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Live music imaginaries in the reception of online popular music concerts

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Abstract

This article critically interrogates a range of themes in writing about online popular music performances. It uncovers dominant conventional narratives, experiences, and understandings of online concerts, captured under the term 'live music imaginaries'. Recent scholarship, journalism, and other commentary typically emphasise the limitations of online music events compared to in-person performances. Most pressingly, online concerts are pervasively viewed as merely a temporary lifeline for live music during the COVID-19 pandemic. They need not be. Commentators also frame technology as determining online performance practices, based on speculation about some inevitably virtual future of entertainment. Yet the history and variety of online concerts as a media form and cultural practice are under-considered. By highlighting and evaluating the historically and culturally situated live music imaginaries that shape the experience of online concerts, this article sets the stage for a theoretical reframing of the value of online music events.

Keywords

Concert experiences, fandom, live music studies, livestreaming, music performance, online music cultures, virtual concerts

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Introduction

Over 30 years since computer scientists first livestreamed music via the Internet, the idea of performing and listening to live music online has gained widespread popularity. Technologies have significantly evolved since Xerox and Digital Equipment Corporation staff transmitted rock band Severe Tyre Damage via the MBone in 1993 (and part of a Rolling Stones show in 1994), yet the principle remains broadly the same: online music performance is a means by which artists can play music and broadcast it to remote audiences on the Internet. Music played and streamed online in (close to) real time bears some resemblance to performances broadcast by radio, and today many radio stations also transmit audio on the Internet, somewhat blurring the boundaries. Yet online performance, aside from using fundamentally different technology to radio, has a separate history and carries unique connotations for artists and audiences.

Many people think of online music performance as a means to replicate the live in-person concert experience. Why this should be the case is not obvious. However, there is precedent for reflecting on familiar practices in past adaptations to new musical technologies. For example, phonographic recordings once garnered confusion over whether they should be used to faithfully reproduce a real performance in situ, appear to capture and enhance actual sounds, or entirely construct an acoustically impossible soundworld (Chanan, 1995; Clarke, 2002: 187–188). Indeed, standards have still not entirely settled. Recording practices continue to vary by genre today, informing different paradigms of musical authenticity. It seems that online performances present a similar bind: should they be trying to re-create live performance experiences, as many suggest (and if so, what kind of in-person experience?), or might online mediation afford new ways of musicking?

In this article, I identify common themes in writing about online music concerts, evaluating the extent to which criticisms of online performances are well-founded. I uncover dominant conventional narratives and understandings in the reception of online concerts, captured under the term 'live music imaginaries'. Recent scholarship, journalism, and other online commentary typically emphasise the limitations of online events in contrast to romanticised views of in-person live music performances. Online concerts are frequently written off as a short-lived means of connection during the COVID-19 pandemic, treated as superficial novelty, or dismissed as inherently inferior to traditional gigs, sometimes by prominent music critics. Commentators also frame technology as variously determining, enabling, or inhibiting online performance practices, informed by speculation about the perceived inevitability of all entertainment and media experiences becoming virtual. The repeated refrain of technological progress in discourses around online concerts warrants approaching them as sociotechnical phenomena, associated with other instances of the platformisation of music culture. Dominant views tend to overlook distinctive functions that online concerts afford (and for whom), reflecting assumptions about the value of live performance more generally. By articulating these live music imaginaries, and abductively identifying counternarratives, I pave the way to a more balanced account of online concerts' potential to foster new forms of artist-audience connection, accessibility, and sustainability.

From in-person to online concerts

Concerts, defined simply as popular music performance events, have received academic scrutiny in a range of fields, with the most sustained attention in popular music studies and performance studies. Much scholarship has revolved around theorisations of liveness, an essential but contested quality of concerts. Philip Auslander (2022: 2–7) critically examines the idea that there is something inherently ‘magical’ or ‘more real’ about live performance which dissipates in the presence of media technologies. Building on his work, Matthew Reason and Anja Mølle Lindelof (2016: 6) highlight several varying conceptions of liveness, or ‘liveness-es’, whereas Karin Van Es (2016: 21), re-evaluating postmillennial media theory about the Internet, identifies ‘particular constellations of liveness’. Generally, approaches to popular music concerts are founded on aspects of what Sanden (2019: 178) calls a ‘traditional performance paradigm’, whereby musicians perform in real time to an audience in a shared space. While earlier definitions of the ‘live’ relied upon oppositional distinctions from the mediated or mediatised, Auslander (2022: 27–35) emphasises the variety of ways that this distinction has been blurred today. Indeed, modern gigs feature various technological interventions – from sound reinforcement systems (essential in most pop genres) to video screens of real-time camera feeds – which now easily fit widespread expectations of what a live music event is. Artists and audiences anticipate the ‘multimodal nature of performance’ (Pipe, 2019: 321), with visual, nonverbal, tactile, and other physical expressions forming part of the typical live experience.

However, certain aspects of the traditional performance paradigm persist in live music studies, which Will Straw (2023) calls ‘one of the liveliest and fastest growing fields in the broader domain of popular music studies’. Various complexities posed by the online mediation of live performance have been helpfully addressed in leading scholarship, yet online concerts offer a striking challenge: upsetting the assumption that performance takes place in a shared physical space. Chris Anderton (2021) helpfully addresses performances livestreamed on social media, pay-per-view events broadcasting both prerecorded and real-time shows, and immersive experiences which sometimes involve virtual reality (VR) technologies. And while he identifies livestreaming ‘maturing into a parallel industry’ (Anderton, 2021: 70) – a crucial point to which I will return – the frequently pessimistic terms of reference for online concerts also indicate the dominant positioning of the traditional performance paradigm in popular music.

A range of examples will clarify. Anderton (2021) describes the impact of the COVID-19 pandemic on the live music industry as ‘disastrous’ (68); in some formats, ‘the livestream apes the experience of a bricks and mortar gig’ (73); and while VR carries potential to simulate shared space, to ‘give close-up views of performers and give a sense of being onstage with them while they perform’ (75), unfortunately, ‘events in VR cannot replicate the underlying social experience of attending a festival: the excitement of being co-present with others in close physical proximity’ (76). It is not entirely clear that the goal of online music performance should be to reproduce the in-person concert experience, or why the sector must necessarily ‘return to “business as usual”’ (69): it is simply taken for granted. My aim here is not to nitpick about colleagues’ use of language. Rather,

my point is that COVID-19 restrictions on live concerts and the accompanying period of experimentation with online performance reveals a range of traditional values that privilege certain types of in-person experience. Essentially, the spectre of conventional ideas about liveness and performance – specific live music imaginaries – continues to haunt even the most insightful scholarship on online live music and is more visible still in journalistic and popular writing.

By contrast, academic engagement with online concerts on their own terms – not merely as COVID-19-era substitutes – remains limited. At the same time, the rush to 'return to normal' (understandably voiced by precarious artists, promoters, and other stakeholders in the traditional live economy) risks overlooking lessons in accessibility and sustainability that emerged during the pandemic. As live music studies is being consolidated by landmark texts such as Anderton and Pisfil's (2021) *Researching Live Music*, Paula Guerra and Samuel Lamontagne's (2023) *Ethnomusicology Review* special issue, and the launch of Intellect's *Journal of Live Music Studies*, it seems timely to examine assumptions about what live music is, should be, and who it serves. Guerra's (2023) review of Anderton and Pisfil's *Researching Live Music* rightly lauds that 'the authors stay away from a romanticized vision of the relevance of studies on live music'. Extending this line of thought, closer critical examination of the romanticisation of live music itself may deepen our perspectives further still.

