# CLASSICAL MUSIC FUTURES PRACTICES OF INNOVATION

EDITED BY NEIL T. SMITH, PETER PETERS, AND KAROLY MOLINA

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# **Classical Music Futures**

Practices of Innovation

Edited by Neil Thomas Smith, Peter Peters and Karoly Molina





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# 17. Audiences of the Future – How Can Streamed Music Performance Replicate the Live Music Experience?

Michelle Phillips and Amanda E. Krause

## Introduction

The COVID-19 pandemic created a crisis for the live music industry. It 'disrupted the spatial practice of music' around the world and resulted in long-term impacts on the live music sector, a sector which may subsequently need to consider health and safety in new ways (e.g. the need for social distancing) for years to come.<sup>1</sup>

In place of live music events, many artists and organisations around the world developed new methods of offering their content in an online format. Formats included performances that were livestreamed (broadcast) in real time, and performances that were recorded and then made available at a later date (accessed either 'live' whilst the recording was broadcast at a designated time, or available to access at any later point, akin to a YouTube video). For many artists and organisations, this was a new way of presenting content and, hence, the

See Iain A. Taylor, Sarah Raine, and Craig Hamilton, 'COVID-19 and the UK Live Music Industry: A Crisis of Spatial Materiality', *The Journal of Media Art Study and Theory* 1:2 (2020), p. 219; Richard Florida and Michael Seman, 'Measuring COVID-19's Devastating Impact on America's Creative Economy', *Metropolitan Policy Program at Brookings, August* 32 (2020); Xin Gu, Nevin Domer, and Justin O'Connor, 'The Next Normal: Chinese Indie Music in a Post-COVID China', *Cultural Trends* 30:1 (2021), 63-74; M. Harris, J. Kreindler, A. El-Osta, T. Esko, and A. Majeed, 'Safe Management of Full-Capacity Live/Mass Events in COVID-19 Will Require Mathematical, Epidemiological and Economic Modelling', *Journal of the Royal Society of Medicine* 114:6 (2021), 290-294.

pandemic allowed audiences to engage with performances in an online environment for the first time (Rendell terms this 'pandemic media').<sup>2</sup> For example, the English National Opera, Vienna Philharmonic, Wigmore Hall and the Royal Northern College of Music (RNCM) (in their #LiveFromTheRNCM broadcast series) offered performances in a livestreamed or recorded-and-then-broadcast format during the various COVID-19-related lockdown periods.

Organisations that would usually have made artistic content available in person only (live), found themselves exploring new ways of continuing to share content. These online formats introduced multiple new considerations, such as the technical requirements for broadcasting live and the selection of relevant online platforms used to reach existing audiences. Other urgent questions concerned what audiences would want in their livestream experience, and whether they would even be interested in switching from live to online attendance. Mixed in with these questions are considerations around how an online experience might be similar or different to a live performance, whether people's motivations to attend these two different formats are similar, and how preferences for live and online attendance may differ depending on people's own characteristics, or individual differences.

Another important question facing organisations attempting to translate the live experience to an online one, is what a 'live' experience consists of, and what audiences might expect of this experience to be represented in online attendance. Furthermore, of those expectations, what elements of the live experience are possible to replicate online, and are there aspects that are simply not possible to maintain? There is evidence to support the value of 'liveness' in music performance,<sup>3</sup> but what this is, and whether it can be replicated in an online format, is currently little understood.

<sup>2</sup> James Rendell, 'Staying In, Rocking Out: Online Live Music Portal Shows During the Coronavirus Pandemic', *Convergence* 27:4 (2021), p. 1092.

<sup>3</sup> See e.g. Philip Auslander, Liveness: Performance in a Mediatized Culture (Abingdon, Oxon: Routledge, 2008); Steven C. Brown and Don Knox, 'Why Go to Pop Concerts? The Motivations Behind Live Music Attendance', Musicae Scientiae 21:3 (2017), 233-249; Michael Tsangaris, 'The Eternal Course of Live Music Views and Experiences of an Audience', in The Future of Live Music (New York, Bloomsbury, 2020).

Despite the pandemic and associated lockdowns having 'propelled many musicians into the livestreaming arena and the practice of livestreaming concerts',<sup>4</sup> there is at present little research to support decisions that organisations may make in terms of how they transfer a performance which would have usually been offered live to an online performance, and how they might evaluate factors which may be important in how they record and / or livestream (e.g. sound quality, camera angles). The study which is discussed in this chapter sought to address some of these questions. Namely, the data analysed and reported here sought to examine what people's motivations to attend live and livestreamed music pre-COVID-19 were, which format they preferred, and what they saw as the advantages and disadvantages of livestreamed music. The aim of asking these questions was to determine what people value in a live performance versus a livestreamed performance, in order for the findings to be available to, and relevant for, organisations considering whether to return to live music performance, or also continue to livestream some or all events. One of the main focuses of the chapter, as the data and findings are discussed, will be an examination of two factors - the notion of live music as a shared experience, and as being about fun or having a good time on a night out.

#### Current Study

An online survey was conducted with 281 members of the general public (average age: 35.89 years, all UK residents), who were invited to discuss their experiences of live and livestreamed music before and during the COVID-19 pandemic. They were recruited, and paid for their time, using the survey platform *Prolific*. Respondents were asked a series of questions regarding their preferred music genre, motivations to attend live and livestreamed performance, what they consider to be the advantages and disadvantages of attending performances online, and what they consider 'liveness' to mean.

