilities for artistic participation, and redefining the nature of live music experiences in the digital age.

Individuals in musical subcultures are alienated by being subjected to processes such as exclusion, marginalization and labeling by dominant groups in social power relations (Güven, 2017: 83). Philips & Cogan (2009: 92-93) underline that despite being marginalized by the mainstream media, metal music can be directly experienced by members of this subculture through festivals. In this context, the importance of subcultural festivals stems from their role as a subcultural space that celebrates and supports the diversity and richness of the subcultural structure, as well as fosters a sense of community and identity among participants (Mall, 2016; Xu, 2023). Hellfest, organized since 2006 in Clisson, France, has become one of the largest and most important metal music

festivals in the global music scene, with more than 180,000 people from all over the world attending each year, bringing together various metal music subgenres (Guibert & Sklower, 2011: 101; Pulh, 2022: 67). Through the strategic adoption of live streaming technology, Hellfest has expanded its reach, enabling audiences around the world to virtually participate in the experience and allowing fans who are unable to attend the festival in person (physically) to be engaged with the festival remotely (Guibert, 2020: 166; Guibert et al., 2021: 243). The proliferation of digital platforms is not only increasing the impact of events, but also transforming the traditional festival experience by enabling digital participation through real-time interactions (Holt, 2020: 234-235). Hellfest exemplifies the evolution of music festivals in the digital age by integrating live streaming into the event process, making it a significant example for examining the effects of live streaming on audience participation and festival dynamics.

The theoretical underpinnings of this study necessitate a comprehensive exploration of the sociological concept of "leisure" as it pertains to digital environments. From a sociological perspective, leisure is not merely "free time", but a socially constructed phenomenon through which individuals engage in activities that reflect and reinforce social norms, values, and power structures within society (Adam, 2018: 358; Aytaç, 2004: 115; Jensen & Guthrie, 2006: 6). Leisure, particularly in the context of virtual music festivals, emerges as a multifaceted social construct that intertwines individual and collective experiences, fostering identity formation and social connections, while music transcends mere personal enjoyment to become an integral part of our social being and a vital conduit for human connection, challenging the beliefs of Aristotle's contemporaries (Cross, 2005: 114; Lehman, 2021: 274; Spracklen, 2015: 82). It is crucial to articulate a nuanced definition of "culture" and, more specifically, "subculture" as they relate to the digital music festival experience. Culture can be defined as the shared values, beliefs, behaviors, and artifacts that characterize a group, shaping their identity and interactions within society (Alhadar et al., 2024: 84; Hofstede, 1984: 82). Subcultures, in this context, can be conceptualized as distinct groups within the broader cultural landscape that share common values, practices, and modes of expression, particularly in relation to music consumption and community formation (Hodkinson, 2015: 636; Mahdi, 2018: 21-22). The notion of "subcultural identity formation" emerges as a key theoretical lens through which to examine the ways in which participants in digital music festivals construct and negotiate their identities within these virtual spaces. This process of identity formation is intrinsically linked to the shared experiences, rituals, and symbolic interactions that

occur within the digital festival environment (Riches, 2012: 36; Venkatesh et al., 2015: 68-69). These conceptual underpinnings provide a robust foundation for examining how digital music festivals, especially within metal subcultures, are redefining notions of leisure, cultural engagement, and identity construction in an increasingly virtualized musical landscape.

Methodology

The aim of this study is to examine audience participation as a leisure experience by comprehensively analyzing the comments of the viewers who participated in the live streaming of Hellfest held between 27/06/2024-30/06/2024 on the YouTube platform. This research focuses on exploring audience participation in the context of digital leisure, including the patterns of interaction among the audience and the content, the motivations underlying their participation in the live chat, and their real-time reactions to the performances. In this regard, it explores how the comments section contributes to community building among virtual participants, as well as the effects of visual factors and interactions on participation and viewing tendencies. Through the analysis of these aspects, the research seeks to understand how the live streaming experience can be compared to physical participation in a festival as a leisure activity. Overall, this study aims to provide new insights into the key characteristics of participation in live-streamed music festivals as a new form of digital leisure and to contribute to the understanding of how digital platforms are transforming the music festival experience.

Nethnographic research methodologies offer a valuable approach to investigating the complex dynamics of digital music festival participation and subcultural identity formation (Csiszár, 2016: 15; Lu, 2024: 76). By employing these techniques, researchers can gain rich, contextual insights into the lived experiences of festival participants, their interactions within virtual spaces, and the meanings they ascribe to these experiences (Kozinets, 2010: 96). The concept of "digital ethnography" becomes particularly relevant in this context, as it allows for the systematic observation and analysis of online behaviors, interactions, and cultural practices within the virtual festival environment (Pink et al., 2016: 102). This methodological approach enables a deep exploration of how subcultural identities are negotiated, performed, and reinforced through digital means. Furthermore, nethnographic research can illuminate the ways in which virtual participation in music festivals contributes to the formation and maintenance of subcultural communities, transcending geographical boundaries (Delli Paoli & D'Auria, 2021: 247; Nedungadi et al., 2017: 119). By adopting an neth-

nographic perspective, this study aims to provide a nuanced understanding of the sociocultural dimensions of digital leisure activities and their implications for subcultural identity formation in the context of online music festivals.

This study adopts a qualitative content analysis approach in line with the in-depth analysis of audience comments and focuses on revealing the deep and complex meanings constructed through audience participation. The qualitative content analysis approach is utilized to code and analyze data, as it systematically identifies the meaning of qualitative data and allows for a detailed examination of the themes and patterns expressed by the audience, in line with netnography's reliance on the observation of textual discourse (Kozinets, 2002: 64; Hsieh & Shannon, 2005: 1278). This approach allows for the exploration of both explicit content (directly expressed words) and latent meanings (observed expressions or interpretations of sentences), enabling the analysis of audience emotional reactions, interaction processes, and the construction of collective festival experience in the digital environment (Mazzi, 2011: 236). In this context, the study follows an inductive approach that allows themes and categories to emerge from the data itself rather than the application of predetermined frameworks (Elo & Kyngäs, 2008: 109). This perspective is particularly useful for exploring the complexity of online audience engagement in the context of live streaming music festivals, where existing theories struggle to fully explain the evolving nature of digital leisure experiences. Therefore, through the analysis of comments, this study aims to provide detailed insights into the nature of audience interactions and the processes of community building that are occurring online.

The qualitative content analysis of online interactions becomes highly functional in terms of revealing new perspectives on individuals' meaning and community construction processes in virtual environments, considering the increasing importance of digital texts in understanding contemporary social phenomena (Simeonova & Galliers, 2023: 69). In this regard, this methodological choice is particularly appropriate, given the study's focus on revealing new perspectives on individuals' meaning-making and community construction processes within virtual environments. The data collection process involved a comprehensive examination of viewer comments from eight YouTube live streaming videos of Hellfest 2024 performances, ensuring a robust representation of the digital festival experience. The selection of comments was guided by their relevance to the research objectives, with a particular emphasis on expressions of digital festival experience, music consumption patterns, fan interaction dynamics, and

comparative analyses between physical and digital attendance modalities. MAXQDA Analytics Pro 2024 program was utilized for data management, coding, and analysis, facilitating a rigorous and systematic approach to identifying emergent themes and patterns within the framework of the Miles-Huberman (1994) data analysis model. This tripartite model, comprising data reduction, display, and conclusion drawing, provided a structured yet flexible framework for a nuanced examination of viewers' interactions during the live streaming event. The coding process was conducted iteratively, employing a constant comparative method, with initial codes being refined and categorized into broader thematic constructs through collaborative discussions, thus enhancing the interpretive trustworthiness of the findings.

The concept of data saturation, a critical methodological consideration in qualitative research, was rigorously applied in this study. Data saturation refers to the point at which new information ceases to emerge and further coding becomes infeasible (Fusch & Ness, 2015: 1408; Hagaman & Wutich, 2017: 25; Sebele-Mpofu, 2020). In the context of this research, where data collection and analysis were conducted concurrently by the researcher, data saturation was achieved upon examining the 2986 comments of 8 videos (Table 1). The analysis process was terminated when it became evident that the codes derived from subsequent comments were reiterations of previously identified themes, and no novel codes could form new categorical constructs (Fusch & Ness, 2015: 1409; Kyngäs, 2020: 8; Urquhart, 2013: 194). To enhance the trustworthiness of the findings, the codes associated with the categories, derived from viewer expressions in the live streaming comments, were compared with previous studies and presented within the framework of the themes created over the categories. While acknowledging the limitations inherent in focusing on a single festival (Hellfest) and a specific musical genre (metal), this constraint is critically examined within the broader context of the study's implications and generalizability. Notwithstanding these limitations, the rich, contextual data obtained through this methodological approach provides valuable insights into the digital leisure experience of live-streamed music festivals. This contributes substantively to the broader scholarly discourse on how digital platforms are transforming music consumption practices and subcultural participation in the contemporary media landscape, offering a nuanced understanding of the evolving dynamics between virtual and physical modes of cultural engagement.