To situate this work, I have attended 21 online concerts in a variety of formats, participated regularly in livestreaming music communities on Twitch and watched dozens of recordings of online concerts from various artist, attendee, and broadcast perspectives. At each event, I took detailed notes on the audiovisual experience, artist performance styles, technical aspects of the event and interfaces, participatory dynamics, interactive elements, and (partly imagined) interpersonal connections, in addition to promotional materials, write-ups, and reaction videos. Observations based on my immersion in online music events inform the discursive work directed towards academic, journalistic, and other online commentary below. Most events were hosted in the United Kingdom, the United States, and Australia, streamed to an English-speaking audience, but a small handful of international examples, especially from mainland Europe and South Korea, allow a broader purview on the live music imaginaries I discuss. All events I directly attended could be straightforwardly associated with popular music, with an emphasis on pop, hip hop, metal, indie rock, and singer-songwriter, complemented by a few recordings of contemporary classical and operatic performances that were originally streamed online.

This article is primarily influenced by two recent research interventions. First, it draws on the approach taken in David Hesmondhalgh's (2021) influential piece addressing academic and public debate on the digitalisation of music culture. At a pivotal moment in music streaming research, he identified five themes – 'myths and anxieties' – concerning the effects of new streaming technologies on everyday music practices. Here, I similarly interrogate commentary on online concerts and indicate potential course-corrections considering their place in cultural life, supplemented by 4 years of hybrid ethnography (Przybylski, 2021) and technocultural critical discourse analysis (Brock, 2018). Second, this article follows Billard and Lee's (2025) provocation to rethink qualitative methods using abductive logic, theory-driven approaches, and

qualitative-specific standards of rigour. Here, I heed their call to set about 'anomaly hunting' in the reception of online concerts, i.e. examining conventional values to tease out surprising observations that warrant further theoretical attention.

I identify values applied to online music performances in a selection of 91 online texts and 68 academic publications. Sources were chosen for inclusion based on clear relevance to the topic, found using keywords such as 'online concert', 'livestream' (then filtering for music), 'virtual concert', and evaluated manually for rigour, trying to avoid obviously AI-generated text, to focus on human-expressed values. Online texts include concert reviews, articles aggregating forthcoming events, commentary pieces, and blog posts by fans. Text was tagged individually by a single researcher, with academic texts placed in broader categories by a research assistant, then themes identified abductively and cross-referenced with research notes.

By far the most prevalent perspective is viewing online concerts merely as a COVID-19 era lifeline for live music: a short-lived, unfortunate necessity. Other common salient themes include:

- The irreplaceability of the idealised, in-person live music experience;
- Online concerts being inherently limited by technical obstacles, which are only occasionally overcome;
- The development of online concerts being principally driven by technological innovation and spectacle; and
- Viewing online concerts as the inevitable future of artist–audience connection.

These views are strikingly common, and their ubiquity leaves little room for counter-narratives. Found only rarely in journalistic and scholarly writing, but meriting further consideration in future work, are ideas concerning:

- Various uniquely enjoyable audiovisual and social aspects of live music online;
- The actual experiences of artists, audiences, and organisers of online concerts; and
- Potential accessibility and sustainability benefits of online concerts, particularly thinking about who they may serve.

Although the dominant themes (and much more rarely the counterthemes) are often combined in practice, I address them individually below. I call these themes imaginaries, drawing on work on digital media platforms interested in 'the ways in which social actors understand, envision, and orient themselves toward a particular phenomenon' (van Es and Poell, 2020: 3). It is a helpful term in this case, where commentary almost always examines online concerts in comparison to far more established, in-person performance practices. In other words, this framing provides important connective tissue between what concert attendees expect to experience and what they actually experience as live music becomes mediated by online platforms. Furthermore, much of the commentary about online music events relies on ideas of technology and temporality – the technical capacities of online concerts at earlier stages of development, their future potential, and so on – warranting consideration of distinctly *sociotechnical* imaginaries (Mager and Katzenbach, 2021). This study draws influence from previous work on the

sociotechnical dimensions of music platforms, especially Muchitsch et al. (2025) on musicians' experiences of streaming and social media platforms. Relatedly, my use of the term live music imaginaries attempts to capture the depth and breadth of how stakeholders understand, experience, and value online concerts and articulate beliefs about them in writing.

Online concerts as a short-term substitute for live music during COVID-19

Restrictions on in-person live music events due to COVID-19 health and safety regulations inspired a range of online performance practices. There is a conventional history of performance in 2020 and 2021 told in music industry journalism: first, musicians took to social media in droves with impromptu, amateurish, at-home livestreams; next, rescheduled shows led to performances broadcast from empty venues, studios, or soundstages; later, artists developed sophisticated pay-per-view online concert experiences. Finally, writers hopefully looked ahead 'for the sector to return to "normal"' (Mulligan, 2020). In this narrative context, three subthemes emerge, worth attention in turn: online concerts as a reaction to COVID-19, cultural survival and solidarity, and artist precarity.

In March and April of 2020, there was particularly widespread reportage which viewed livestreaming as a brand-new phenomenon, one emerging purely in response to the pause on in-person events. Presenting this idea neutrally in *the Guardian*, Imogen Tilden (2020) writes that 'with concert halls and opera houses closed, organisations and musicians across the world are livestreaming concerts'. Others evoke ideas of replacement, such as observing that livestreaming – '"a new genre, a new form of entertainment"' according to one Bandsintown executive – 'has taken over in the COVID-induced absence of live music' (Millman, 2020). Online music experiences are consistently framed as a sudden 'workaround' (Bodegon-Hikino et al., 2021) to conventional concerts, the pandemic having 'forced the development of new [. . .] methods to create online music performances' (Bratus et al., 2022: 178), rather than a well-established or pre-existing tradition. Femke Vandenberg et al. (2021: 5142) describe the online migration of live performance as almost inevitable in noting that 'when venues closed, there was little choice but to shift focus to the free and accessible livestreaming services of Facebook, Instagram and YouTube'. This is surprisingly myopic given the variety of pre-existing online performances. I mentioned the birth of the form in the early 1990s, but it was already a popular activity by the mid-2010s: YouTube Live ran in November 2008; Twitch, perhaps the most prominent livestreaming platform, added Music as a category in 2015; Instagram Live had facilitated performances since 2017 (Thomas, 2020: 86); and Open Pit had been running music festivals using Minecraft since 2018 (Gordon, 2019).

Assumptions that online concerts are a new and short-term alternative are not only held by commentators but also by industry bodies such as PRS, which instantiated an interim licencing rate, the 'Online Live Concert' licence, 'while the physical sector is facing restrictions on its ability to operate as normal' (Paine, 2021). The inevitable return to conventional live music practices is invoked in indicating that 'the new rules are subject to change once gigs are fully up and running again' (Paine, 2021). Writing on Mexican audiences' responses to online concerts, Michaël Spanu (2022: 110) paints a picture of abject failure:

> Platforms such as YouTube, Twitch, and Facebook worked as digital venues. However, the possibilities they offered quickly fell short, as no sustainable business model emerged from the pandemic experiment, nor were people engaged in live music virtual content satisfied with it as a replacement or proxy for in-person events.