<sup>4</sup> Julia Haferkorn, Brian Kavanagh, and Samuel Leak, 'Livestreaming Music in the UK: Report for Musicians' (2021), https://eprints.mdx.ac.uk/33787/1/ Livestreaming%20Music%20in%20the%20UK.pdf, p. 4.

## Motivations to Attend Live and Livestreamed Performance Pre-Pandemic

Respondents, who listed mostly pop and rock music as their preferred music genre, gave the following main motivations for attending live and livestreamed music (these were selected form a list of options, and participants were invited to select all that applied to them).<sup>5</sup>

Top <u>live</u> responses:	Top <u>livestreamed</u> responses:
Having fun/ having a good night out	The quality of the band/ performer/
Sharing an experience with my	ensemble
friends/ partner/ family	The sense of occasion
The quality of the band/ performer/ ensemble	Filling my free time in a meaningful/
	<u>enriching way</u>
The sense of occasion	The sound quality in my home
	<u>environment</u>

From these lists of motivations, it can be seen that, whilst two factors are common between live and livestreamed performance attendance – 'the quality of the band / performer / ensemble' and 'the sense of occasion' – two factors in each list differ (underlined in the table above). Attendance at live performance often results from a desire to share an experience with friends, a partner or family, and to have fun, or have a good night out. In contrast, attendance at performances streamed online may be motivated by a wish to fill time in a meaningful and enriching way, and the sound quality in one's own home. From this it could be concluded that, whilst some attendance motivations are the same, there are also some that are fundamentally different. These data suggest that different people may choose to attend live or livestreamed performances based on different motivations, and these may be useful for organisations

<sup>5</sup> The options were: Discovering more about the arts, sharing an experience with my friends/partner/family, experiencing thought-provoking art, having a strong emotional experience, losing myself in an arts experience, giving my support to an organisation whose values I believe in, feeling like I have experienced a unique event, having fun / having a good night out, filling my free time in a meaningful/ enriching way, being around people like me, the quality of the band/performer/ ensemble, the venue, the programme/set, the sound quality in a live environment / my home environment, the sense of occasion, other.

and performers to be aware of when planning and marketing live and livestreamed events. These data also provide some evidence that there may be particular aspects of live performance which motivate people to attend in person. The remainder of the chapter will examine these two factors – the notion of live music as a shared experience, and as being about fun or having a good time on a night out – in more detail, with reference both to existing research and thematic analysis of further data gathered in the survey discussed above.

#### Music as a Social Tool

A wealth of research testifies to the value of music as fostering a sense of social connectedness.<sup>6</sup> For example, Schäfer and Eerola surveyed the role that people felt that listening to music played for them, and found that music acted for some as a 'social surrogate' (i.e. music was used by listeners to feel a sense of being with other people, and could subsequently alleviate loneliness).<sup>7</sup> Music has been considered to be a valuable human communication system due to having indirect meaning, in contrast to language's direct meaning, enabling a musical exchange to be free from conflict, and music has been found to possess an important quality which might be termed 'floating intentionality'.<sup>8</sup> The role of music in the community, often in the form of community choirs, amateur ensembles, brass bands, karaoke events and music used to enhance health and wellbeing for not only the general public, but those living with Parkinson's or dementia, might legitimately be attributed

<sup>6</sup> See e.g. Betty A. Bailey and Jane W. Davidson, 'Effects of Group Singing and Performance for Marginalized and Middle-Class Singers', *Psychology of Music* 33:3 (2005), 269-303; Amanda E. Krause, Jane W. Davidson, and Adrian C. North, 'Musical Activity and Well-Being: A New Quantitative Measurement Instrument', *Music Perception* 35:4 (2018), 454-474.

<sup>7</sup> Katherina Schäfer and Eerola, Tuomas, 'How Listening to Music and Engagement with Other Media Provide a Sense of Belonging: An Exploratory Study of Social Surrogacy', *Psychology of Music* 48:2 (2020), 232-251, https://doi. org/10.1177/30575618795036. See also Amanda E. Krause, 'The Role and Impact of Radio Listening Practices in Older Adults' Everyday Lives', *Frontiers in Psychology* 11:603446 (2020); Katherina Schäfer, Suvi Saarikallio, and Tuomas Eerola, 'Music May Reduce Loneliness and Act as Social Surrogate for a Friend: Evidence from an Experimental Listening Study', *Music & Science* 3 (2020), 2059204320935709.

<sup>8</sup> Ian Cross, 'Music and Communication in Music Psychology', Psychology of Music 42:6 (2014), 809–819.

to its power in bringing people together and fostering social cohesion (music has also been discussed in terms of indicating class distinction, and affiliation with specific groups, for example those identifying as 'punks').

Never has the positive impact of music been clearer than in research on music as a social tool during the last few years. Many studies examining the role of music listening during the COVID-19 pandemic have demonstrated not only an increase in the amount of time spent listening to music,<sup>9</sup> but also the use of listening to music to regulate mood, cope with stress and connect with other people.<sup>10</sup> Additional findings have shown that music, more than other activities and media

<sup>9</sup> See e.g. Alberto Cabedo-Mas, Cristina Arriaga-Sanz, and Lidon Moliner-Miravet, 'Uses and Perceptions of Music in Times of COVID-19: A Spanish Population Survey', Frontiers in Psychology 11:606180 (2021); Emily Carlson, Johanna Wilson, Margarida Baltazar, Deniz Duman, Henna-Riika Peltola, Petri Toiviainen, and Suvi Saarikallio, 'The Role of Music in Everyday Life During the First Wave of the Coronavirus Pandemic: A Mixed-Methods Exploratory Study', Frontiers in Psychology 12:647756 (2021); Lauren K. Fink, Lindsay A. Warrenburg, Claire Howlin, William M. Randall, Niels C. Hansen, and Melanie Wald-Fuhrmann, 'Viral Tunes: Changes in Musical Behaviours and Interest in Coronamusic Predict Socio-Emotional Coping During COVID-19 Lockdown', Humanities & Social Sciences Communications 8:1 (2021), 1-11.