To provide a more illuminating presentation of the data, the analysis focused on the nuanced ways di-

Table 1. Reviewed YouTube Live Streaming Videos

Channel Name	Video Title	Video Link
ARTE Concert	Accept - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=-NeiZWnNvhEA
ARTE Concert	BABYMETAL - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=iM-puhm_M01w
ARTE Concert	Cradle of Filth - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=-GKTKke-nYQk
ARTE Concert	Corey Taylor - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=-cHqlYxMnfJA
ARTE Concert	Emperor - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=u-B0kYXbBaBA
ARTE Concert	Machine Head - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=-30F4UEmfgg0
ARTE Concert	Megadeth - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=qNp9TtRWjHk
ARTE Concert	Suicidal Tendencies - Hellfest 2024 – ARTE Concert	https://www.youtube.com/watch?v=EP-gAxGD_Yns

gital platforms are transforming music festival experiences and subcultural participation (Lizzo & Liechty, 2022; Wang et al., 2024: 231). By adopting a netnographic perspective, this study aims to provide a nuanced understanding of the sociocultural dimensions of digital leisure activities and their implications for subcultural identity formation in the context of online music festivals. Negative comments were not solely categorized as dislikes but were subjected to a thorough content analysis, revealing critiques of sound quality, performance issues, and technical difficulties. The qualitative content analysis approach is employed to code and analyze data, as it systematically identifies the meaning of qualitative data and allows for a detailed examination of the themes and patterns expressed by the audience, in line with netnography's reliance on the observation of textual discourse. This granular examination of audience feedback provided valuable insights into the challenges and expectations associated with virtual music events. The study also considered the broader context of each band's fanbase and subcultural significance within the metal community, offering insights into the complex dynamics of online audience engagement (Allett, 2010: 179-181; Rendell, 2021: 1104). This contextual analysis enabled a more nuanced understanding of how different subcultures within the metal genre interact and express themselves in digital spaces. By focusing on these specific aspects, the research aims to provide a more comprehensive understanding of how digital leisure opportunities are creating new spaces for social groups to express themselves and interact within the context of online music festivals. This holistic approach allows for a deeper exploration of the ways in which techno-

logy is reshaping cultural practices and social interactions in the digital age, ultimately contributing to the growing body of literature on digital culture and subcultural studies.

Findings and Discussion

Digital Festival Experience

In this section of the study, audience comments regarding the digital festival experience are examined. In this regard, data on how virtual participation is shaped, the meanings attributed to community building by the audience, and the technological elements during live streaming are analyzed
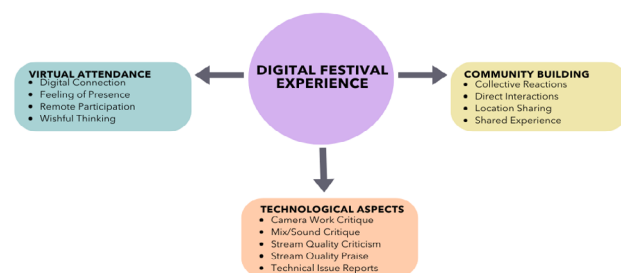

Figure 1. Categories and Codes of the Digital Festival Experience Theme

Virtual Attendance

The profound changes brought by technological advancements at all phases of festival events are also significantly transforming the ways participants explore the festival environment, interact, and share their experiences (King, 2021: 99; Lee et al., 2022:

1153). The participation of individuals who are unable to physically attend festivals through online platforms is referred to as virtual participation (Estanyol, 2022: 656; Riga, 2022: 10). The ways music festivals are experienced in the digital age are also undergoing a significant transformation due to virtual participation opportunities. This study reveals how the experience of virtual participation is perceived by audiences participating in the festival through live streaming. In this context, audience comments reflect various emotions, expressing the feeling of "being there" or participating remotely. For example, a viewer humorously conveys the feeling of being physically present at the festival by referencing the frequently muddy ground at Hellfest due to climatic conditions, using the phrase "Won't fall in mud today." Similarly, the comment "Monstrueux!! Une ambiance de tarés!" (Monstrous!! A crazy atmosphere!) shows that the viewer experiences the festival atmosphere "as if they were there." In the context of Goffman's (1959) concept of "presentation of self," the viewers' comments demonstrate how individuals engage in impression management and perform their festival identities in the virtual space, adapting their self-presentation to maintain the illusion of physical presence and shared experience despite the digital medium. The comment "C'est pas mal d'enfin entendre sa voix, le mastering n'était vraiment pas bon sur place" (It's nice to finally hear his voice, the mastering was really not good on site) emphasizes the advantages of remote participation by stating that the live streaming sound quality is better than physical participation. The comment "I was there and once more their concert was amazingly powerful and epic! Emperor[1] rules" expresses that the viewer continues to sustain the experience of being physically present through live streaming. As Garay and Morales (2020: 96-97) point out, festivals now encompass both physical and virtual spaces because social media enables the formation of virtual communities around festival brands. At this point, live streaming comments reveal how audiences perceive their loyalty and experience with the festival through virtual participation.

Integration of digital platforms into festival environments is important not only for increasing audience participation, but also for enriching the shared common festival experiences among participants (Stevens, 2018: 20; Van Hemert & Ellison, 2022: 538). At this point, analyzing festival participants' social network participation patterns provides important

information for understanding the sustainability of digital music festival communities (Lei & Li, 2021: 27). When examining audience comments, it is seen that the advantages provided by the opportunity to participate in the festival remotely are expressed in different ways. Comments like "Circle pit"[2] and "Caught in a mosh" reflect the desire of the audience to participate in the energy of the festival even from their homes. The comment "Lesssgooooo-oo" expresses the excitement and participation of the audience in the live streaming. Comments like "Wish I was there!" and "Wish I could have been there... this is second best!" express the desire of the audience to be physically present and convey that the live streaming partially meets this desire. Additionally, comments like "Thanks Arte for the post - great band" and "Thank you Arte for all of us around the world who couldn't be there." explain the gratitude of the audience to Arte for making the live streaming of the festival possible. As Pessina (2023: 62) points out, virtual environments are quite effective in developing a sense of belonging in music and festival communities, especially due to the immersive visual and auditory experiences they offer. At this point, audience comments highlight the benefits of remote participation opportunities, indicating that virtual participation creates a sense of physical participation. These comments, which reveal the dynamic relationship between physical and virtual participation, also demonstrate that virtual participation offers a new and interactive audience experience that expands the traditional boundaries of music festivals.

Community Building

Pietrzak-Franger et al. (2023: 2) highlight the potential of virtual platforms in promoting community[3] building. Therefore, digital spacescan serve as places where people with common interests can come together. In this study, community building refers to the process of creating a virtual sense of togetherness through interactions and shared experiences among viewers on live streaming platforms. When examining comments, it is observed that direct interactions among viewers play a significant role in community building. For example, the comment "Nice!" initiates a conversation by directly responding to another viewer. The comment "BD en 2 hrs" (in 2 hours) encourages interaction by providing direct information in response to a question. The

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[1] Emperor is a Norwegian symphonic black metal band formed in 1991 in Notodden, known for themes of divination, nature, mythology, individualism, and mysticism, with an active status and currently signed to Candlelight Records (metal-archives.com).

[2] Circle pit is a lively concert event where a large group of people run in a circular formation, usually holding onto each other to maintain balance and adjusting their speed in sync with the tempo of the music (Surmanski, 2016: 117).

[3] The formation of these online communities challenges traditional notions of "community" by enabling real-time interactions and shared experiences that can rival the intensity of physical gatherings, albeit in a different modality (Habibi et al., 2014: 127; Häkkänen-Nyholm, 2021: 699). However, the ambiguity surrounding the concept of community in digital contexts necessitates further exploration, particularly in how these virtual bonds translate to offline social capital and subcultural identity formation among metal music fans.

comment "Metallica will not be transmitted" enhances interaction by directly informing a user that the Metallica performance will not be broadcast. The comment "Dear Emperor's fans, tell me please what he said 0:10 here:..." encourages interaction by making a specific request to Emperor fans. In this way, expressing shared excitement and passion, which is another important aspect of community building, is achieved through comments that strengthen the feeling of sharing the concert experience, even in a virtual environment. On the other hand, the comment "Pour le concert là ou pour la France / Belgique lundi soir à 18h ? :D" (For the concert there, or for the France/Belgium match on Monday evening at 6 PM? :D) initiates interaction by asking another user a completely different question during Cradle of Filth[4]'s performance. As Rendell (2021: 1103) points out, viewers often participate in interactions in the chat sections of the websites where performances are broadcast (next to or below the videos) during live streams. The above comments, which highlight the importance of direct interaction among viewers for community building, also demonstrate that these interactions reinforce the sense of community.

Lizzo & Liechty (2022) argue that virtual communities have the potential to enhance leisure experiences and strengthen the feeling of belonging. In general, viewer comments convey how online communities form during live streaming and how these communities become more interactive. The comment "Good concert everyone!" reinforces the sense of togetherness by emphasizing the shared experience among viewers. Similarly, the comment "Merci beaucoup Arte for sharing this with us!! Rock on, greetings from Barcelona" expresses gratitude to Arte while also sharing the viewer's location, thereby strengthening the sense of community. This comment, which shows an effort to establish a connection based on geographical location, strengthens the bonds among community members by encouraging communication among viewers. The geographical distribution of social media users is significant because it facilitates the gathering of nearby people, who may then strengthen their sense of community through shared experiences and a stronger sense of belonging (Liu & Huang, 2014). In the comment "Hello, à tout les métaleux et les metaleuses, je voulais remercier Arte pour tout les lives du Hellfest" (Hello, all metalheads, I wanted to thank Arte for all the Hellfest live streaming), the viewer greets all viewers and reinforces the sense of community by emphasizing the shared appreciation for the live streaming. The comment "OMG thank you for up-

loading this" reflects the shared anticipation and excitement among viewers by expressing common gratitude for the uploaded content. The comment "Hi everybody! We finish this 1st day at Hellfest with 3 simultaneous livestreams! Here we are, team Cradle of Filth!" develops a sense of community by referring to the togetherness among viewers due to live streaming opportunities. The development processes of virtual communities that evolve during live streaming can be observed through viewer comments, which reveal how communication and shared experiences among viewers strengthen the sense of togetherness. These actions, carried out by individuals within online communities via social media, reflect the dynamic nature of viewer participation in digital environments (Gallant & Boone, 2021: 184). Consequently, by engaging in online exchanges, viewers foster a profound sense of community based on common interests and passions, regardless of their physical distance.