Commentary that imagines online concerts as a recently invented substitute frequently relies on romanticised ideas about community and social connection through music which have long been suspect in scholarship (Auslander, 1999: 55–57). Some evoke ideas of online concerts as necessary to a sense of cultural survival, for example, citing ‘the flood of live streams that have popped-up to help us all through these challenging times’ (Cox, 2020), or artists who ‘remained determined to connect with fans through live music’ (Ahlgrim, 2020). Live music is thereby assumed to be a common social good (that all people desire and deserve access to), an important means of everyday human togetherness disrupted by pandemic self-isolation measures. Sometimes this sense of survival is more economically grounded: ‘the music industry experimented with online concerts and livestreaming as a way to stay afloat’ (Kappal, 2020). A sense of needing to sustain precarious arts and cultural sectors is prevalent in the United Kingdom and Australia (Whiting, 2023), where concern around the number of small venue closures is particularly prominent.

Consequently, online concerts are viewed as a necessity to ‘keep music alive amid coronavirus’ (Domanick, 2020), albeit in some cases barely even worthwhile. In the *New York Times*, David Peisner (2020) glumly concludes that ‘livestreaming may be an inelegant, unsatisfying remedy for live music’s absence, but . . . for now, it’s what we’ve got’. The assumed function of concerts to generate social connectivity is evoked widely, with livestreamed gigs providing ‘a much-needed creative outlet and sense of community for artists and fans alike’ (Savage, 2020). Yet artists are reportedly not fond of them, with Howard et al. (2021: 426–427) concluding that ‘online gigs lacked atmosphere and felt unnatural as environments in which to enjoy music’. This rather stark picture of inadequacy gives the impression that online concerts could hardly be interesting or valuable in their own right, but exist only in exceptional circumstances ‘to combat the “boredom” of self-isolation due to coronavirus’ (Savage, 2020).

These narratives are needlessly pessimistic given that artists frequently report positive experiences of online performances. For one significant counter-example, British pop artist L Devine describes a careful process of selecting several livestreaming services and customising performances to suit the idiosyncrasies of each platform on her ‘URL Tour’. In a *Billboard* profile by Nolan Feeney (2020), she reports planning the audiovisual aesthetics of her shows, receiving heartfelt messages from fans, and facilitating different kinds of real-time interaction. She also exceeded her goals concerning merchandise sales and fanbase growth. Although she admits she is ‘gagging to go back on tour’, since ‘performing to a responsive crowd is totally different’ (Feeney, 2020), this example is hardly the disappointing failure evoked by commentaries about bored, desperate, or reluctant artists.

Still, commentators are justified in noting that precarious artists face additional pressure without the expected revenue from cancelled shows. Some journalists encourage watching live performances and donating to artists in order to support them during this

period, in the model of online busking (Thomas, 2020: 88). In this way, online music events are portrayed as a necessary evil, as 'artists who relied on live performances and concerts suddenly had the rug pulled out beneath them' (Perez and Lunden, 2020). They are supposedly valuable only insofar as online performance keeps the spirit of art and culture alive, and artists financially stable: 'technology once deemed a novel addition to festivals and gigs has become a lifeline for performers wanting to connect with fans in lockdown' (Woods, 2020). Only occasionally do commentators acknowledge that livestreaming may offer more than 'just a hack that got us through the pandemic' (Schabel, 2021). Broadly, online concerts are hardly given much of a chance to prove themselves to be more than a short-lived, stand-in for live music, due in large part to a related live music imaginary: that the in-person concert experience is irreplaceable.

The irreplaceability of the idealised, in-person live music experience

Journalism and, to a lesser but still notable extent, scholarship are rife with uncritical exaltations of the live music experience. No poor sound quality, sticky floors, or drunk, bolshy strangers appear in such visions of the idealised concert: attending live music events is often imagined as a life-changing celebration of camaraderie, ineffable connectedness, and wonder. Illustrating this point, Knockengorroch Festival organiser Katch Holmes (2020) – even after a highly successful and enriching online festival – reflects that 'the full poetry of human contact will always be my priority, bringing people and music together in situ – breathing a shared place that binds us together through the land's geography, history and memories'. On the whole, during COVID-19, 'music lovers are left longing for that sense of emotional connection that comes from an inspiring performance' (McLeod, 2021), or for 'the singular bond with music that a concert provides' (Pareles, 2020b).

It is unsurprising that writers recall their favourite concert moments through rose-tinted glasses during a period of largely unprecedented disorder and loneliness. Yet reflections sometimes go beyond mere nostalgic memories, assuming that live music is universally transformative or transcendental. For instance, *Billboard* editor Nolan Feeney (2020) emphatically defines 'what live music is – everyone's in a room together for the same reason: to forget about the outside world'. Naturally, the suggestion of socially distanced concerts (among other variations on the in-person norm) violate this ideal, since live music is '"not a clinical space, it's about people coming together and enjoying a shared experience, not standing two metres apart on their own"' (Tom Baker in Iqbal, 2020). This comment invites a quick personal reflection: I, for one, actually love the idea of having more personal space in most venues and would pay to avoid strangers bumping into and brushing past me, or spilling drinks on my shoes (not to mention the epidemiological benefits, perhaps helping the traditional live industry recover more quickly).

Taking the life-changing narratives of gig attendance even further, it is sometimes assumed that concert-going is not only a privilege but a need for personal wellbeing, with Bratus et al. (2022: 178) asserting that 'the suspension of live events during the pandemic produced . . . individual psychological damage'. While it is understandable

for researchers to emphasise the social and emotional value of live music, claims that position it as an existential necessity are empirically unsubstantiated. Yet they are widespread in popular commentary. Musician John Grant (in Iqbal, 2020) supports the idea by stating (and not in the economic sense) 'we can't *live* without live music', and a musician interviewed by Green et al. (2022: 39) corroborates that 'music has a unique quality, which is the immediate effect on people, of saving your life in three or four minutes'.

This view is, as Mazierska et al. (2020: 8) put it, 'utopian'. In-person concerts are not only familiar, comfortable, and enjoyable, but euphoric, inspirational, necessary for survival. It hardly seems fair to expect an online music performance to satisfy artists and audiences if they can only see it as a 'simulacrum of their normal concert experience' or something 'mimicking some of the interactive qualities of a real concert' (Peisner, 2020). Yet the stark comparison persists: there is a striking bias inherent in the title of Shipman and Vogel's (2024) article, which concerns 'what is lost when cultural events go online'. Rahul Sinha (in Kappal, 2020), whose company organised a VR concert in 2020, similarly connects the idea of in-person concerts as a vital necessity to starkly second-best framing of online concerts: 'people are dying to go back to real life. VR and digital experiences are not a real replacement'.

In a psychological study, Venkatesan and Wang (2023: 3) highlight the essentially multisensory experience of in-person concerts, noting that 'the smell of the food and sweat of bodies in the crowd, the feel of people dancing together, and the musical vibrations that reverberate through one's body are all sensations that are missing in VR concerts'. Although they rightly emphasise varied embodied experiences of audiences, those cited are not typically primary motivating factors, as their own participant data on ranked senses reveal (Venkatesan and Wang, 2023: 10). After all, punters rarely reflect on the stench of food when recalling their favourite gigs.[1] Still, Gene Simmons of Kiss (in Shutler, 2020) – strangely, while promoting his band's 'record-breaking' livestream 'spectacular' – suggests that in-person concerts are an obvious, innate human preference: 'there's nothing like actually being in a room, watching your favourite band and feeling the heat and the excitement of other people. We're social animals'. If there is nothing like – nothing as sensorily stimulating as – the in-person experience, it seems inevitable that livestreams will feel like 'the next best thing to a live-music show' (Bernstein et al., 2020).