<sup>10</sup> See e.g. Alberto Cabedo-Mas et al, 'Uses and Perceptions', 2021; Lauren K. Fink et al., 'Viral Tunes', 2021; Roni Granot, Daniel H. Spitz, Boaz R. Cherki, Psyche Loui, Renee Timmers, Rebecca S. Schaefer, Jonna K. Vuokoski, ... Salomon Israel, "Help! I Need Somebody": Music as a Global Resource for Obtaining Wellbeing Goals in Times of Crisis', Frontiers in Psychology 12:648013 (2021); Noah Henry, Diana Kayser, and Hauke Egermann, 'Music in Mood Regulation and Coping Orientations in Response to Covid-19 Lockdown Measures Within the United Kingdom', Frontiers in Psychology 12:647879 (2021); Pastora Martínez-Castilla, Isabel M. Gutiérrez-Blasco, Daniel H. Spitz, and Roni Granot, 'The Efficacy of Music for Emotional Wellbeing During the COVID-19 Lockdown in Spain: An Analysis of Personal and Context-Related Variables', Frontiers in Psychology 12:647837 (2021); Rosie Perkins, S. L. Kaye, B. B. Zammit, Adele Mason-Bertrand, Neta Spiro, and Aaron Williamon, 'How Arts Engagement Supported Social Connectedness During the First Year of the COVID-19 Pandemic in the UK: Findings from the HEartS Survey', Public Health 207:1208 (2022); Fabiana S. Ribeiro, João P. Araujo Lessa, Guilherme Delmolin, and Flávia H.Santos, 'Music Listening in Times of COVID-19 Outbreak: A Brazilian Study', Frontiers in Psychology 12:647473 (2021); Dianna Vidas, Joel L. Larwood, Nicole L. Nelson, and Genevieve A. Dingle, 'Music Listening as a Strategy for Managing COVID-19 Stress in First-Year University Students', Frontiers in Psychology 12:647065 (2021).

types, has supported emotional well-being and quality of life during COVID-19.<sup>11</sup>

Hansen et al. discuss media engagement habits during the COVID-19 pandemic, and moreover, the shift from audio- to videobased platforms.<sup>12</sup> Other studies have also explored experiences of livestreamed music during the pandemic. For example, Onderdijk, Swarbrick, Van Kerrebroeck, Mantei, Vuoskoski, Maes and Leman examined livestreamed experiences and what listeners valued in these, and found that social connectedness results from listeners feeling a sense of physical presence in a musical experience.<sup>13</sup> Indeed, this has been a noted feature of attending live music: that 'being there' to experience something 'unique' and 'special' is a primary motivator for attending live concerts.<sup>14</sup> As Earl noted, thanks to listening technologies, people do not have to attend live music to hear high-quality music they enjoy,<sup>15</sup> which suggests a social motivation to attend concerts. It is the concert experience, with considerations of the atmosphere, the uniqueness, the proximity to musicians, and opportunity to socialise with others sharing the experience – rather than the music itself – that underpins the reasons for seeking out live music opportunities.<sup>16</sup> While people engage with live music less than recorded music,<sup>17</sup> when asked about their favourite

<sup>11</sup> Roni Granot et al., ""Help! I Need Somebody", 2021; Amanda E. Krause, James Dimmock, Amanda L. Rebar, and Ben Jackson, 'Music Listening Predicted Improved Life Satisfaction in University Students During Early Stages of the COVID-19 Pandemic', *Frontiers in Psychology* 11:631033 (2021).

<sup>12</sup> Niels C. Hansen, John M. G. Treider, Dana Swarbrick, Joshua S Bamford, Johanna Wilson, and Jonna K. Vuoskoski, 'A Crowd-Sourced Database of Coronamusic: Documenting Online Making and Sharing of Music During the COVID-19 Pandemic', *Frontiers in Psychology* 12:2377 (2021).

<sup>13</sup> Kelsey E. Onderdijk, Dana Swarbrick, Bavo Van Kerrebroeck, Maximillian Mantei, Jonna K. Vuoskoski, Pieter-Jan Maes, and Marc Leman, 'Livestream Experiments: The Role of COVID-19, Agency, Presence, and Social Context in Facilitating Social Connectedness', *Frontiers in Psychology* 12:1741 (2021).

<sup>14</sup> Steven C. Brown and Don Knox, 'Why Go to Pop Concerts?', 2017, p. 233; see also Jan Packer and Julie Ballantyne, 'The Impact of Music Festival Attendance on Young People's Psychological and Social Well-Being', *Psychology of Music* 39:2 (2011), 164–181.

<sup>15</sup> Peter E. Earl, 'Simon's Travel Theorem and the Demand for Live Music', *Journal of Economic Psychology* 22 (2001), 335–358.

<sup>16</sup> Steven C. Brown and Don Knox, 'Why Go to Pop Concerts?' (2017), 233-249.