Technological Aspects

Virtual tools are taking the place of conventional face-to-face interactions in modern leisure activities, according to Oppenbergerová and Stoffová (2022: 151), who discuss the incorporation of digital technologies into the planning of leisure. In this context, the accessibility of virtual events has significantly increased with the development of live streaming technologies. Therefore, the technological elements that shape the leisure experience of viewers are among the critical factors determining the success of the event. Upon analyzing comments pertaining to viewers' responses on broadcast quality and technical issues, it becomes evident that the quality of the broadcast has a substantial influence on viewer satisfaction. Viewer comments include various evaluations, especially related to video and audio quality. For example, the comments "great audio" and "Sound quality is good!" provide a positive assessment of audio quality, whereas the comment "High quality picture, high quality sound, amazing" praises both visual and auditory qualities. Similarly, the comment "The sound and visual are immaculate" serves as a favorable assessment of the audio and video quality, highlighting the exceptional streaming experience. The comment during Machine Head[5]'s performance, "The Band sounds super tight and the recording is superb. Shout out to the sound guys for this one", praises both the band's performance and the quality of the sound recording, thus appreciating the work of the sound engineers. Wang (2021:

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[4] Cradle of Filth is a British extreme metal band formed in 1991 in Ipswich, Suffolk, known for their evolving sound from death metal to symphonic black metal and extreme gothic metal, with themes including occultism, vampirism, erotica, romance, mythology, horror, and blasphemy, currently active and signed to Napalm Records (metal-archives.com).

[5] Machine Head is an American groove/thrash metal and nu-metal band formed in 1991 in Oakland, California, known for themes including violence, domination, respect, inner struggles, politics, society, and anti-religion, currently active and signed to Nuclear Blast (metal-archives.com).

56) states that the visual and auditory tools used in online live-streamed music events create immersive environments for viewers. The above comments emphasize the favorable assessments of viewers on the quality of the broadcast, underscoring the significance of technical components in live streaming.

In order to ensure high-quality live streaming, providing videos that are continuously accessible, quickly initiated, and played smoothly without any interruptions is among the primary elements (Sitaraman & Barton, 2006: 5). The focus that viewers place on technical faults and shortcomings in broadcast quality highlights the potential detrimental effects these flaws can have on the viewer's experience. In this context, the comment "Bad video quality" directly criticizes the video quality, while the comment "Somebody tell the cameraman to zoom on to lead guitarist while he's performing" shows a criticism due to the camera not focusing on the right spot during the performance. The comment "Crappy audio volume" expresses a complaint about the low audio volume, whereas the comment "Terrible mix, great performers" praises the band's performance but indicates issues with the audio mix. The comment "The audio mix for this video is mediocre." is another critical evaluation that highlights issues with the audio mix. In order to decrease feelings of loneliness and increase a sense of community, event planners and/or artists should set up internet broadcasts in a way that encourages physical proximity and social interaction (Onderdijk et al., 2021). In general, viewer comments include both positive and negative evaluations of streaming quality and demonstrate how technical elements affect the viewer experience. Evaluating these comments emphasizes the need for continuous improvement in these technological applications and provides important insights for offering a smoother and more satisfying experience at future virtual events.

The digital festival experience transcends the boundaries of traditional music events, offering a new form of leisure participation and enabling viewers to experience a strong festival atmosphere and a sense of community despite physical distances. Virtual participation eliminates geographical barriers, allowing for the formation of a global audience, and clearly demonstrates the potential of digital platforms to transform music consumption and leisure experiences. This transformation creates a shared experience and sense of community among viewers, offering a new form of interaction that goes beyond traditional festival participation. Technological elements play a critical role in shaping the digital festival experience, and in this context, it is observed that streaming quality and technical issues directly affect user satisfaction. The variety of positive and negative feedback highlights how leisure experiences in digital environments differ based on individual perceptions and technical conditions. Viewer comments demonstrate how live streaming enhan-

ces the Hellfest experience by complementing and expanding the physical festival, serving as an important indicator of the opportunities and added value that digital leisure experiences offer to viewers. In conclusion, the digital festival experience provides important insights into the potential of music events in terms of leisure evaluation, due to the blending of traditional and innovative elements.

Music Consumption and Fan Interaction

In this section of the study, audience comments regarding the digital festival experience are examined. In this regard, data on how real-time music criticism is shaped, music information sharing among audiences, and fan behavior in the digital environment are analyzed.
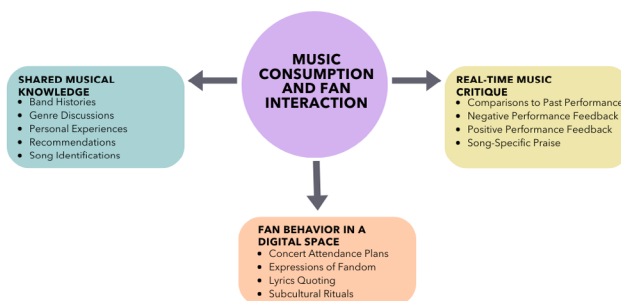

Figure 2. Categories and Codes of the Music Consumption and Fan Interaction Theme

Shared Musical Knowledge

The trends toward personalization, mobility, and connectivity in music consumption are becoming more prevalent in accordance with technological advancements (Hesmondhalgh and Meier, 2018: 1566). Consequently, the constant transformation of music culture through digital platforms results in the modification of individuals' music experiences via these platforms, thereby introducing novel aspects to musical interaction. When examining viewer comments, it is observed that the interaction carried out through the sharing of music knowledge reflects the interactive and information-focused nature of the digital festival experience. The sharing of music knowledge, which expresses the exchange of information about bands, songs, and subgenres of metal music, reveals the viewers' desire to contribute to the music culture. These comments contribute to the enrichment of knowledge within the subcultural community by facilitating the sharing of important information and personal experiences related to music. For example, during Suicidal Tendencies[6'] performance, the comment "since 1981" indicates the band's founding year, while the comment "93 Vincennes… Trujillo was on bass with suicidal tendencies… few minutes before Metallica Black album tour" shares details about a specific concert, its location, and in-

formation about the band's former bassist Robert Trujillo (1989-1995). In the comment "First time I saw them live was 1984", both a personal experience and the date of one of the band's past concerts are shared. Another viewer emphasizes the importance of the Accept[7] album released in 1985 with the comment "Started listening to Metal with the Metal Heart Album Back in 1985. Greetings from Germany." The comment "1984 I watched them together with AC/DC and Ozzy Osbourne," where the viewer shares their past concert experiences, also provides information about the details of a concert held in 1984. The widespread adoption of live streaming technology has allowed music festivals to evolve into immersive experiences that incorporate interactive entertainment and social bonding, extending beyond conventional online and mobile platforms (Sher & Su, 2023). Within this particular framework, the aforementioned comments illustrate how individuals enhance their digital leisure experiences by exchanging music-related information and nostalgic memories.

Being defined as a "metal fan" significantly shapes individuals' social identities, while it is noted that subgenres like black and death metal represent the (subcultural) metal community more authentically, whereas genres like gothic and industrial metal are emphasized as having less representative qualities (Dieckmann et al., 2016: 354; Schulz, 2022: 49). Comments regarding the subgenres of metal music during live streaming reflect viewers' motivations for exchanging subcultural information. In the comment "Crossover thrash mes frères" (Crossover thrash, my brothers), the music performed by Suicidal Tendencies is categorized as "crossover thrash," while the comment "Hardcore 4 life" expresses a passion for the "hardcore" genre for the same band. On the other hand, in the comment "Good old thrash metal," the music of Accept is classified as "thrash metal," while in the comment "classic metal," it is defined differently as "classic metal." Similarly, the comment "Cradle of Filth - melodian metal" attempts to define the music genre of Cradle of Filth. YouTube, as the most widely used platform for sharing video content online, also serves an important promotional function for artists (Montoro-Pons, 2023: 2954). In this context, viewers' comments about the subgenres and music definitions of metal music reveal how the sharing of music knowledge occurs within the community and the impact these bands have on the community.

Real-Time Music Critique

Emphasizing the significant role of real-time communication technologies in shaping leisure experiences, Korolenko (2021: 78) asserts that with the widespread use of these technologies today, they have become more integrated into individuals' daily lives. Social media platforms facilitate real-time information exchange, allowing all stakeholders, especially artists, to receive instant feedback on shared content, thus enabling dynamic fan interactions (Brasseur, 2021: 26; Rashid, 2023: 68). In this respect, it is observed that the ability of viewers to evaluate and critique stage performances in real-time has led to the increasing importance of instant feedback during live streams. Viewer comments, which include opinions about performances, showcase a variety of manifestations of music criticism. For instance, Suicidal Tendencies' live performance receives clear praise in the comment "ST are one of the best live bands ever." The comment "Mike never lets us down!!" provides an evaluation of vocalist Mike Muir's consistent performance with the same band. Similarly, the comment "Mark Tornillo ripping it right from the start" offers a positive evaluation of the performance of Accept's vocalist. The comment "Machine Head consistently put on one of the best live performances of any band in metal." indicates that the band consistently delivers excellent live performances. These comments show that viewers positively evaluate performances in their real-time feedback.