In reporting by the Guardian's deputy music editor Laura Snapes, the livestreaming community around Taylor Swift's *Eras* stadium tour features an intriguing combination of the romanticised traditional concert experience and new forms of digital connectivity. While emphasising the transcendental in-person ideal – with 'tens of thousands of people . . . having their own euphoric experience' – the enjoyment of livestream viewers seems to transcend the merely vicarious (Snapes, 2024). Snapes' (2024) interviewee Melissa Rogers reflects on the uncanny power of the concert's amateur real-time remediation alongside live chat: 'it's almost like being with everyone who's at the concert and getting to see their thoughts . . . I love when the livestreamers are screaming and singing because that's what it's supposed to be . . . I just feel very connected'. This example indicates some ways that the dominant live music imaginaries conceal the pleasurable potential of online interactions with (in this case, amateur online remediation of in-person) concerts: and, contrary to popular belief, no smelly food or shared body heat were needed.

Technical obstacles limiting online concerts

Although Internet-mediated performance can take many forms, some critics appear to have narrow conceptions about online concerts based solely on impromptu celebrity livestreams in March 2020. Music industry analyst Mark Mulligan (2020) simply states that ‘lots of the early stuff was scrappy and of patchy quality’. Others articulate this imaginary by expressing surprise at the success of more technologically sophisticated online performances, even where the technical capacity to produce them long precedes the pandemic era. For example, Amy X. Wang (2020) profiles Billie Eilish’s *Where Do We Go? The Livestream as* ‘the rare livestream done right’, which ‘punched up the ambitions of pay-per-view music’.

In general, many journalists are frustrated or disappointed by poorly produced performances livestreamed to social media, especially those who conceive of them as the only format for online performance. *New York Times* stalwart Jon Pareles is deeply unimpressed by ‘awkward’, ‘bare-bones livestreams’ (Pareles, 2020a), with ‘so much . . . lost when . . . over-the-top artists are crammed into screens’ (Pareles, 2020b). Again, the substitute imaginary – the comparison to a superior norm – is carried by the focus on what is lost. Bernstein et al. (2020) are only slightly more positive in describing a ‘cheerfully ramshackle performance. . . squeezed into the corner of a living room’. Despite noting something uniquely ‘fun about the social media concert trend’, former *Vox* Associate Culture Editor Allegra Frank (2020) also observes their ‘uncommonly casual air’ and mentions technical and performative frustrations: ‘the audio quality is usually poor or less than ideal, and many artists spend a lot of time distracted by the live chat’.

Disappointment about the limited technical ambition of online concerts, or their perceived awkwardness as an attendee, frequently appears hand-in-hand with negative assessment of DIY aesthetics. It is worth stating that DIY practices or aesthetics need not be inherently low-tech or ‘lo-fi’, especially online (Harper, 2014; Jones, 2021). Indeed, the other side of the ‘awkwardly amateur’ coin appears to be reifications of popular music performance authenticity. Many commentators laud the intimacy of domestic, direct-to-camera shows over the larger-than-life – perhaps excessively mediatised (Auslander, 2022) – stadium spectacles now common for the biggest popstars. There are novel artistic constraints associated with online busking (Thomas, 2020), where ‘part of the appeal might be seeing beloved musicians messing around in a low-stakes way, leaving all that image-making and sonic perfectionism far behind’ (Virtue, 2020). Yet others are unconvinced. Pareles (2020b) quips that ‘if low-tech, livestreamed performance has made anything clear, it’s this: intimacy is overrated. I hardly need to see any musician that closely’. Clearly, expectations around conspicuous amateurism and artistic spectacle remain deeply tied to the performance conventions of different genres (Kjus et al., 2022: 9–12). One might think that at-home, DIY performances streamed online would satisfy aspects of traditional rock ideology – the sense that ‘the less technology lies between [performance and audience] the closer they are, the more honest their relationship and the fewer the opportunities for manipulation’ (Frith, 1986: 266–267) – but their screen-based transmission appears to be the ultimate technological barrier. It sometimes seems like online concerts simply cannot satisfy anyone: too direct and casual is low quality,

awkward, amateurish; too conspicuously mediated by technology feels hyperreal, unnatural, inauthentic.

Some live music scholars – likely well-meaning advocates for the in-person industry – seem to rule out any potential value associated with online performances, citing technical issues as 'a fatal deficiency of live streams' (Green et al., 2022: 45). Although Green et al. (2022: 46) mention that technological developments may lessen these issues over time, they also indicate that 'other limitations are inherent to online spaces'. This imaginary provides grounds for bold and immediate dismissal: online performance simply cannot suffice, and a return to normal must be sought, for the more familiar 'reliance on technology' (Green et al., 2022: 45) implicated by in-person concerts. Even without the imperative to defend in-person concerts, other researchers indicate that neither present nor future technologies can create the physical co-presence apparently necessary to the live music experience (here combining technical barriers with the irreplaceable in-person ideal). From a psychological motivation perspective, Jean-Philippe Charron (2017) suggests that 'live performances retain some elements of uniqueness that cannot be reproduced [digitally], such as *being there*'. This imaginary about the inherent technical barriers to online concert experiences risks under-recognising previous research that demonstrates how feelings of belonging, togetherness, and liveness are afforded by online communities (e.g. Boyd, 2014; Papacharissi, 2010), including work on shared music experiences specifically (e.g. Bennett, 2012; Kent and Ellis, 2015). As the Taylor Swift livestreams example showed, physically being there in-person is not essential to meaningful experiences of live music.

Nonetheless, commentators are right to highlight practical barriers to performing and listening live online. It is worth remembering that the technologies taken for granted in countries with strong Internet connections are not accessible worldwide (nor is Internet access equally available across demographic groups). Widespread, tangible technical inequities persist. For one example, 'streaming videos is largely a luxury on the African continent because of the high cost and low quality of Internet data' (Hamelo, 2021). For another, Florian Coppenrath's (2021: 10) work in Kyrgyzstan emphasises that 'not all digital services are equally available and used in all territories' and that political censorship may block user access. Such geographical and political limitations are rarely in the minds of technologists and music industry executives, however, whose ideas about online concerts frequently revolve around creative technical accomplishments and advancements.

Online concerts driven by technological innovation and spectacle

I have presented several live music imaginaries that emphasise the limitations of online concerts. Two significant strands of commentary present more optimistic narratives about music performances on the Internet, albeit valorising the role of technology in fairly conventional and narrow ways. First is commentary solely focused on technological developments: both that certain events represent technical feats and that the commonplace shortcomings of other online performances are fundamentally problems

requiring technological solutions. The second, that online concerts represent some inevitable future of live music as a cultural practice, is addressed in the subsequent section.

Many celebrations of online live music reflect on the innovations of technology to overcome barriers to performance and communication. Broad reports of 'obvious limitations based in technology' (Green et al., 2022: 44) risk inviting solutions from the computer technology sector, without necessarily considering the actual needs of artists and audiences. Discussion is dominated, however, by an enticing imaginary concerning the power of technical ingenuity to produce engaging concert experiences online: Stuart Dredge (2020) is excited by the 'sense of continued creative experimentation at the moment', celebrating 'a confluence of tech platforms, brand budgets and artist visions that's creating some good opportunities for prominent artists'. Others wax lyrical about the untapped potential of VR, such as a 'spectacle that was lauded by fans' (Perraudin, 2019) or where 'the creative possibilities are almost endless' (Kinsher, 2024), especially due to COVID-19 cancellations, as 'an unprecedented period of innovation and experimentation followed, creating a whole new virtual concert ecosystem' (Mulligan, 2021).