<sup>17</sup> Amanda E. Krause and Steven C. Brown, 'A Uses and Gratifications Approach to Considering the Music Formats that People use Most Often', *Psychology of Music* 49:3 (2021), 547-566.

format (selecting from live music, digital file, paid-for streaming, free streaming, physical and radio), a preference for live music has been noted.<sup>18</sup> While each format has associated uses and gratifications, Brown and Krause's findings reveal that live music still holds a special place for listeners: that it is a 'unique and organic form of entertainment'.<sup>19</sup> This is due to the social and emotional elements highlighted as reasons for preferring live music, which were not noted as reasons pertaining to the other formats.

#### What Is 'Liveness'?

Overwhelmingly, respondents to our survey reported they found the live music experience to be the more enjoyable type of music performance, compared to livestreamed attendance. As seen regarding the motivations above and in other data collected and analysed as part of this survey, reasons for wishing to attend live music include this being a shared experience (and opportunities to interact both with other audience members and performers) and having fun and a good night out. But what aspects of live music performance grant these experiences, and how can we translate these into factors that organisations can attempt to replicate if they do choose to offer previously live experiences in an online format?

Thematic analysis of survey respondents' answers to the question of what they consider 'liveness' to mean resulted in the following five themes:

Theme	Illustrative quotes
Interaction with audience and performers	'A crowd, along with the performer reacting in real time to a crowd. Not just [a] repeatable set'
Atmosphere / immersion	'Ambience, movement, atmosphere, emotion'

<sup>18</sup> Steven C. Brown and Amanda E. Krause, 'Freedom of Choice: Examining Music Listening as a Function of Favorite Music Format', *Psychomusicology: Music, Mind,* and Brain 30:2 (2020), 88-102.

<sup>19</sup> Ibid., p. 8.

Theme	Illustrative quotes
Being there in real life	'Being physically present in the same space as the band and other fans'
Sensory experiences	'Be[ing] able to watch other <u>peoples</u> [sic] reactions be[ing] able to feel the vibrations of the music'
Sharing the experience with other people	'The sense of "togetherness" with a whole bunch of people with the same taste'

The themes of 'Interaction with audience and performers' and 'sharing the experience with other people' testify to the desire to be with other people in the same space (a crowd), and the possibilities of interacting with others in the room. The themes 'Atmosphere / immersion', 'being there in real life' and 'sensory experiences' give more detail regarding factors that may be linked to the motivations to have fun, and to have a good night out, which were found in the data discussed above.

The survey on livestream experiences conducted by Haferkorn, Kavanagh and Leak in 2021 demonstrated that, overwhelmingly, audiences used the platforms Facebook and YouTube most often to access online content during the COVID-19 pandemic.<sup>20</sup> These platforms do not offer any particular features designed to impact atmosphere, sense of presence or sensory experience. However, perhaps future developments in effective livestreamed music might consider how best to facilitate these aspects of what listeners value in liveness. Such considerations might take into account the technology that listeners use to access livestreamed performance (and, for example, the resolution of audio and visual information), and how to optimise experiences on commonly used technology, as well as how to foster a sense of presence (perhaps by developing features such as Facebook's options to contribute emojis and comments during a livestream, which other listeners can see and respond to). Relatedly, work on music experiences in virtual reality (VR) and augmented reality (AR) may be particularly pertinent to future decisions about how to best present musical performances. Such technologies can distort the boundaries of

<sup>20</sup> Julia Haferkorn et al., 'Livestreaming' (2021).

live and mediated performance.<sup>21</sup> Developments in VR and AR speak to immersiveness, which may have significant implications for creating feelings of 'liveness.' Indeed, Onderdijk, Swarbrick, Van Kerrebroeck, Mantei, Vuoskoski, Maes and Leman found that VR did provide a sense of physical presence in their study of livestreamed experiences using VR headsets.<sup>22</sup> In this study, participants watched a YouTube stream of the performance filmed in 360 degrees, and, therefore, had a sense of being surrounded by the performance as they watched through the headset. Such technology may be intended to allow attendees to feel that they are inside a venue or performance space simply by wearing a VR headset in their own homes.

#### Advantages and Disadvantages of Livestreamed Performance

Respondents to the survey were asked what they saw as the advantages and disadvantages of livestreamed performance. The following themes resulted from thematic analyses of these two questions, and each set of themes is listed in order of the extent to which the theme was prominent in the data (the most prominent theme is at the top of each list).

What do you see as the advantages of attending a performance which is streamed online (compared to a live (in-person) performance)? Results of thematic analysis:

Charron Jean-Philippe, 'Music Audiences 3.0: Concert-Goers' Psychological Motivations at the Dawn of Virtual Reality', *Frontiers in Psychology* 8:800 (2017).

<sup>22</sup> Kelsey E. Onderdijk et al., 'Livestream Experiments' (2021).