On the other hand, viewer comments that express negative opinions regarding band performances constitute a significant aspect of real-time music criticism. The comment "The mix is horrible. One guitar is way louder than the other one." indicates that the performance is negatively affected due to issues with the sound mix. In the comment "It's painful to watch when a vocalist can't sing his part and suffocates on stage," the vocalist's performance is harshly criticized, and in the comment "Ça chante quand même super mal, plus de voix et le guitariste est super faux... sérieusement là un des pires live de Suicidal" (The vocals are really bad, there's no voice, and the guitarist is really off... seriously, one of the worst live performances from Suicidal), the vocalist's performance is also negatively evaluated, along with criticism of the guitarist's performance, expressing that the band was generally disappointing. Similarly, the comment "Probably one of the worst live performances I've ever witnessed in person." conveys a general sense of disappointment caused by the performance. Live streams provide real-time communi-

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[6] *Suicidal Tendencies is an American thrash metal/crossover and hardcore punk band formed in 1981 in Venice Beach, Los Angeles, known for themes including life, politics, society, angst, comedy, humor, street life, and struggles, currently active and signed to their own label, Suicidal Records (metal-archives.com).*

[7] *Accept is a German heavy metal band formed in 1976, originally from Solingen, North Rhine-Westphalia, now based in both the United States and Germany, known for themes including social issues, sex, rock'n'roll/metal, fantasy, and war, currently active and signed to Napalm Records (metal-archives.com).*

cation between users and content creators (in the comment sections), taking interaction beyond traditional blog posts (Dorr, 2023: 30). This situation is exemplified in the above comments, where viewers provide negative feedback containing criticisms of various aspects of the performances. From a broad standpoint, the comments offered by viewers demonstrate that rapid feedback makes it possible to conduct real-time evaluations of performances.

Fan Behavior in a Digital Space

Music streams on YouTube, especially during the COVID-19 pandemic, have contributed to the establishment of strong bonds among viewers and the development of emotional support, thereby enhancing social cohesion, intercultural understanding, and community resilience (Fraser et al., 2021). The shared passion of metal music fans for social bonding reflects the strong sense of community within the subculture and also demonstrates how metal environments can support the sustainability of relationships formed among fans (Hassan, 2021: 80; Olsen et al., 2020: 367). Fan behavior in digital environments reveals how they express their loyalty to specific bands and metal music in general. In this context, fans' loyalty to bands and the subculture is expressed in various ways in viewer comments such as "St4life!!," a classic cheer expressing lifelong loyalty to Suicidal Tendencies, and "Accept goats," where Accept is declared "the greatest of all time" with strong admiration. Similarly, the comment "My idol" conveys admiration for Corey Taylor[8] in a simple yet heartfelt manner, while the comment "Long live Emperor" expresses support and enduring appreciation for Emperor in a traditional way, both reflecting fans' excitement and strong feelings of loyalty. Perkins (2012: 354) notes that music fans exhibit four different behavioral tendencies online: casual, loyal, die-hard, and dysfunctional. The above comments show that viewers express their admiration for bands in the digital environment within the framework of these different behavioral tendencies.

In the digital environment, music fans develop loyalty based on the balance between the length of time spent as a fan, commitment and preference, and necessity (Obiegbu et al., 2019: 463). Viewer comments quoting lyrics during performances highlight a unique way of expressing their loyalty and admiration for bands. For instance, the comment "War inside my head" quotes the lyrics of Suicidal Tendencies' song "War Inside My Head," demonstrating familiarity and affection for the song, while the comment "Ballllllls to the waaaaaaallllls!" passionately extends the lyrics of Accept's song "Balls

to the Wall," emphasizing fandom. In the comment "Love will tear us apart again at the end of song 3. with mask without one I love you Corey!" admiration for Corey Taylor is expressed by quoting the lyrics of Joy Division's song "Love Will Tear Us Apart." The comment "We are the black wizards!" quotes the lyrics of Emperor's song "I am the Black Wizards," demonstrating deep appreciation and adoration for the song. Music subcultures are extremely dynamic forms that are molded by their members' everyday interactions and the profound emotional attachments they form with music, rather than representing fixed identities defined solely by notable characteristics (Allett, 2010: 16-17). The comments made by viewers in this context demonstrate that the actions of fans in the digital environment display subcultural allegiance and passion for metal music in a variety of different ways.

Music consumption and fan interaction are gaining new dimensions within the framework of the opportunities offered by digital platforms, and they play an important role in shaping leisure experiences in digital environments. In the case of the Hellfest live stream examined in this research, viewers engage interactively by sharing music knowledge, offering real-time music criticism, and displaying fan behavior in digital environments. Within the framework of the digital environment, it can be observed that the leisure experiences of viewers are being reconstructed and personalized. The exchange of information among viewers about bands, songs, and subgenres of metal music creates a wealth of knowledge within the community and strengthens subcultural bonds. Real-time music criticism allows for the instant evaluation of performances, while fan behaviors exhibited in the digital environment enable various expressions of loyalty to bands and metal music in general. The transformation of leisure experiences on digital platforms in this way partially compensates for the lack of physical participation and enriches viewer experiences. In online music communities, the ways in which viewers enrich their digital leisure experiences by sharing music-related knowledge and memories constitute an important dimension of interactive participation. The consumption of music and the interactions between fans in the digital environment shed light on the ways in which leisure activities and online music communities are transforming concurrently. These interactions enable fans to demonstrate their allegiance to bands and the genre of metal music as a whole, while also fostering the development of a robust network of engagement within the community.

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[8] Corey Taylor is an American musician best known as the lead vocalist of Slipknot and Stone Sour, who began his career in Des Moines, Iowa, has contributed to various other musical projects, and has produced for other bands while maintaining active roles in both of his main bands (metalstorm.net).

Intersection of Physical and Digital Festival Experiences

In this section of the study, audience comments regarding the digital festival experience are examined. In this regard, data on how virtual participation is shaped, the enriched festival experience, the fear of missing out, and future plans are analyzed.
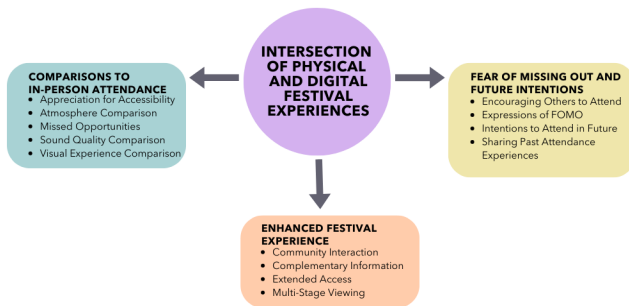

Figure 3. Categories and Codes of the Intersection of Physical and Digital Festival Experiences Theme

Comparisons to In-Person Attendance

The transformation of festival experiences in the digital age necessitates addressing the dynamic relationship between face-to-face and online participation, thereby revealing perceived similarities and differences through the comparison of these two forms of experience. The use of digital media communication in music festivals supports the creation of a sense of community among participants by enabling the emergence of new information and emotional responses, thus significantly transforming pre-festival, during-festival, and post-festival experiences (Brown et al., 2019: 75). At this point, viewer comments appear as expressions explaining how the live streaming is related to past physical festival experiences, particularly featuring various assessments related to its sound quality and atmosphere. For instance, in the comment "C'est pas mal d'enfin entendre sa voix, le mastering n'était vraiment pas bon sur place" (It's nice to finally hear his voice, the mastering was really not good on site), the sound quality of the live broadcast is highlighted, also drawing attention to the sound issues experienced during physical attendance. In the comment "J'étais sur place, c'était très bien, rien à redire du mix. C'est juste un soucis du broadcast" (I was there, it was very good, nothing to say about the mix. It's just a broadcast issue), it is conveyed that the sound mixing was good during physical attendance, but there were problems in the live streaming. The comment "The sound is so badly mixed haha" is presented as a direct criticism of the sound quality in the live streaming. In the comment "Sound is amazing at Hell-Fest, in général in France sound is great from outdoor or indoor exception for stadium, I think in stadium it is made for sport not for show like that," a gene-

ral evaluation of the sound quality at music events in France is provided. These comments reveal how viewers compare festival experiences in the context of sound quality by contrasting their face-to-face attendance with their online participation, highlighting the differences and similarities perceived in live and digital environments.

Based on the research on indie music live-streamed festivals, Zhao (2022) concludes that these types of events fail to foster an engaged atmosphere that is on par with traditional, in-person music festivals since they don't allow for the building of new social ties, shared meanings, and cultural engagement. A comparison of the overall atmosphere perceived during physical and virtual participation emerges as a significant topic in viewer evaluations, emphasizing the contrasting nuances in audience interaction, the vibrancy of the event, and the sense of community experienced in each format. At this point, the comment "audience seems really quiet" indicates that the live stream does not fully capture the energy of physical attendance, while the comment "best crowd ever" shows that the enthusiasm of the live audience is effectively reflected in the live stream. In the comment "Dead crowd... He even says at 27.00 guys is black metal too much for you?" it is mentioned that audience participation is insufficient and does not reflect the energy of physical attendance. The comment "La fosse s'est endormie" (Pit has fallen asleep) indicates a lack of mosh pit energy, while the comment "Now that's a proper crowd" expresses that the live stream successfully captures the festival atmosphere. Viewers of live-streamed performances can be motivated by various factors, including meaningful use of their time and the importance of high-quality sound experiences offered by virtual participation (Philips & Krause, 2024: 336). Overall, viewer comments reveal how sound quality and the general atmosphere of online participation are compared with physical attendance, thereby explaining through various examples how these experiences affect the viewer experience in terms of similarities and differences.

Fear of Missing Out and Future Intentions

Social media platforms are considered real-time interaction resources that allow users to keep up with instant updates about events, incidents, and conversations happening across various social networks. Fear of missing out (FoMO) is characterized by the desire of individuals to constantly monitor what others are doing on social media due to the concern that others might be having satisfying experiences (Przybylski et al., 2013: 1841). Within this particular framework, viewer comments convey their dissatisfaction at not being able to participate in Hellfest while also expressing their intentions to join the

event at a later time through diverse means. For instance, the comment "I'm sad that I missed this live in person and online." directly conveys the sadness of missing the festival. A viewer who sold the festival ticket expresses this situation and their regret for not being able to attend with the comment "Pourquoi j'ai revendu ma place du Hellfest d'aujourd'hui. je suis con." (Why did I sell my ticket to today's Hellfest? I'm an idiot.). Similarly, the expression of regret in the comment "Wish I could have been there... this is second best!" indicates that the live stream does not fully replace physical attendance. The comment "Damn, was hoping they'd play Empty." reflects the disappointment of a specific song (Emperor's song Empty) not being played. These comments serve as reflections of the feelings experienced by the audience as a result of their inability to physically participate in Hellfest, which was held in 2024.