In *Rolling Stone*, Tim Ingham (2020) likens technology to magic in noting that, for one show, 'the ticketing, geo-locking, and other technical wizardry are running through DICE'. Some stories of live music executives forced to consider the potential of online opportunities – as though for the very first time – are surprisingly uncritical. Ingham (2020) continues: 'DICE CEO Phil Hutcheon says that he was initially skeptical about the perceived value of livestream music performances, before he started thinking about the pay-per-view nature of televised sporting events'. It is difficult to read such narratives separately from the conventionally heroic positioning of the technology industry (Ball, 2020; Becker, 2025), as if all this long-standing cultural practice needed to flourish was a wealthy businessman to learn about it.[2] Ric Salmon of ATC Management lays bare the neocolonial logic of unconstrained discovery and innovation: 'we're literally making this up as we go along, and there are no rules' (in Ingham, 2020). Salmon might as well have said 'move fast and break things' (Wyatt, 2021: 409). In this, and similar speculations about how technological advances will resolve the problem of online concerts, one sees how pervasively techno-utopian imaginaries (Jasanoff, 2015) have permeated the live music industry.

Although the general tone celebrates technological innovation, speculation about future developments of online music events is sometimes hamstrung by conventional thinking about in-person events. For example, Makena Rasmussen (2021) leans on sci-fi spiel describing how 'in the Metaverse, virtual humans are no longer bound by physical limitations. An artist can instantly change outfits in a virtual concert or transform the stage from an outer space realm to an underwater world'. Yet despite these rich imaginings, supposedly, 'the appeal of a virtual concert is similar to that of a live one' (Rasmussen, 2021). Similarly, the novel prospects of asking 'what would you want to do in Fortnite that you can't do in the real world?' meets fairly conventional economic reasoning in reflecting that 'virtual concerts give fans another way to express their fandom and support their favourite artists financially, *just like they would in real life*' (LeDonne, 2021, my italics). Leaving aside the real–virtual binary, there genuinely appears to be a lack of awareness of online event practices which – perhaps belabouring the point – existed in various forms, for many years, prior to COVID-19 (e.g. Gagen and Cook,

2016). Critics' unfamiliarity partially explains the short-term substitute imaginary, with the sudden popularity of new practices during the pandemic appearing to be all that there is: again quoting Rasmussen (2021), 'the coronavirus forced many artists to play virtual concerts in lieu of their live onstage performances in 2020'. Such commentary therefore confuses whether online performance is an area of untapped, incredible potential, or a necessary replacement while in-person events are on hold: a tension also emphasised by a related imaginary about the future of live music.

Online concerts as the inevitable future of artist–audience connection

In contrast to live music imaginaries that see online experiences as inherently limited or short-term stopgaps, one repeated strand of commentary invokes the inevitable success of online concerts as a popular cultural practice. Under this heading, I have bundled an interconnected theme about music industry speculation on how artists and audiences want to connect (or will want to connect in future), particularly predicting fan demand for online events. The key idea operating under this imaginary concerns *when,* not *if*, online concerts become an attractive technosocial proposition. For instance, Mandolin founder Mary Kay Huse (in Cirisano, 2021) advertises the potential of the livestreaming market to become 'exponentially larger than what the live-music market was'. And though optimism may have waned by 2023, when Mandolin shut down 'after burning through $17 million in just under three years', the company's statement held to the belief that 'market power will continue to shift toward' livestreaming platforms' profitability (King, 2023). Others share this vision of online concerts inevitably succeeding thanks to technological developments: 'as technology gets better and bandwidths increase, these engagements are going to just get bigger and better' (Phil Rampulla in LeDonne, 2021). These are essentially technodeterminist narrative framings (Cheney- Lippold, 2025), arguing for current cultural and economic foci based on visions of a technologically advanced future where online concerts satisfy expectations.

Nonetheless, commentators hold mixed and sometimes contradictory views when predicting the future of online music events. Although 'tech bros' rhapsodise about the almost magical potential of technical-scientific fixes (Crandall et al., 2021: 844), they are simultaneously unable to envisage the genuinely exciting things about online interactivity.[3] Online concerts are 'the future of entertainment in general', according to one Fortnite executive, and although an artist who collaborated with Fortnite lauds the 'the limitless possibilities of video games', they also adopt the in-person ideal in suggesting that 'it will never replace a live show in the traditional sense' (LeDonne, 2021). Consequently, a mixture of vague anticipation and stark disappointment is widespread. Philip Kinsher (2024) lauds the 'new sonic and lighting possibilities that would be impossible in real life', thereby 'blazing new territory in the musical metaverse'. That said, one particular example of a virtual concert simply 'wasn't a substitute for attending a live gig' (Kinsher, 2024). Even without the contradiction, there is a notable ambiguity, as in the nearly-self-aware subhead used by *The Verge*'s David Pierce (2022): 'nobody knows quite what live digital [online] music looks like, but almost everyone seems to agree it's going to be big'.

Financial predictions about the eventual profitability of the online concert market are especially speculative. For example, Pandora co-founder Tim Westergren forecasts livestreaming growing to ‘five or even 10 times that of the roughly $30 billion pre-pandemic live concert business’ (Peoples, 2020). Once again, colonial thinking about untapped potential emerges in statements like that of Greg Parmley of UK Live Music, who describes livestreaming concerts as ‘a new frontier’ (in Woods, 2020). Such excitement pairs well with imaginaries around technological innovation, with Wave (sometimes called WaveXR) investor David (Wu, 2020) anticipating ‘rapid advancement in the online capabilities of digital concerts from low budget streams to truly spectacular, culture defining events’.

Overall, technologists and investors assume that impressive, engaging online concerts will be driven by fan demand. Some reference evidence such as the Nielsen Music/MRC Data U.S. Music 360 report, despite audience interest sounding modest at best: ‘47% of music listeners feel it is important for the industry to offer livestream performances or virtual concerts’ (Peoples, 2020). Others simply assume that online events are what fans and artists want. More urgently, there is little consideration of who might be part of an online audience in particular, with missed opportunities to reach those who struggle to attend in-person events. Given the other common imaginaries that concern online concerts’ social and technical shortcomings, it is therefore surprising to see such optimism about audience demand. The belief in the inevitable success of online concerts aligns with other sociotechnical imaginaries about future social impact – foretelling a ‘digital revolution’ (Cirisano, 2021) – or assumptions based on how streaming technologies have affected practices of recorded music distribution and listening (Hesmondhalgh, 2021).

Moreover, if online concerts are seen solely as a technical problem requiring a technological solution, narratives of technological progress promise a resolution to current drawbacks in facilitating artist–audience connections. In other words: everyone will want this once the tech is good enough, which it eventually will be. It is this framing that Shipman and Vogel (2024: 127–8) lean on when concluding that they ‘expect competing digital technology to further aestheticise the online experience’. Still, this imaginary is deeply intertwined with assumptions that current technologies cannot satisfy connective purposes, conceiving of ‘online forms of socialising’ as ‘necessarily distanced and . . . reduced to typed or audio-only communication’ (Shipman and Vogel, 2024: 129). This myopic view reflects a broader trend in failing to engage with actual experiences of online concerts, especially among people who do not ordinarily attend in-person concerts. For some, typed and audio-only communication is a benefit, not a reduction. Nor is online socialising inherently limited to these forms: it is simply what has been encountered in a narrow scope and a narrow conception about what live music is. There is ample evidence to the contrary about the communicative and community-building power of online music events (Ng and Gamble, 2022). It remains the case, however, that the under-researching of online concerts reinforces a general observation from live music scholars that ‘understanding of concert audiences and their experiences and valorisations remains a comparatively underdeveloped area within popular music’ (Anderton and Goodge, 2025: 2).