Theme	Sub-themes	Illustrative quotes
Convenience / easier engagement	<ul> <li>More comfortable (seating, access to food and drink, access to toilets, clothing)</li> </ul>	'Cheaper, easier, and don't have to make as much effort.'
	• Ease/convenience (can arrive and leave at will, less stressful)	
	<ul> <li>Time saved (queuing for toilets, food and drink and parking, travelling, planning)</li> </ul>	
Logistics	<ul> <li>Travel (saves time and money, parking, queues)</li> <li>Weather considerations (avoiding bad weather, mud and rain)</li> </ul>	'Can watch in comfort of own home, cheaper, less time required as no travel involved.'
	<ul> <li>Lower cost (cheaper, ticket prices, food and drinks, travel)</li> </ul>	

Theme	Sub-themes	Illustrative quotes
Accessibility	<ul> <li>Access to greater number of events (less risk of event being sold out, possibility of accessing events around the world)</li> </ul>	'You can see a performance that one has no hope of attending in person such as distance or costs.'
	<ul> <li>Individual accessibility needs (parenting responsibilities, anxiety, illness, disability)</li> </ul>	
(Lack of) Social interaction	<ul> <li>Not being with other people / in large crowds</li> </ul>	'No anxiety around being with other people in close proximity to each other and sharing conveniences etc.'
Health and safety	<ul> <li>Safety (COVID-19 risk, risk of other infections)</li> </ul>	'Keeps you safe from COVID.'
Environment	Better for the environment (more eco-friendly)	'Better for the environment.'
Quality of experience	<ul> <li>Better view of artist(s) (camera angles, closer view, guaranteed view)</li> </ul>	'A better, close-up, view of the performers, too.'

Some of these themes and sub-themes support the data analysis discussed above; for example, social interaction appeared there as a motivation to attend live performance, but not livestreamed. However, this thematic analysis also underlines that, for some people, the opportunity *not* to be with others, or in a crowd, during the performance is an advantage to livestreamed performance. Given the findings discussed above regarding the importance of the social aspect of live events, it is worth bearing in mind that some audience members may actively seek to avoid such social interaction (e.g. people who experience social anxiety).

However, the thematic analysis also revealed important new themes, such as considerations around accessibility and environmental concerns. Such factors suggest that there may be specific individuals or demographics who may choose livestreamed performance over live performance in future. For example, if environmental concerns are a factor in how listeners choose to attend a performance, they may opt for livestreamed rather than live, in-person events. The 'safety' theme also suggests that there may be short-to-medium-term effects of the COVID-19 pandemic, and that performers and venues may need to consider what measures they keep in place (such as recommending the wearing of face masks) in the medium or even long term. Furthermore, this thematic analysis captures the important consideration that a wide practice of livestreaming may open up access to events around the world that audiences might not otherwise attend; the primary and sub-themes in the table above suggest that audiences feel that livestreaming means that more performances around the world are available to them, and that such engagement may better accommodate their own needs, such as disabilities, or caring responsibilities.

What do you see as the disadvantages of attending a performance which is streamed online (compared to a live (in person) performance? Results of thematic analysis:

Theme	Sub-themes	Illustrative quotes
Sensory experience	<ul> <li>Atmosphere (being in the moment, being captivated, vibe, energy, buzz, ambience)</li> </ul>	'the sound, the atmosphere, the energy, the immediacy, the reality of an event right in front of you.'
	<ul> <li>Physicality of the live experience (dancing, sensory experiences, immersion)</li> </ul>	

Theme	Sub-themes	Illustrative quotes
Social interaction	<ul> <li>Social interaction (with performers and other audience members, sense of community, connection with other people)</li> </ul>	'there isn't a feeling of belonging and sharing a unique experience with all those around you.'
Emotional response	<ul> <li>Emotional response (fun, excitement, mood, feelings, livestreamed experiences feeling lonely / solitary)</li> </ul>	'Emotional experience is not as good.'
Quality of experience	<ul> <li>Different quality of experiences (livestream experience as inferior, not the same, not as memorable)</li> <li>Sense of occasion (going out / leaving the house, chance to also enjoy eating and drinking at the venue)</li> </ul>	'There's not the excitement of getting dressed up and going out for a "once in a lifetime" event.'

Theme	Sub-themes	Illustrative quotes
Logistics	<ul> <li>Technological considerations (sound quality, internet connection issues, home listening systems and technology)</li> </ul>	<ul><li>'1. Camera dictates the audience's gaze.</li><li>2. Experience isn't as immersive. 3. Quality of stream isn't normally as good as in-person.'</li></ul>
	<ul> <li>Home environment (distractions at home, livestream experience as similar to watching television)</li> </ul>	
	<ul> <li>Logistics         <ul> <li>(live music</li> <li>venue, travel</li> <li>considerations,</li> <li>cost of tickets)</li> </ul> </li> </ul>	

This thematic analysis further emphasises some of the findings of data discussed above, such as the importance of the atmosphere (a theme which arose in the data on what constitutes 'liveness'), the opportunity for social interaction (which appeared in both the data regarding 'liveness' and the motivations to attend live performance), and the physical sensations of the live experience (which also appeared in the themes concerning 'liveness'). Also, the quality of the sound, and the reliability of the internet signal, appeared as themes here, and sound quality was also listed as a motivation to attend online performances. Notable here is the theme of 'Emotional response'. This could be seen as linked to the motivation to have fun / have a good night out, which was seen in the analysis discussed above; however, it also stands on its own and speaks to an additional common motivation and response concerning musical involvement. These respondents felt that a disadvantage of a livestreamed experience was that different parts of the emotional experience were missing or lessened, such as the fun or excitement of the live event. Again, there are some themes here not evident in the results and data analysis discussed earlier in this chapter. For example, the considerations that a person's own home environment is relevant, and the extent to which there are distractions at home, or whether people simply enjoy a chance to leave the house.