Participation in music festivals through social networks is associated with high participation rates due to the specific reasons for participation unique to these platforms, while the motivation to re-attend festivals is shaped by the complex interaction of factors such as sociodemographic characteristics, past experiences, destination features, and overall satisfaction levels (Lei & Li, 2020: 27; Borges et al., 2020: 314). At this point, the expression of viewers' intentions to participate in future festivals and concerts emerges as another prominent aspect of the comments. The comments "I will definitely tune in for Hellfest 2025" and "One day, I will actually go to Hellfest" reveal viewers' intentions to attend festivals in the coming years. On the other hand, comments like "Tomorrow, they will be in Lisbon on Evil Live Festival and I will be there", "rdv a paris Elysée Montmartre!!!" (Let's meet at Paris Elysée Montmartre!!!), and "See you in Italy soon" confirm plans to participate in events to be held in different locations (Lisbon, Paris, and Italy) in the near future following the festival. Overall, viewer comments illustrate not only the disappointment and regret of not being able to attend Hellfest but also provide a detailed insight into how they express their plans and intentions to participate in future events. These comments highlight an intense anticipation and desire for upcoming events, underscoring the significance of live music experiences and the deep emotional connection that attendees have with such concerts.

Enhanced Festival Experience

Although live broadcasts, which challenge traditional concepts of space and experience, are widely accepted due to the phenomenon of "liveness," they are compelled to ambitiously mimic the spatial elements of face-to-face festivals while simultaneously offering a virtual alternative that particularly appeals to younger audiences, providing a sense of happiness, stress relief, flow, and interaction (Chen & Lin, 2018: 293; Green, 2023). At this point, the ability of live streaming to complement or enhance the physically conducted festival experience reveals an enriched festival experience. Viewer comments highlight how the live streaming adds value to the overall Hellfest experience. For instance, the comment "Did someone ID the bassist?" shows that viewers enrich the festival experience by sharing information during the live streaming. The comment "Anyone has timecodes?" indicates that viewers personalize their experience by requesting time codes to easily access specific moments of the performance. The comment "Whose bright idea was it to pan the drums and vocals almost all the way right…" demonstrates that viewers analyze the production quality of the live streaming by paying attention to technical details. In the comment "Replaced by Jay Weinberg, ex drummer of Slipknot," it is seen that viewers enrich their experience by sharing information about band members. Chen and Lin (2023: 301) state that live streaming platforms need to prioritize the development of more functional interactive features to make communication more effective in order to increase viewer engagement and activity. The comments above reveal how live streaming enriches the festival experience by fostering a sense of community and engagement among viewers, encouraging real-time interaction, information sharing, and collective participation, thereby enhancing the overall enjoyment and depth of the festival experience.

Among the opportunities provided by live streaming, ease of access and multi-stage videos stand out as prominent topics highlighted by viewers in their comments. For instance, the comment "Heureusement qu'il y a ce live quand même" (Luckily, there is this live stream) emphasizes that viewers who cannot attend in person can access the festival through the live stream. The comment "Mais au moins je peux regarder le replay" (But at least I can watch the replay) shows that viewers appreciate the option to rewatch performances they missed. The comment "No pude ver landmvrks, lo sacaron junto con el de megadeth, pero este ultimo si lo pude ver, ojala lo resuban" (I couldn't watch Landmvrks, they streamed it along with Megadeth[9], but at least I could watch Megadeth, I hope they re-upload it) reveals viewers' desire to rewatch performances they missed. The comment "I'd like to watch Babymetal[10]

but after sound post production (hopefully)" indicates that viewers expect sound improvements for a better festival experience. These comments demonstrate how the extended access and multi-stage viewing opportunities provided by live streaming enrich the viewer experience. Viewer comments explain how live streaming enhances the extent of the in-person festival, introducing novel aspects to the Hellfest experience. Ma et al. (2022) emphasize that live-streamed music events are an important tool for both parasocial interaction and viewer engagement. Therefore, these platforms offer an extremely functional perspective on how digital environments can meaningfully contribute to viewer participation, emotional interaction, and a more comprehensive, engaging festival experience overall.

The intersection of physical and digital festival experiences is becoming increasingly prominent in contemporary music festival culture. Analyses conducted on the Hellfest live stream within the scope of this research reveal various dimensions of this intersection. Viewer comments highlight how live streaming compares to physical attendance in terms of sound quality and overall atmosphere, thereby explaining through various examples how the similarities and differences between these experiences shape the viewer experience. Live streams offer viewers the opportunity to experience the festival atmosphere from the comfort of their homes, while also allowing them to analyze production quality by considering technical aspects. Therefore, individuals who are unable to physically attend the festival enhance their leisure experiences by accessing live streaming and foster greater connection among the subcultural community by exchanging information. On the other hand, it is understood that the experiences viewers gain through live streams do not completely substitute for being physically present. Live streaming is observed to play a complimentary role rather than being a substitute for actual events, despite the fact that it is acknowledged that this leisure experience does not entirely reflect the same ambiance that is present at a festival that is attended in person. Additionally, the potential of live streams to reach a wider audience by overcoming geographical and economic barriers highlights the functional role of digital platforms in disseminating the music festivals and increasing accessibility. Overall, viewer comments clearly demonstrate that the mutually beneficial and nurturing relationship between digital and physical festival experiences enhances multiple aspects of the festival experience.

The analysis of audience comments reveals a multifaceted impact on individuals' social identities and their place within the metal community, highlighting the complex interplay between digital participation and subcultural belonging (Schulz, 2022: 330; Simões & Campos, 2017: 27). The use of different languages and cultural references in audience comments underscores the global nature of Hellfest, reflecting the diverse linguistic and cultural backgrounds of participants. This linguistic diversity not only enriches the digital leisure experience but also contributes to the formation of a transnational metal community, transcending geographical boundaries (Chiu, 2020: 32; Wallach et al., 2011: 7). While the study acknowledges YouTube's role as a promotional tool for artists, a more in-depth examination of how the platform's algorithms and content recommendation systems shape audience interactions could provide valuable insights into the evolving dynamics of digital music culture (Apostolidis et al., 2022; Fleischer, 2017: 146). The sociocultural context of metal music genres and subgenres, as reflected in audience comments, reveals how digital platforms serve as spaces for the reproduction and negotiation of subcultural identities (March, 2024: 40-43; McKenna, 2012: 93). Furthermore, the analysis of audience comments demonstrates how digital participation both reinforces and challenges traditional notions of authenticity within metal subcultures, reflecting the ongoing tension between physical and virtual modes of subcultural engagement (Haenfler, 2022: 12; Riches, 2014: 157). These findings underscore the need for a broader sociocultural analysis that considers the complex interplay between digital technologies, subcultural practices, and the evolving landscape of music consumption in the contemporary era.

Conclusion

Within the scope of the study, it was aimed to reveal the main characteristics of participation in live-streamed music festivals as a new form of digital leisure and to examine in depth how digital platforms transform the music festival experience. In this regard, the qualitative content analysis conducted through the audience comments during the live streaming of Hellfest, which was held on 27/06/2024-30/06/2024, on the YouTube platform, reveals various dimensions of the digital festival experience. The findings under the themes of "Digital festival experience," "Music consumption and fan interaction," and "Intersection of physical and digital festival experiences" demonstrate how the digitalization of leisure reshapes the ways of participation in music festivals. At this point, live streaming technologies offer virtual participation opportunities for individuals who are unable to physically participate in festivals, allowing them to overcome the geographical limitations of

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[10] *BABYMETAL is a Japanese Kawaii Metal band formed in 2010, known for their fusion of metal and idol music, who have achieved international success with performances at major venues and festivals worldwide (toysfactory.co.jp).*

these events. In the context of digital leisure, the configuration of audience interactions contributes to the development of subcultural community building and collective festival experiences, thus enabling an integrated combination of traditional festival experiences and digital experiences. On the other hand, the effects of live streaming on music consumption and fan experiences are redefining the music festival ecosystem, along with the role played by digital platforms in interaction between audiences and community-building processes. In this context, the re-evaluation of the digital festival experience as a leisure activity gains importance in terms of understanding new forms of subcultural participation in the digital age by reinforcing a sense of belonging and community among the audience.

The digital transformation of music festivals, particularly through live-streaming platforms, has precipitated a paradigm shift in audience engagement and subcultural community sustainability. This metamorphosis transcends geographical and economic constraints, expanding access to cultural experiences while concurrently redefining the parameters of participation. Qualitative content analysis of viewer interactions during Hellfest's live stream elucidates the nuanced interplay between virtual and physical attendance, revealing that digital platforms foster a robust sense of community. These platforms offer novel avenues for subcultural identity formation, catalyzing the emergence of online music communities with distinct norms and behaviors. The real-time interactions and information sharing facilitated by digital media enrich the festival experience, expanding the conceptual boundaries of subcultural participation in leisure pursuits. Consequently, this digital shift necessitates the development of new theoretical frameworks to comprehend the evolving landscape of festival experiences and digital leisure consumption.