Alternative live music imaginaries

By examining the most prominent live music imaginaries that characterise thinking about online concerts, I have highlighted how and why scholarly and journalistic approaches to online concerts have shown limited interpretive validity. Commentators frequently under-recognise or ignore the history of online concerts, underestimate their potential variety, and exaggerate their potential in techno-utopian terms. Writers frequently and mistakenly examine online performance purely as a COVID-19 era invention, with ideas of a sudden digital migration or substitution appearing widely in reportage and live music studies scholarship. Those protecting live music culture, from a range of stakeholder perspectives, are defensive against the risk of inadequate digital alternatives replacing traditional concerts, especially in countries where celebrated creative sectors have been weakened by the pandemic. Though this is an understandable concern, resistance to austerity should not blinker us to the diversity and strength of creative online music and media practices that also happen to resemble traditional performance practices.

As a remedy to the replacement framing, I suggest that more nuanced and context-sensitive study of online concerts would benefit from treating them as *something else*: not merely a traditional gig displaced online, nor simply as audiovisual content provided by a streaming service. They are not quite the same as playing video games either, even where game technologies and virtual elements form part of the event design. Rather, more is to be gained from approaching online concerts as a distinctly online interaction, embedded within the conventions of online cultures, both in and outside mainstream contexts (Gamble, 2024: 12). Yet this approach remains surprisingly rare. An accompanying forthcoming publication will adopt this perspective in addressing live music imaginaries concerning potential benefits of online concerts, with emphases on accessibility, sustainability, and distinctly online forms of connection.

Subverting the dominant live music imaginaries, it is important to consider how online concerts may enable live music experiences for those disabled from attending in-person concerts. Such thinking builds on work like that of Vik J. Squires, whose autism assessor assumed that their ‘autism was incompatible with metal, particularly concert environments’ (Squires, 2024: 119). Artist perspectives are also crucial to consider. With many musicians recently cancelling tours because of mounting costs, environmental impacts, and mental health concerns, online performances and alternative interactions with fans are worth further consideration (Whittaker and Wagner, 2025). Moreover, distinctly online socialities, such as the Wheelies nightclub in Second Life (Kent and Ellis, 2015) and Minecraft Music Festivals (Moritzen, 2025), demonstrate a rich variety of participatory interactions with music performance that challenge traditional ideas associated with liveness, mediation, and social connection on digital platforms.

This article and the subsequent piece therefore sit alongside – and reiterate – a call for more digitally literate studies of online performance events, such as the doctoral research (and associated publications) of Karina Moritzen (2022) and Nic Vigilante (2025). More sustained empirical work on the experiences of artists and users is needed. Only through deeper engagement with online cultural practices and digital media norms can scholarship adequately address the variety and value of experiences afforded by online concerts.

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Notes

1. This is not to deny that some people do value the experience of touch among crowds, especially on club dancefloors (García-Mispireta, 2023) or in moshpits (Riches, 2011).
2. Demonstrating the whims of short-term investment in online music experiences, DICE purchased DJ set broadcaster Boiler Room in 2021 only to sell it in 2025.
3. It is worth remembering that promising examples of online engagement with live music, such as the Taylor Swift livestreams, frequently emerge from fan culture rather than corporate projects.

References

Ahlgrim C (2020) Artists are playing live concerts from their homes amid the coronavirus outbreak – here's how to watch the best ones. Available at: https://www.businessinsider.com/live-private-concerts-coronavirus-watch-online-music-streaming-2020-3 (accessed 31 July 2025).

Anderton C (2021) Disruption and continuity: COVID-19, live music, and cyclic sociality. In: Anderton C and Pisfil S (eds) *Researching Live Music*. London: Focal Press, pp. 68–84.

Anderton C and Goodge P (2025) Alone in the crowd? Live music audiences and individual experience. *Popular Music* 44(2): 1–15.

Anderton C and Pisfil S (2021) *Researching Live Music: Gigs, Tours, Concerts and Festivals*. 1st ed. London: Focal Press. Available at: https://www.taylorfrancis.com/books/9780367405038 (accessed 22 July 2024).

Auslander P (1999) *Liveness: Performance in a Mediatized Culture*. 1st ed. London: Routledge.

Auslander P (2022) *Liveness: Performance in a Mediatized Culture*. 3rd ed. London: Routledge.

Ball J (2020) *The System: Who Owns the Internet, and How It Owns Us*. London: Bloomsbury.

Becker A (2025) *More Everything Forever: AI Overlords, Space Empires, and Silicon Valley's Crusade to Control the Fate of Humanity*. New York: Basic Books.

Bennett L (2012) Music fandom online: R.E.M. fans in pursuit of the ultimate first listen. *New Media & Society* 14(5): 748–763.

Bernstein J, Blistein J, Doyle P, et al. (2020) Quarantine comfort: the best livestreamed performances so far. *Rolling Stone*, 20 March. Available at: https://www.rollingstone.com/music/music-features/best-livestreams-coronavirus-970313/ (accessed 31 July 2025).

Billard TJ and Lee Y (2025) Once more, with fieldwork: rebuilding qualitative methods in communication research from the ground up. In: *75th annual international communication association conference*, Denver, CO, 12 June.

Bodegon-Hikino K, Palma G, Almazan I, et al. (2021) Breaking into the new normal: 20 virtual concerts in 2020. Available at: https://www.bandwagon.asia/articles/virtual-concert-show-dua-lipa-billie-eilish-bts-joji-justin-bieber-nct-sb19-alden-richards-woodz-tesseract-lamb-of-god-linkin-park-tomorrowland-new-normal-pandemic-quarantine-2020 (accessed 31 July 2025).

Boyd D (2014) *It's Complicated: The Social Lives of Networked Teens*. New Haven, CT; London: Yale University Press.

Bratus A, Caliandro A, Caruso F, et al. (2022) Musical performance during and after the COVID-19 pandemic: days of future passed? In:Agamennone M, Palma D and Sarno G (eds) *Sounds of the Pandemic*. London: Focal Press, pp. 176–190.

Brock A (2018) Critical technocultural discourse analysis. *New Media & Society* 20(3): 1012–1030.

Chanan M (1995) *Repeated Takes: A Short History of Recording and Its Effects on Music*. London: Verso.

Charron J-P (2017) Music audiences 3.0: concert-goers' psychological motivations at the dawn of virtual reality. *Frontiers in Psychology* 8: 800.

Cheney-Lippold J (2025) The silicon future. *New Media & Society* 27(7): 4164–4180.

Cirisano T (2021) As livestreaming goes mainstream, it could be survival of the biggest. *Billboard*, 29 January. Available at: https://www.billboard.com/pro/livestream-competition-touring-pandemic-live-nation-youtube/ (accessed 31 July 2025).

Clarke E (2002) Listening to performance. In: Rink J (ed.) *Musical Performance: A Guide to Understanding*. Cambridge: Cambridge University Press, pp. 185–196.

Coppenrath F (2021) *Dreams of 'Shooting Out': Hip-Hop Music Production in Bishkek in the Age of Streaming* (ZMO Working Papers 30). Berlin: Leibniz-Zentrum Moderner Orient.

Cox J (2020) 14 of the best live streams and online virtual concerts. Available at: https://www.whathifi.com/features/best-live-streams-and-concerts (accessed 31 July 2025).

Crandall EK, Brown RH and McMahon J (2021) Magicians of the twenty-first century: enchantment, domination, and the politics of work in Silicon Valley. *Theory & Event* 24(3): 841–873.