Respondents perceived both the advantages and disadvantages of livestreamed performance to include considerations around social interaction, logistics and quality of experience. However, each analysis revealed different sub-themes, and respondents demonstrated that an aspect perceived as an advantage for one person may be perceived as a disadvantage for another (e.g., the social interaction theme). Most notable in the summary of these two thematic analyses is that they each have themes that are unique to that set of responses; the advantages of livestreamed performance include convenience and ease of engagement, accessibility, environment and health and safety, and the disadvantages include sensory experience and emotional response. It is perhaps these factors that organisations, performers and venues should bear in mind when planning whether performances are made available in person, online or in a hybrid format. For example, if a performance is only available in a livestreamed format, the impact on the environment and the links to accessibility might be emphasised, in order to appeal to audiences motivated by these considerations.

### Conclusion

A music industry report published in May 2021, 'Livestreaming music in the UK', predicted that 'there is little doubt that the format [livestreaming] will continue to form part of the music industry post-COVID'.<sup>23</sup> Other industry experts and publications imagine a similar, permanent, change in the industry,<sup>24</sup> and many organisations have already established programme series which offer their events in both live and livestreamed performances (e.g. Wigmore Hall).

The study discussed in this chapter suggests that audiences do have some similar, and some different, motivations concerning whether they

<sup>23</sup> Julia Haferkorn et al., 'Livestreaming' (2021), p. 50.

<sup>24</sup> See e.g. Hattie Collins, 'Once Lockdown Lifts, Will the Music Industry be Changed Forever?', *Vogue*, 7 May 2020, https://www.vogue.co.uk/arts-and-lifestyle/article/ music-industry-recovery

attend live or livestreamed performance. Live performance may be more about having fun, and a good night out, sharing an experience with others, and the emotional experience of an in-person event. Livestreamed performance attendance may result from a desire to fill time in a meaningful way, or the sound quality on a home listening system. People's concepts of liveness include factors linked to their motivations to attend in person, such as the opportunity for interaction. However, liveness is also felt to be about the atmosphere and sense of immersion, being physically present, and having sensory experiences.

In terms of the advantages and disadvantages of live and livestreamed performance, some of the responses here have common primary themes, such as logistics, social interaction (or lack of) and factors which impact on the quality of the experience. However, the sub-themes for these are often very different; for example, the logistics theme for the advantages of livestreamed performance includes travel, whereas the thematic analysis of the disadvantages reveals sub-themes around the quality of internet connections and the home environment. Moreover, advantages of livestreamed performance may include considerations such as accessibility, impact on the environment and health and safety, which are not perceived to be advantages offered by in-person attendance. Parts of the experience that may be special to live event attendance might include the emotional response to such an event and the opportunity to share an experience.

There are multiple implications that may be derived from the survey findings discussed above for performers and organisers of music events. For example, if there is a desire to create a sense of 'liveness' in an online event, facilitating social interaction during the performance (perhaps by audience members being able to share comments or emojis as they watch) may be important. However, music industry stakeholders should also bear in mind that there may not be a need to replicate 'liveness' in a livestreamed event, as factors such as accessibility, sound quality and logistics (e.g. travel), and environmental concerns play a role in whether audiences choose to attend online, and indeed some prefer not to have to interact socially.

In light of this changed industry, and new forms by which audiences can experience music performance, it is vital that we understand what might motivate listeners to attend online performance. If organisations

intend this option to be chosen by listeners instead of in-person attendance, there is a need to understand which of the factors that people value in the live music experience might be replicable online. Future research might seek to explore the response to live and livestreamed experiences using other methods (e.g. physiological, neurological), and might also further examine whether specific groups of people might prefer one or the other form of attendance, and whether this changes in specific circumstances or for different events. There is also a chance for music venues, performers and event organisers to learn from other industries, for example, opera, ballet and theatre companies were already broadcasting performances live to cinemas pre-pandemic, for audiences to access locally, in real time. Also, the sports industry has a well-established format of broadcasting live events to bars and homes; communities and sports fans often gather to watch together, creating their own sense of a shared experience as they watch, and sense of occasion. However, research around the digital transmission of such events conducted pre-COVID-19 suggests that similar challenges remain to those discussed in this current chapter, for example, 'despite improvements in digital technology, traditional theatre and broadcasted theatre are two different experiences, not substitutes'25 and that experiences of live, compared to broadcast sports events, may result in differences in audience members' recall and levels of arousal.<sup>26</sup> Nonetheless, such examples of activity in other disciplines demonstrates there are opportunities to develop new, varied methods of creating some of the factors that people value in live music performance, such as the chance to interact with other people, and to feel a sense of immersion (for example, in a surround-sound cinema environment).

At the time of writing, live music performance has returned around the world, and numbers of performances are at an almost pre-pandemic level. Audience numbers are slowly returning to pre-pandemic levels, and it is expected that the live music industry will recover fully (albeit

<sup>25</sup> Daniela Mueser and Peter Vlachos, 'Almost Like Being There? A Conceptualisation of Live-Streaming Theatre, International Journal of Event and Festival Management 9:2 (2018), 183.

<sup>26</sup> François Anthony Carrillat, Alain d'Astous, François Bellavance, and François Eid, 'On 'Being There': A Comparison of the Effectiveness of Sporting Event Sponsorship Among Direct and Indirect Audiences', *European Journal of Marketing* 49:3-4 (2015).

some venues do still recommend face masks and cases of COVID-19 are not uncommon). However, some performers, organisations and venues continue to livestream performance, often alongside offering live attendance at events. For example, when the iconic 'Koko' venue in Camden, London reopened in Spring 2022 following fire damage, the rebuild included built-in facilities to livestream their live music events.<sup>27</sup> It seems that the question of whether livestreaming music events that are also offered live will become a permanent feature of the music industry post-pandemic is still an open one.