The netnographic approach employed in this study illuminates the complex ecosystem of digital leisure activities, demonstrating their capacity to create innovative spaces for social cohesion and intercultural communication within the metal subculture. While acknowledging that digital experiences cannot fully replicate the immersive nature of physical attendance, this research underscores the transformative potential of virtual festivals in reshaping audience dynamics and cultural exchange. The findings highlight the ability of live-streamed events to reach a wider audience by overcoming traditional barriers, thereby extending the boundaries of festival experiences and redefining leisure participation. Moreover, the study reveals that virtual participation can be partially as satisfying as physical attendance, emphasizing the need for a nuanced understanding of how online engagement complements traditional festival formats. This research accentuates the emergence of unique online communities characterized by distinctive interaction patterns and modes of cultural expression. Ultimately, these insights underscore the imperative to reconceptualize subcultural participation in the digital age, recognizing the unprecedented opportunities for cultural expression and community building afforded by virtual platforms in contemporary leisure practices.

The versatile effects of technological developments on leisure activities enable festivals to reach wider audiences through innovative and diversified event models. Within this process, which paves the way for the emergence of new sources of income, it is essential that festival events focus not only on commercial concerns, but also on supporting cultural diversity and freedom of artistic expression. At this point, virtual participation options have the potential to contribute to the preservation and development of cultural richness by providing a platform for non-mainstream music genres and subcultures. Therefore, it is important to consider the potential of these digital leisure opportunities to create a new space for different social groups to express themselves and interact with each other, both in terms of strengthening intercultural communication and increasing social cohesion. At this point, the fact that virtual festival experiences support traditional forms of events in a complementary way and offer new spaces of expression to various social groups emerges as an important transformative factor in shaping the future of the music industry. Through the preservation of cultural diversity and artistic freedom, the creation of a more inclusive and open festival culture is expected to contribute to the formation of a new ecosystem by reshaping the processes of music consumption and questioning the traditional structure of the music industry.

The implications of this research on digital leisure experiences, exemplified by the Hellfest case study, extend to music festival organizers, digital platform providers, and policymakers. The study highlights the potential of high-quality live streaming options to facilitate access to cultural events, expand reach, and enhance audience engagement, thereby reshaping the landscape of music consumption and subcultural participation. However, the limitations of focusing on a single festival and genre necessitate further investigation across diverse musical subcultures and event types. Future research should employ ethnographic methods to explore the long-term effects of virtual festival experiences on subcultural identity formation and community ties, examining how these digital interactions may be transforming metal subculture and fan behaviors. Additionally, investigating the emergence of new social groups or fan typologies resulting from digital broadcasts could provide valuable insights into the evolving landscape of digital leisure activities and their impact on music consumption patterns. The findings of this study contribute to the growing body of literature

on the digitalization of cultural experiences, offering a foundation for future research on the intersection of technology, subcultures, and event management.

To address these research gaps, comprehensive and multifaceted strategies are required. Longitudinal studies are required to investigate the evolution of virtual participation over time and its transformative impact on the festival ecosystem. Comparative studies examining the experiences of various demographic groups during virtual festivals may contribute to the development of initiatives promoting attendance diversity. Further empirical research is needed to explore how technological advancements, such as virtual and augmented reality applications, can enhance the festival experience. Studies focusing on the economic models and sustainability of virtual festivals are crucial for understanding the effects of digital transformation on the industry. Moreover, investigating the potential of these digital platforms to reshape metal subculture and fan behaviors could offer nuanced perspectives on the intersection of virtual and physical festival participation, contributing to our understanding of how digital platforms are transforming leisure experiences and their implications for subcultural communities in the digital age. The insights gained from these proposed research directions may inform policy decisions and industry practices, ultimately shaping the future landscape of music festivals and digital cultural engagement.

References

Adam, I. (2017). Leisure Aspirations of People with Visual Impairment in the Kumasi Metropolis, Ghana. Annals of Leisure Research, 21(3): 347–363. https://doi.org/10.1080/11745398.2017.1387798

Aleksiev, K. (2011). How European International Niche-Music Festivals Reach and Attract Their Audience, Master's Thesis, Erasmus School of History, Culture and Communication, Rotterdam.

Alhadar, M., Rahmat, R., Assagaf, F., Khitab, W.M. (2024). Exploring the Intersection of Religion and Culture: A Phenomenological Inquiry into the Cokaiba Tradition among the Fagogoru Community in Central Halmahera Regency. Tribakti: Jurnal Pemikiran Keislaman, 35(1): 79-94. https://doi.org/10.33367/tribakti.v35i1.4227

Allett, N. F. (2010). 'Love's Labours': Extreme Metal Music and Its Feeling Community, Doctoral Dissertation, University of Warwick, Warwick.

Auslander, P. (2012). Digital Liveness: A Historico-Philosophical Perspective. PAJ: A Journal of Performance and Art, 34(3): 3-11. https://doi.org/10.1162/PAJJ_a_00106

Apostolidis, K., Mezaris, V., Papadogiorgaki, M., Bei, E. S., Livanos, G., & Zervakis, M. E. (2022). Content and Other Resources Recommendations for Individuals with Intellectual Disability: A Review. Electronics, 11(21): 3472. https://doi.org/10.3390/electronics11213472

Aytaç, Ö. (2004). Kapitalizm ve Hegemonya İlişkileri Bağlaminda Boş Zaman. Cumhuriyet Üniversitesi Sosyal Bilimler Dergisi, 28 (2): 115-138.

Bennett, A., & Rogers, I. (2016). Popular Music Scenes and Cultural Memory. London: Palgrave Macmillan.

Borges, A., Cunha, C., & Lopes, J. (2020). The Main Factors That Determine the Intention to Revisit a Music Festival. Journal of Policy Research in Tourism, Leisure and Events, 13: 314-335. https://doi.org/10.1080/19407963.2020.1817051

Brasseur, M. (2021). BAND: A Strategic Framework to Help Indie Rock Musicians Build Their Audience via Streaming Platforms and Social Media, Master's Thesis, Louvain School of Management, Louvain-la-Neuve.

Brown, A., Donne, K., Fallon, P., & Sharpley, R. (2019). From Headliners to Hangovers: Digital Media Communication in the British Rock Music Festival Experience. Tourist Studies, 20: 75-95. https://doi.org/10.1177/1468797619885954

Charron, J. P. (2017). Music Audiences 3.0: Concert-Goers' Psychological Motivations at the Dawn of Virtual Reality. Frontiers in Psychology, 8: 800. https://doi.org/10.3389/fpsyg.2017.00800

Chen, Y., & Lei, W. S. C. (2021). Behavioral Study of Social Media Followers of a Music Event: A Case Study of a Chinese Music Festival. Journal of Hospitality and Tourism Insights, 4(2): 163-182. http://doi.org/10.1108/JHTI-09-2020-0168

Chen, C., & Lin, Y. (2018). What Drives Live-Stream Usage Intention? The Perspectives of Flow, Entertainment, Social Interaction, and Endorsement. Telematics Informatics, 35: 293-303. https://doi.org/10.1016/j.tele.2017.12.003

Chiu, K. (2020). Phónè and the Political Potential of Metal Music: A Scholarly Intervention, Doctoral Dissertation, University of Leiden, Leiden.

Cross, I. (2005). Music and Social Being. Musicology Australia, 28(1): 114-126. https://doi.org/10.1080/08145857.2005.10415281

Csiszár, S. (2016). An Exploratory Research on Co-Creation in a Festival's Virtual Community, Master's Thesis, Aalborg University, Copenhagen.

Dahl, E. (2021). May You Stream in Interesting Times: Streamed Music During the Pandemic Era, Master's Thesis, Norwegian University of Science and Technology, Trondheim.

Danielsen, A., & Kjus, Y. (2019). The Mediated Festival: Live Music as a Trigger of Streaming and Social Media Engagement. Convergence, 25(5): 865-880. https://doi.org/10.1177/1354856517721808

Delli Paoli, A., & D'Auria, V. (2021). Digital Ethnography: A Systematic Literature Review. Italian Sociological Review, 11(4S): 243-267. http://doi.org/10.13136/isr.v11i4S

Dieckmann, J., Steffens, M., & Methner, N. (2016). Back to the Roots: When Diversity Evokes Increased Group-Based Conventionalism. Group Processes & Intergroup Relations, 21(2): 351-367. https://doi.org/10.1177/1368430216670245

Dorr, M. M. (2023). Exploring Non-Activist Alternative Media: Audiences and Content, Doctoral Dissertation, Bowling Green State University, Bowling Green.

Elo, S., & Kyngäs, H. (2008). The Qualitative Content Analysis Process. Journal of Advanced Nursing, 62(1): 107-115. https://doi.org/10.1111/j.1365-2648.2007.04569.x

Eriksson, B., Stage, C., & Valtysson, B. (Eds.). (2020). Cultures of Participation: Arts, Digital Media and Cultural Institutions. Oxon: Routledge.

Estanyol, E. (2022). Traditional Festivals and COVID-19: Event Management and Digitalization in Times of Physical Distancing. Event Management, 26(3): 647-659. https://doi.org/10.3727/152599521X16288665119305

Fleischer, R. (2017). If the Song has No Price, is it Still a Commodity? Rethinking the Commodification of Digital Music. Culture Unbound, 9(2): 146-162. https://doi.org/10.3384/cu.2000.1525.1792146

Fraser, T., Crooke, A. H. D., & Davidson, J. W. (2021). "Music Has No Borders": An Exploratory Study of Audience Engagement With YouTube Music Broadcasts During COVID-19 Lockdown, 2020. Frontiers in Psychology, 12: 643893. https://doi.org/10.3389/fpsyg.2021.643893

Fusch, P. I., & Ness, L. R. (2015). Are We There Yet? Data Saturation in Qualitative Research. The Qualitative Report, 20(9): 1408-1416. https://doi.org/10.46743/2160-3715/2015.2281

Gallant, L., & Boone, G. (2021). Communicative Informatics: A Social Media Perspective for Online Communities, International

AAAI Conference on Web and Social Media.