Domanick A (2020) From drive-in concerts to livestream raves, artists band together to keep music alive amid coronavirus. *Billboard*, 17 March. Available at: https://www.billboard.com/pro/coronavirus-drive-in-concerts-livestream-raves-artists-fans/ (accessed 21 August 2025).

Dredge S (2020) BTS 'Map of the Soul ON:E' online concerts sold 993k tickets. *Music Ally*, 13 October. Available at: https://musically.com/2020/10/13/bts-map-of-the-soul-one-online-concerts-sold-993k-tickets/ (accessed 31 July 2025)

Feeney N (2020) How L Devine pulled off the most inventive livestream series yet. *Billboard*, 2 April. Available at: https://www.billboard.com/pro/l-devine-url-tour-livestream-diary/ (accessed 21 August 2025).

Frank A (2020) How 'quarantine concerts' are keeping live music alive as venues remain closed. Available at: https://www.vox.com/culture/2020/4/8/21188670/coronavirus-quarantine-virtual-concerts-livestream-instagram (accessed 31 July 2025).

Frith S (1986) Art versus technology: the strange case of popular music. *Media, Culture and Society* 8: 263–279.

Gagen J and Cook N (2016) Performing live in second life. In: Whiteley S and Rambarran S (eds) *The Oxford Handbook of Music and Virtuality*. Oxford: Oxford University Press, pp. 191–209. Available at: https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199321285.001.0001/oxfordhb-9780199321285 (accessed 7 June 2021).

Gamble S (2024) *Digital Flows: Online Hip Hop Music and Culture*. Oxford: Oxford University Press.

García-Mispireta LM (2023) *Together, Somehow: Music, Affect, and Intimacy on the Dancefloor*. Durham, NC: Duke University Press.

Gordon L (2019) The best new music festival is in 'Minecraft'. *VICE*, 17 January. Available at: https://www.vice.com/en/article/the-best-new-music-festival-is-in-minecraft-fire-festival/ (accessed 17 September 2025).

Green B, Bennett A, Guerra P, et al. (2022) How live is live?: COVID-19, live music, and online performances. In:Woodward I, Haynes J, Berkers P, et al. (eds) *Remaking Culture and Music Spaces*. London: Routledge, pp. 34–46.

Guerra P (2023) Anderton, Chris, and Sergio Pisfil. 2022. Researching Live Music – Gigs, Tours, Concerts, and Festivals. London: Routledge. *Ethnomusicology Review* 24: 193–200.

Guerra P and Lamontagne S (2023) Introduction – contemporary music ecosystems' transformations: live music, the gig economy, and social changes. *Ethnomusicology Review* 24: 1–10.

Hamelo G (2021) Live performances around the world went virtual in 2020. *Ogojiii*, 10 June. Available at: https://medium.com/ogojiii/live-performances-around-the-world-went-virtual-in-2020-46708c89b864 (accessed 31 July 2025).

Harper A (2014) *Lo-Fi aesthetics in popular music discourse*. DPhil Thesis in Musicology, University of Oxford, Oxford.

Hesmondhalgh D (2021) Streaming's effects on music culture: old anxieties and new simplifications. *Cultural Sociology*. Epub ahead of print 16 June. DOI: 10.1177/17499755211019974.

Holmes K (2020) 'Virtually Knockengorroch' the festival season goes virtual: one promoter's perspective. Available at: https://livemusicexchange.org/blog/virtually-knockengorroch-the-festival-season-goes-virtual-one-promoters-perspective-katch-holmes/ (accessed 28 August 2025).

Howard F, Bennett A, Green B, et al. (2021) 'It's turned me from a professional to a 'bedroom DJ' once again': COVID-19 and new forms of inequality for young music-makers. *YOUNG* 29(4): 417–432.

Ingham T (2020) Why the future of livestreaming isn't about size or popularity. *Rolling Stone*, 26 May. Available at: https://www.rollingstone.com/pro/features/laura-marling-limited-livestreaming-1004936/ (accessed 18 August 2025).

Iqbal N (2020) Don't stand so close: how live music has changed its tune in lockdown. *The Guardian*, 16 May. Available at: https://www.theguardian.com/music/2020/may/16/dont-stand-so-close-how-live-music-has-changed-its-tune-in-lockdown (accessed 31 July 2025).

Jasanoff S (2015) Future imperfect: science, technology, and the imaginations of modernity. In: Jasanoff S and Kim SH (eds) *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. Chicago, IL: University of Chicago Press, pp. 1–33. Available at: https://www.bibliovault.org/BV.landing.epl?ISBN=9780226276663 (accessed 26 February 2025).

Jones E (2021) *DIY Music and the Politics of Social Media*. New York: Bloomsbury Academic. Available at: http://www.bloomsburycollections.com/book/diy-music-and-the-politics-of-social-media (accessed 7 June 2021).

Kappal B (2020) How virtual concerts became the new normal in 2020. Available at: https://www.livemint.com/mint-lounge/ideas/how-virtual-concerts-became-the-new-normal-in-2020-111608639129110.html (accessed 31 July 2025).

Kent M and Ellis K (2015) Live music in a virtual world: exuberant flourishing and disability at wheelies nightclub in second life. In: Jones AC and Bennett RJ (eds) *The Digital Evolution of Live Music*. Waltham, MA: Chandos Publishing, pp. 85–98. Available at: https://espace.curtin.edu.au/handle/20.500.11937/37869 (accessed 27 January 2022).

King A (2023) Mandolin shuts down after burning through $17 million in 3 years. *Digital Music News*, 21 April. Available at: https://www.digitalmusicnews.com/2023/04/21/mandolin-shutdown-burns-seventeen-million-three-years/ (accessed 18 August 2025).

Kinsher P (2024) 3 benefits of virtual concerts for artists. In: Disc makers blog. Available at: https://blog.discmakers.com/2024/09/virtual-concerts/ (accessed 31 July 2025).

Kjus Y, Spilker HS and Kiberg H (2022) Liveness online in deadly times: how artists explored the expressive potential of live-streamed concerts at the face of COVID-19 in Norway. *First Monday*. Epub ahead of print 4 June. DOI: 10.5210/fm.v27i6.12398.

LeDonne R (2021) 'Limits are non-existent in the metaverse!' Video game concerts become big business. *The Guardian*, 7 August. Available at: https://www.theguardian.com/music/2021/aug/07/no-limits-in-the-metaverse-video-game-concerts-big-business (accessed 31 July 2025).

Mager A and Katzenbach C (2021) Future imaginaries in the making and governing of digital technology: multiple, contested, commodified. *New Media & Society* 23(2): 223–236.

Mazierska E, Gillon L and Rigg T (2020) Introduction: the continuous significance of live music. In: Mazierska E, Gillon L and Rigg T (eds) *The Future of Live Music*. New York; London: Bloomsbury Academic, pp. 1–16.

McLeod R (2021) For some people, online concerts might actually be better than live ones. *Pocket Concerts*, 1 May. Available at: https://medium.com/pocket-concerts/for-some-people-online-concerts-might-actually-be-better-than-live-ones-d7f0d009701 (accessed 31 July 2025).

Millman E (2020) BTS just proved that paid livestreaming is here to stay. *Rolling Stone*, 16 June. Available at: https://www.rollingstone.com/pro/news/bts-paid-livestream-bang-bang-con-1015696/ (accessed 31 July 2025).

Moritzen K (2022) Opening up virtual mosh pits: music scenes and in-game concerts in Fortnite and Minecraft. *Journal of Sound and Music in Games* 3(2–3): 115–140.