#### References

- Auslander, Philip, Liveness: Performance in a Mediatized Culture (Abingdon, Oxon: Routledge, 2008), https://doi.org/10.4324/9781003031314
- Bailey, Betty A., and Davidson, Jane W., 'Effects of Group Singing and Performance for Marginalized and Middle-Class Singers', *Psychology of Music* 33:3 (2005), 269-303, https://doi.org/10.1177/0305735605053734
- BBC News, 'Koko: Historic Camden Music Venue to Reopen After Fire', 21 October 2021, https://www.bbc.co.uk/news/uk-england-london-58992508
- Brown, Steven C., and Knox, Don, 'Why Go to Pop Concerts? The Motivations Behind Live Music Attendance', *Musicae Scientiae* 21:3 (2017), 233-249, https://doi.org/10.1177/1029864916650719
- Brown, Steven C., and Krause, Amanda E., 'Freedom of Choice: Examining Music Listening as a Function of Favorite Music Format', *Psychomusicology: Music, Mind, and Brain* 30:2 (2020), 88-102, http://dx.doi.org/10.1037/pmu0000254.
- Cabedo-Mas, Alberto, Arriaga-Sanz, Cristina, and Moliner-Miravet, Lidon, 'Uses and Perceptions of Music in Times of COVID-19: A Spanish Population Survey', *Frontiers in Psychology* 11 (2021), https://doi.org/10.3389/fpsyg.2020.606180
- Carlson, Emily, Wilson, Johanna, Baltazar, Margarida, Duman, Deniz, Peltola, Henna-Riikka, Toiviainen, Petri, and Saarikallio, Suvi, 'The Role of Music in Everyday Life During the First Wave of the Coronavirus Pandemic: A Mixed-Methods Exploratory Study',

<sup>27</sup> BBC News, 'Koko: Historic Camden Music Venue to Reopen After Fire', 21 October 2021, https://www.bbc.co.uk/news/uk-england-london-58992508

*Frontiers in Psychology* 12 (2021), https://doi.org/10.3389/fpsyg.2021.647756.

- Carrillat, François Anthony, d'Astous, Alain, Bellavance, François, & Eid, François, 'On "Being There": A Comparison of the Effectiveness of Sporting Event Sponsorship Among Direct and Indirect Audiences', *European Journal of Marketing* 49:3-4 (2015), 621-642, https://doi.org/10.1108/EJM-03-2013-0156
- Charron Jean-Philippe, 'Music Audiences 3.0: Concert-Goers' Psychological Motivations at the Dawn of Virtual Reality', *Frontiers in Psychology* 8:800 (2017), https://doi.org/10.3389/fpsyg.2017.00800
- Collins, Hattie, 'Once Lockdown Lifts, Will the Music Industry be Changed Forever?', *Vogue*, 7 May 2020, https://www.vogue.co.uk/arts-and-lifestyle/article/ music-industry-recovery
- Cross, Ian, 'Music and Communication in Music Psychology', Psychology of Music 42:6 (2014), 809-819, https://doi.org/10.1177/0305735614543968
- Earl, Peter E., 'Simon's Travel Theorem and the Demand for Live Music', Journal of Economic Psychology 22 (2001), 335–358, https://doi.org/10.1016/S0167-4870(01)00037-X
- Fink, Lauren K., Warrenburg, Lindsay A., Howlin, Claire, Randall, William M., Hansen, Niels C., and Wald-Fuhrmann, Melanie, 'Viral Tunes: Changes in Musical Behaviours and Interest in Coronamusic Predict Socio-Emotional Coping During COVID-19 Lockdown', *Humanities & Social Sciences Communications* 8:1 (2021), 1-11, https://doi.org/10.1057/s41599-021-00858-y
- Florida, Richard, and Seman, Michael, 'Measuring COVID-19's Devastating Impact on America's Creative Economy', Metropolitan Policy Program at Brookings, August 32 (2020).
- Granot, Roni, Spitz, Daniel H., Cherki, Boaz R., Loui, Psyche, Timmers, Renee, Schaefer, Rebecca S., Vuokoski, Jonna K., Israel, Salomon, "Help! I Need Somebody": Music as a Global Resource for Obtaining Wellbeing Goals in Times of Crisis', Frontiers in Psychology 12 (2021), https://doi.org/10.3389/fpsyg.2021.648013
- Gu, Xin, Domer, Nevin, and O'Connor, Justin, 'The Next Normal: Chinese Indie Music in a Post-COVID China', *Cultural Trends* 30:1 (2021), 63-74, https://doi.org/10.1080/09548963.2020.1846122
- Haferkorn, Julia, Kavanagh, Brian, and Leak, Samuel, 'Livestreaming Music in the UK: Report for Musicians' (2021), https://eprints.mdx.ac.uk/33787/1/Livestreaming%20Music%20 in%20the%20UK.pdf