Garay, L., & Morales, S. (2020). Decomposing and Relating User Engagement in Festivals' Virtual Brand Communities: An Analysis of Sónar's Twitter and Facebook. Tourist Studies, 20(1): 96-119. https://doi.org/10.1177/1468797619873109

Ghaffari, M., Khan, G. F., Singh, S. P., & Ferwerda, B. (2024). The Impact of COVID-19 on Online Music Listening Behaviors in Light of Listeners' Social Interactions. Multimedia Tools and Applications, 83(5): 13197-13239. https://doi.org/10.1007/s11042-023-16079-1

Goffman, E. (1959). The Presentation of Self in Everyday Life. New York: Anchor. Books

Green, B. (2023). Splendour XR: Place, Experience and Liveness at a Virtual Music Festival. Leisure Sciences, 1-18. https://doi.org/10.1080/01490400.2023.2171519

Guibert, G. (2020). La Musique Metal, Une Mondialisation Minoritaire. Hermès, La Revue, 86: 164-169. https://doi.org/10.3917/herm.086.0164

Guibert, G., Spanu, M., & Rudent, C. (2021). Beyond Live Shows: Regulation and Innovation in the French Live Music Video Economy. In C. Anderton & S. Pisfil (Eds.), Researching Live Music. London: Focal Press.

Guibert, G., & Sklower, J. (2011). Hellfest: The Thing That Should Not Be. Local Perceptions and Catholic Discourses on Metal Culture in France. Popular Music History, 6(2): 100-115. http://doi.org/10.1558/pomh.v6i1/2.100

Güven, U. Z. (2018). Müzik Kültürleri İncelemelerinde "Öteki" Kavramı Üzerine Sosyolojik ve Antropolojik Yaklaşımlar. Sosyoloji Dergisi, 38: 67⬚88. http://doi.org/10.26650/SJ.38.1.0003

Habibi, M. R., Laroche, M., & Richard, M. O. (2014). Brand Communities Based in Social Media: How Unique Are They? Evidence from Two Exemplary Brand Communities. International Journal of Information Management, 34(2): 123-132. https://doi.org/10.1016/j.ijinfomgt.2013.11.010

Haenfler, R. (2022). The Past, Present and Future of Subculture. In A. Bennett (Ed.), The Bloomsbury Handbook of Popular Music and Youth Culture. London: Bloomsbury.

Hagaman, A. K., & Wutich, A. (2017). How Many Interviews Are Enough to Identify Metathemes in Multisited and Cross-Cultural Research? Another Perspective on Guest, Bunce, and Johnson's (2006) Landmark Study. Field Methods, 29(1): 23-41. https://doi.org/10.1177/1525822X16640447

Häkkänen-Nyholm, H. (2020). Bruce Springsteen Fan Behavior and Identification. Psychology of Music, 49(4): 691-703. https://doi.org/10.1177/0305735619891774

Hassan, N. (2021). Metal on Merseyside: Music Scenes, Community and Locality. London: Palgrave Macmillan.

Hesmondhalgh, D., & Meier, L. M. (2018). What the Digitalisation of Music Tells Us About Capitalism, Culture and the Power of the Information Technology Sector. Information, Communication & Society, 21(11): 1555-1570. https://doi.org/10.1080/1369118X.2017.1340498

Hodkinson, P. (2015). Youth Cultures and the Rest of Life: Subcultures, Post-Subcultures and Beyond. Journal of Youth Studies, 19(5), 629-645. https://doi.org/10.1080/13676261.2015.1098778

Hofstede, G. (1984). Cultural Dimensions in Management and Planning. Asia Pacific Journal of Management, 1(2): 81-99. https://doi.org/10.1007/BF01733682

Hsieh, H. F., & Shannon, S. H. (2005). The Three Approaches to Qualitative Content Analysis. Qualitative Health Research, 15(9): 1277-1288. https://doi.org/10.1177/1049732305276687

Holt, F. (2020). Everyone Loves Live Music: A Theory of Performance Institutions. Chicago: University of Chicago Press.

Jensen, C. R., & Guthrie, S. (2006). Outdoor Recreation in America. Champaign: Human Kinetics.

Kahn-Harris, K. (2007). Extreme Metal: Music and Culture on the Edge. New York: Berg.

King, A. (2021). Tomorrowland Around the World 2020: A Virtual Pilgrimage. Journal of Communication Technology, 4(3): 80-103. https://doi.org/10.51548/joctec-2021-018

Korolenko, Y. (2021). Industriia Dozvillia v Umovakh Pandemii Covid-19: Antykryzovi Rishennia ta Perspektyvy [Leisure Industry in the Convention of the Covid-19 Pandemic: Anti-Crisis Solutions and Prospects]. Vìsnik Marìupol⬚s⬚kogo Deržavnogo Unìversitetu. Serìâ: Filosofìâ, Kulturologìâ, Socìologìâ, 22: 72-78. https://doi.org/10.34079/2226-2830-2021-11-22-72-78

Kozinets, R. V. (2010). Netnography: Doing Ethnographic Research Online. London: Sage.

Kozinets, R. V. (2002). The Field Behind the Screen: Using Netnography for Marketing Research in Online Communities. Journal of Marketing Research, 39(1): 61-72. https://doi.org/10.1509/jmkr.39.1.61.18935

Kyngäs, H. (2020). Qualitative Research and Content Analysis. In H. Kyngäs, K. Mikkonen, & M. Kääriäinen (Eds.), The Application of Content Analysis in Nursing Science Research. Cham: Springer.

Lee, D., Ng, P., & Wut, T. (2022). Virtual Reality in Festivals: A Systematic Literature Review and Implications for Consumer Research. Emerging Science Journal, 6(5): 1153-1166. https://doi.org/10.28991/esj-2022-06-05-016

Lehman, E. T. (2021). "Washing Hands, Reaching Out" - Popular Music, Digital Leisure and Touch during the COVID-19 Pandemic. Leisure Sciences, 43(1-2): 273-279. https://doi.org/10.1080/01490400.2020.1774013

Lei, W., & Li, C. (2021). The Mechanism of Linkages Between Online Community Participation and Festival Attendance: A Case Study of a Chinese Music Festival. Event Management, 25(1): 27-40. https://doi.org/10.3727/152599520x15894679115457

Liu, Z., & Huang, Y. (2014). Community Detection from Location-Tagged Networks, The 22nd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems.

Lizzo, R., & Liechty, T. (2022). Benefits and Motivations for Virtual Community Participation: A Netnography of the Hogwarts Running Club. Journal of Park and Recreation Administration, 40(2). https://doi.org/10.18666/jpra-2021-10778

Lu, X. (2023). Music Festivals and Edutainment in a Digital Age. In G. Rossetti, B. Wyatt, & J. Ali-Knight (Eds.), Festivals and Edutainment. Oxon: Routledge.

Ma, Z., Song, L., Zhou, J., Chong, W. K., & Xiong, W. (2022). How Do Comeback Korean Pop Performers Acquire Audience Empathetic Attachment and Sustained Loyalty? Parasocial Interactions Through Live Stream Shows. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.865698

Mahdi, T.C. (2018). Membership vs. Being of the Community: A Qualitative Study of the Go-Go Music - Cultural Community, Doctoral Dissertation, University of Maryland, Baltimore.

Mall, A. (2015). 'This Is a Chance to Come Together': Subcultural Resistance and Community at Cornerstone Festival. In A. E. Nekola & T. Wagner (Eds.), Congregational Music-Making and Community in a Mediated Age. London: Routledge.

March, K. L. (2024). Extremely Online: Cultural Borrowing, Mixing, and Transformation in Internet Music, Doctoral Dissertation, Temple University, Philadelphia.

Mattar, Y. (2003). Virtual Communities and Hip⬚Hop Music Consumers in Singapore: Interplaying Global, Local and Subcultural Identities. Leisure Studies, 22(4): 283-300. https://doi.org/10.1080/02614360310001594168

Mazzi, M. A. (2011). Quantitative Methods for the Analysis of Verbal Interactions in Psychotherapy. In M. Rimondini (Ed.), Communication in Cognitive Behavioral Therapy. New York: Springer.

McKenna, J. (2022). Exploring Subcultural Expressions of 'Transgression 'in the Global Extreme Metal Scene: A Theoretical and Case Study Analysis, Master's Thesis, University of Liverpool, Liverpool.

Metal Archives: https://metal-archives.com/bands/Accept [Access Date: 26.09.2024]

Metal Archives: https://metal-archives.com/bands/Cradle_of_

Filth [Access Date: 26.09.2024]

Metal Archives: https://metal-archives.com/bands/Emperor/30 [Access Date: 26.09.2024]

Metal Archives: https://metal-archives.com/bands/Machine_Head/335 [Access Date: 26.09.2024]

Metal Archives: https://metal-archives.com/bands/Megadeth [Access Date: 26.09.2024]

Metal Archives: https://metal-archives.com/bands/Suicidal_Tendencies [Access Date: 26.09.2024]

Metal Storm: https://metalstorm.net/bands/bandmember.php?-member_id=3251 [Access Date: 26.09.2024]

Miles, M. B., & Huberman, M. A. (1994). Qualitative Analysis: An Expanded Sourcebook. Thousand Oaks: Sage.

Montoro–Pons, J., Caballer-Tarazona, M., & García, M. (2023). Assessing Complementarities Between Live Performances and You-Tube Video Streaming. Empirical Economics, 65(6): 2953-2978. https://doi.org/10.1007/s00181-023-02444-4

Naveed, K., Watanabe, C., & Neittaanmäki, P. (2017). Co-Evoluti-on Between Streaming and Live Music Leads a Way to the Sustainable Growth of Music Industry – Lessons From the US Experiences. Technology in Society, 50: 1-19. http://doi.org/10.1016/j.techsoc.2017.03.005

Nedungadi, P., Mulki, K., & Raman, R. (2018). Improving Educational Outcomes & Reducing Absenteeism at Remote Villages with Mobile Technology and WhatsApp: Findings from Rural India. Education and Information Technologies, 23: 113-127. https://doi.org/10.1007/s10639-017-9588-z

Obiegbu, C. J., Larsen, G., Ellis, N., & O'Reilly, D. (2019). Co-Constructing Loyalty in an Era of Digital Music Fandom: An Experiential-Discursive Perspective. European Journal of Marketing, 53(3): 463-482. https://doi.org/10.1108/EJM-10-2017-0754

Olsen, K., Powell, M., Anic, A., Vallerand, R., & Thompson, W. (2020). Fans of Violent Music: The Role of Passion in Positive and Negative Emotional Experience. Musicae Scientiae, 26(2): 364-387. https://doi.org/10.1177/1029864920951611

Onderdijk, K. E., Swarbrick, D., Van Kerrebroeck, B., Mantei, M., Vuoskoski, J. K., Maes, P. J., & Leman, M. (2021). Livestream Experiments: The Role of COVID-19, Agency, Presence, and Social Context in Facilitating Social Connectedness. Frontiers in Psychology, 12: 647929. https://doi.org/10.3389/fpsyg.2021.647929

Oppenbergerová, H., & Stoffová, V. (2022). ICT in Dance Leisure Time Activities of Children and Youth. Journal of Technology and Information, 14(2): 151-159. https://doi.org/10.5507/jtie.2022.010

Perkins, A. (2012). How Devoted Are You? An Examination of Online Music Fan Behaviour. Annals of Leisure Research, 15: 354-365. https://doi.org/10.1080/11745398.2012.737301

Pessina, L. (2024). Encountering Irish Traditional Music Through Virtual Space: The Experience of FleadhFest 2021. International Journal of Event and Festival Management, 15(1): 62-84. https://doi.org/10.1108/ijefm-12-2022-0106

Phillips, W., & Cogan, B. (2009). Encyclopedia of Heavy Metal Music. London: Bloomsbury Publishing.

Phillips, M., & Krause, A. E. (2024). Audiences of the Future – How Can Streamed Music Performance Replicate the Live Music Experience? In N. T. Smith, P. Peters, & K. Molina (Eds.), Classical Music Futures: Practices of Innovation. Cambridge: Open Book Publishers.

Pietrzak-Franger, M., Liedke, H. L., & Radak, T. (2023). Presence and Precarity in (Post-) Pandemic Theatre and Performance. Theatre Research International, 48(1): 2-8. https://doi.org/10.1017/S0307883322000360

Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2016). Digital Ethnography: Principles and Practice. London: Sage.

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, Emotional, and Behavioral Correlates of Fear of Missing Out. Computers in Human Behavior, 29(4): 1841-1848. https://doi.org/10.1016/j.chb.2013.02.014

Pulh, M. (2022). Differentiation Through the Over-Experientializa-tion of Cultural Offers: The Case of Contemporary Music Festivals. International Journal of Arts Management, 24(2): 62-76.

Rashid, H. (2023). Collaborative Music Production via Live Strea-ming. IASPM Journal, 13(3): 66-75. https://doi.org/10.5429/2079-3871(2023)v13i3.6en

Rendell, J. (2021). Staying In, Rocking Out: Online Live Music Portal Shows During the Coronavirus Pandemic. Convergence, 27(4): 1092-1111. https://doi.org/10.1177/1354856520976451

Riches, G. (2012). 'Caught in a Mosh': Moshpit Culture, Extreme Metal Music, and the Reconceptualization of Leisure, Master's Thesis, University of Alberta, Alberta.

Riches, G. (2014). Distorted Riffs of Authenticity: The Production of Extreme Metal Music in Context of the Live Gig. In E. Forcier & T. Ravy (Eds.), Words, Worlds, Narratives: Transmedia and Immersion. Oxford: Inter-Disciplinary Press.

Riches, G., Lashua, B., & Spracklen, K. (2014). Female, Mosher, Transgressor: A 'Moshography' of Transgressive Practices within the Leeds Extreme Metal Scene. IASPM Journal, 4(1): 87-100. https://doi.org/10.5429/652

Riga, V. (2022). A Children's Festival During the COVID-19 Pandemic. European Journal of Education Studies, 9(5): 1-15. https://doi.org/10.46827/ejes.v9i5.4266

Schaap, J., Berghman, M., & Calkins, T. (2023). Attractive People Make Better Music? How Gender and Perceived Attractiveness Affect the Evaluation of Electronic Dance Music Artists. Empirical Studies of the Arts, 41(1): 284-303. https://doi.org/10.1177/02762374221118526

Schmidt, D. (2021). The Digital Revolution of the Music Industry and Its Emerging Future Trends, Master's Thesis, Nova School of Business and Economics, Lisbon.

Schulz, D. H. (2022). Expressing Identity, Experiencing Belonging, and Everyday Life in Heavy Metal Music, Doctoral Dissertation, University of Bradford, Bradford.

Sebele-Mpofu, F. Y. (2020). Saturation Controversy in Qualitative Research: Complexities and Underlying Assumptions. A Literature Review. Cogent Social Sciences, 6(1): 1838706. https://doi.org/10.1080/23311886.2020.1838706

Sher, S. T. H., & Su, N. M. (2023). From Screens to Projector, Wall, and TVs: Conceptualizing Livestreams as Design Material for Direct and Indirect Viewership Experiences. ACM on Human-Computer Interaction.

Simeonova, B., & Galliers, R. D. (2023). Power, Knowledge and Digitalization: A Qualitative Research Agenda. In B. Simeonova & R. D. Galliers (Eds.), Cambridge Handbook of Qualitative Digital Research. Cambridge: Cambridge University Press.

Simões, J. A., & Campos, R. (2017). Digital Media, Subcultural Activity and Youth Participation: The Cases of Protest Rap and Graffiti in Portugal. Journal of Youth Studies, 20(1): 16-31. https://doi.org/10.1080/13676261.2016.1166190

Sitaraman R. K. & Barton R. W. (2006). Method and Apparatus for Measuring Stream Availability, Quality and Performance. Google Patents.

Spracklen, K. (2015). Digital Leisure, the Internet and Popular Culture: Communities and Identities in a Digital Age. New York: Palgrave Macmillan.

Stevens, K. (2018). "You Had to Be There": Film Festival "Live-ness" and the Digitally Connected Audience. In T. Jenkins (Ed.), International Film Festivals: Contemporary Cultures and History Beyond Cannes and Venice. London: I.B. Tauris.

Surmanski, T. C. (2016). Mosh Pits or Liability Pits: Criminal and Tortious Liability at Concerts. Cambridge Law Review, 1: 115-134.

Toy's Factory: https://www.toysfactory.co.jp/artist/babymetal/bio [Access Date: 26.09.2024]

Urquhart, C. (2013). Grounded Theory for Qualitative Research: A Practical Guide. London: Sage.

Vandenberg, F., Berghman, M., & Schaap, J. (2021). The 'Lonely Raver': Music Livestreams During COVID-19 as a Hotline to Collective Consciousness? European Societies, 23(sup1): S141-S152.

The Investigation of Live Streaming Experience as a Digital Leisure Activity Through the Case of Hellfest

https://doi.org/10.1080/14616696.2020.1818271

Van Hemert, T., & Ellison, E. (2022). 'Punching Above Our Weight': Industry Visibility and Community Engagement in Rural and Regional Film Festivals. New Review of Film and Television Studies, 20(4): 522-545. https://doi.org/10.1080/17400309.2022.2122652

Van Winkle, C., & Bueddefeld, J. (2020). Information and Communication Technology in Event Management. In Z. Xiang, M. Fuchs, U. Gretzel, & W. Hopken (Eds.), Handbook of e-Tourism. Cham: Springer.

Venkatesh, V., Podoshen, J. S., Urbaniak, K., & Wallin, J. J. (2015). Eschewing Community: Black Metal. Journal of Community & Applied Social Psychology, 25(1): 66-81. https://doi.org/10.1002/casp.2197

Wallach, J., Berger, H. M., & Greene, P. D. (Eds.). (2011). Metal Rules the Globe: Heavy Metal Music Around the World. Durham: Duke University Press.

Wang, R., Codina, R., Sun, Y., & Ding, X. (2024). Experience, satisfaction and loyalty in the context of online music festivals in China. International Journal of Event and Festival Management, 15(2): 228-248. https://doi.org/10.1108/IJEFM-04-2023-0034

Wang, W. (2021). Standing In/Out: The Platformization of Tencent's TME Live in Post-Pandemic China. Perfect Beat, 21(1): 56-62. https://doi.org/10.1558/prbt.19293

Webster, E. (2014). Association of Independent Festivals Six-Year Report 2014. The Live Music Exchange. https://livemusicexchange.org/wp-content/uploads/AIF-2014-FINAL-   FINAL-FINAL.pdf [Access Date: 20.07.2024]

Weinstein, D. (2000). Heavy Metal: The Music and its Culture. New York: Da Capo Press.

Xu, Y. (2023). The Stylistic Significance of the "Hippie" Youth Subculture – Using the Woodstock Festival as a Case Study. Advances in Applied Sociology, 13(5): 410-421. https://doi.org/10.4236/aasoci.2023.135025

Zhao, S. (2022). Why Live Music Matters: Implications from Streaming Music Festivals in the Chinese Indie Music Scene. Cultural Sociology, 17: 457-475. https://doi.org/10.1177/17499755221125147