- Hansen, Niels C., Treider, John M. G., Swarbrick, Dana, Bamford, Joshua S., Wilson, Johanna, and Vuoskoski, Jonna K., 'A Crowd-Sourced Database of Coronamusic: Documenting Online Making and Sharing of Music During the COVID-19 Pandemic', *Frontiers in Psychology* 12:2377 (2021), https://doi.org/10.3389/fpsyg.2021.684083
- Harris, M., Kreindler, J., El-Osta, A., Esko, T., and Majeed, A., 'Safe Management of Full-Capacity Live/Mass Events in COVID-19 Will Require Mathematical, Epidemiological and Economic Modelling', *Journal of the Royal Society of Medicine* 114:6 (2021), 290-294, https://doi.org/10.1177/014107(8211007750)

https://doi.org/10.1177/01410768211007759

- Henry, Noah, Kayser, Diana, and Egermann, Hauke, 'Music in Mood Regulation and Coping Orientations in Response to Covid-19 Lockdown Measures Within the United Kingdom', *Frontiers in Psychology* 12 (2021), https://doi.org/10.3389/fpsyg.2021.647879
- Krause, Amanda E., 'The Role and Impact of Radio Listening Practices in Older Adults' Everyday Lives', *Frontiers in Psychology* 11 (2020), https://doi.org/10.3389/fpsyg.2020.603446
- Krause, Amanda E., and Brown, Steven C., 'A Uses and Gratifications Approach to Considering the Music Formats that People use Most Often', *Psychology of Music* 49:3 (2021), 547-566, https://doi.org/10.1177/0305735619880608
- Krause, Amanda E., Davidson, Jane W., and North, Adrian C., 'Musical Activity and Well-Being: A New Quantitative Measurement Instrument', *Music Perception* 35:4 (2018), 454-474, https://doi.org/10.1525/MP/2018.35.4.454
- Krause, Amanda E., Dimmock, James, Rebar, Amanda L., and Jackson, Ben, 'Music Listening Predicted Improved Life Satisfaction in University Students During Early Stages of the COVID-19 Pandemic', Frontiers in Psychology 11 (2021), https://doi.org/10.3389/fpsyg.2020.631033
- Martínez-Castilla, Pastora, Gutiérrez-Blasco, Isabel M., Spitz, Daniel H., and Granot, Roni, 'The Efficacy of Music for Emotional Wellbeing During the COVID-19 Lockdown in Spain: An Analysis of Personal and Context-Related Variables', *Frontiers in Psychology* 12 (2021), https://doi.org/10.3389/fpsyg.2021.647837
- Mueser, Daniela, & Vlachos, Peter, 'Almost Like Being There? A Conceptualisation of Live-Streaming Theatre', *International Journal of Event and Festival Management* 9:2 (2018), 183-203, http://dx.doi.org/10.1108/IJEFM-05-2018-0030
- Onderdijk, Kelsey E., Swarbrick, Dana, Van Kerrebroeck, Bavo, Mantei, Maximillian, Vuoskoski, Jonna K., Maes, Pieter-Jan, and

Leman, Marc, 'Livestream Experiments: The Role of COVID-19, Agency, Presence, and Social Context in Facilitating Social Connectedness', *Frontiers in Psychology* 12:1741 (2021), https://doi.org/10.3389/fpsyg.2021.647929

- Packer, Jan, and Ballantyne, Julie, 'The Impact of Music Festival Attendance on Young People's Psychological and Social Well-Being', *Psychology* of Music 39:2 (2011), 164–181, https://doi.org/10.1177/0305735610372611
- Perkins, Rosie, Kaye, S. L., Zammit, B. B., Mason-Bertrand, Adele, Spiro, Neta, and Williamon, Aaron, 'How Arts Engagement Supported Social Connectedness During the First Year of the COVID-19 Pandemic in the UK: Findings from the HEartS Survey', *Public Health* 207:1208 (2022), https://doi.org/10.1186/s12889-021-11233-6
- Rendell, James, 'Staying In, Rocking Out: Online Live Music Portal Shows During the Coronavirus Pandemic', *Convergence* 27:4 (2021), 1092-1111, https://doi.org/10.1177/1354856520976451
- Ribeiro, Fabiana S., Araujo Lessa, João P., Delmolin, Guilherme, and Santos, Flávia H., 'Music Listening in Times of COVID-19 Outbreak: A Brazilian Study', *Frontiers in Psychology* 12 (2021), https://doi.org/10.3389/fpsyg.2021.647473
- Schäfer, Katherina, and Eerola, Tuomas, 'How Listening to Music and Engagement with Other Media Provide a Sense of Belonging: An Exploratory Study of Social Surrogacy', *Psychology of Music* 48:2 (2020), 232-251, https://doi.org/10.1177/30575618795036
- Schäfer, Katherina, Saarikallio, Suvi, and Eerola, Tuomas, 'Music May Reduce Loneliness and Act as Social Surrogate for a Friend: Evidence from an Experimental Listening Study', *Music & Science* 3 (2020), https://doi.org/10.1177/2059204320935709
- Taylor, Iain A., Raine, Sarah, and Hamilton, Craig, 'COVID-19 and the UK Live Music Industry: A Crisis of Spatial Materiality', *The Journal of Media Art Study and Theory* 1:2 (2020), 219-241.
- Tsangaris, Michael, 'The Eternal Course of Live Music Views and Experiences of an Audience', in *The Future of Live Music* (New York: Bloomsbury, 2020), pp. 197-208, http://dx.doi.org/10.5040/9781501355905.0022
- Vidas, Dianna, Larwood, Joel L., Nelson, Nicole L., and Dingle, Genevieve A., 'Music Listening as a Strategy for Managing COVID-19 Stress in First-Year University Students', Frontiers in Psychology 12 (2021), https://doi.org/10.3389/fpsyg.2021.647065