Moritzen K (2025) Experimenting with the future of pop music through play: an interview with Umru on open pit, Minecraft and Hyperpop. In: Aksoy F, Fuhrmann JT, Kuhlmann A, et al. (eds) *Gestalten der Zukunft*. Baden-Baden: Nomos Verlagsgesellschaft mbH & Co. KG, pp. 189–200. Available at: https://www.nomos-elibrary.de/de/10.5771/9783748952237-189/experimenting-with-the-future-of-pop-music-through-play-an-interview-with-umru-on-open-pit-minecraft-and-hyperpop (accessed 31 July 2025).

Muchitsch V, Moura LA and Perevedentseva M (2025) Swimming upstream? Independent musicians and music platform imaginaries. *Journal of Popular Music Studies* 37(4): 19–41.

Mulligan M (2020) Who will own the virtual concert space? In: Music industry blog. Available at: https://musicindustryblog.wordpress.com/2020/08/28/who-will-own-the-virtual-concert-space/ (accessed 31 July 2025).

Mulligan M (2021) Virtual concerts: a new video format. In: Music industry blog. Available at: https://musicindustryblog.wordpress.com/2021/01/08/virtual-concerts-a-new-video-format/ (accessed 18 August 2025).

Ng J and Gamble S (2022) Hip-hop producer-hosts, beat battles, and online music production communities on Twitch. *First Monday* 27(6): 12338.

Paine A (2021) PRS for music introduces discounted rate for livestream licence following 'healthy debate'. Available at: https://www.musicweek.com/live/read/prs-for-music-introduces-discounted-rate-for-livestream-licence-following-healthy-debate/083204 (accessed 31 July 2025).

Papacharissi Z (ed.) (2010) *A Networked Self: Identity, Community, and Culture on Social Network Sites*. New York: Routledge.

Pareles J (2020a) 10 best quarantine concerts online. *The New York Times*, 21 July. Available at: https://www.nytimes.com/2020/07/21/arts/music/best-quarantine-concerts-livestream.html (accessed 31 July 2025).

Pareles J (2020b) Intimacy is overrated: concerts in the livestream era. *The New York Times*, 21 July. Available at: https://www.nytimes.com/2020/07/21/arts/music/livestreams-intimacy.html (accessed 20 August 2025).

Peisner D (2020) Concerts aren't back. Livestreams are ubiquitous. Can they do the job? *The New York Times*, 21 July. Available at: https://www.nytimes.com/2020/07/21/arts/music/concerts-livestreams.html (accessed 31 July 2025).

Peoples G (2020) Good news for livestreams: half of music fans want virtual concerts. *Billboard*, 6 October. Available at: https://www.billboard.com/pro/consumers-livestreams-virtual-concerts-music-360/ (accessed 31 July 2025).

Perez S and Lunden I (2020) Spotify is developing a 'virtual events' feature. *TechCrunch*, 26 August. Available at: https://techcrunch.com/2020/08/26/spotify-is-developing-a-virtual-events-feature/ (accessed 18 August 2025).

Perraudin F (2019) Marshmello makes history with first ever Fortnite in-game concert. *The Guardian*, 3 February. Available at: https://www.theguardian.com/games/2019/feb/03/marshmello-fortnite-in-game-concert-edm-producer (accessed 31 July 2025).

Pierce D (2022) The concert of the future is already happening in the metaverse. Available at: https://www.theverge.com/2022/10/3/23384883/concerts-metaverse-travis-scott-charlie-puth-iheartland (accessed 31 July 2025).

Pipe L (2019) 'I see you, baby. . .': expressive gesture and nonverbal communication in popular music performance education. In: Moir Z, Powell B and Smith GD (eds) *The Bloomsbury Handbook of Popular Music Education: Perspectives and Practices*. London; New York: Bloomsbury Academic, pp. 321–336.

Przybylski L (2021) *Hybrid Ethnography: Online, Offline, and in between*. Thousand Oaks, CA: Sage.

Rasmussen M (2021) Touring the musical metaverse: virtual concerts are here to stay. Available at: https://www.virtualhumans.org/article/touring-the-musical-metaverse-virtual-concerts-are-here-to-stay (accessed 31 July 2025).

Reason M and Lindelof AM (eds) (2016) *Experiencing Liveness in Contemporary Performance: Interdisciplinary Perspectives*. New York: Routledge.

Riches G (2011) Embracing the chaos: mosh pits, extreme metal music and liminality. *Journal for Cultural Research* 15(3): 315–332.

Sanden P (2019) Rethinking liveness in the digital age. In: Cook N, Ingalls MM and Trippett D (eds) *The Cambridge Companion to Music in Digital Culture*. 1st ed. Cambridge: Cambridge University Press, pp. 178–192. Available at: https://www.cambridge.org/core/product/identifier/9781316676639%23CN-bp-16/type/book_part (accessed 4 February 2025).

Savage M (2020) Pop stars live-stream concerts from home to combat isolation. *BBC News*, 17 March. Available at: https://www.bbc.com/news/entertainment-arts-51924765 (accessed 31 July 2025).

Schabel M (2021) Livestreaming failures hurt everyone. Here's how we can improve (guest column). *Billboard*, 23 June. Available at: https://www.billboard.com/pro/how-we-can-improve-livestreaming-mike-schabel-kiswe/ (accessed 21 August 2025).

Shipman A and Vogel A (2024) Streaming the festival: what is lost when cultural events go online. *Review of Social Economy* 82(1): 126–146.

Shutler A (2020) 'It's the biggest pyro show since Krakatoa': Gene Simmons on the kiss New Year's Eve spectacular. *The Telegraph*, 31 December. Available at: https://www.telegraph.co.uk/music/interviews/biggest-pyro-show-since-krakatoa-gene-simmons-kiss-new-years/ (accessed 31 July 2025).

Snapes L (2024) Wildest streams! Inside the fan-powered broadcasts of Taylor Swift's eras tour. *The Guardian*, 19 June. Available at: https://www.theguardian.com/music/article/2024/jun/19/wildest-streams-inside-the-fan-powered-broadcasts-of-taylor-swifts-eras-tour (accessed 31 July 2025).

Spanu M (2022) 'Why do they dance in the middle of the pandemic?' Post-pandemic Cumbia, mediated live music, and digital heritage from Mexico city. In: Agamennone M, Palma D and Sarno G (eds) *Sounds of the Pandemic*. London: Focal Press, pp. 110–124.

Squires VJ (2024) Stimming in the pit: how autistic heavy metal fans have remained unseen. In: Shadrack JH and Kahn-Harris K (eds) *Heavy Metal and Disability*. Bristol: Intellect, pp. 113–125. Available at: https://intellectdiscover.com/content/books/9781789389456.c08 (accessed 12 July 2024).

Straw W (2023) Afterword – moving forward with live music studies. *Ethnomusicology Review* 24: 181–185.

Thomas MD (2020) Digital performances: live-streaming music and the documentation of the creative process. In: Mazierska E, Gillon L and Rigg T (eds) *The Future of Live Music*. New York; London: Bloomsbury Academic, pp. 83–96.

Tilden I (2020) Lockdown listening: classical music and opera to stream at home. *The Guardian*, 29 July. Available at: https://www.theguardian.com/music/2020/mar/16/classical-music-opera-livestream-at-home-coronavirus (accessed 31 July 2025).

Van Es K (2016) *The Future of Live*. Cambridge, MA: Polity Press.

van Es K and Poell T (2020) Platform imaginaries and Dutch public service media. *Social Media + Society* 6(2): 2056305120933289.

Vandenberg F, Berghman M and Schaap J (2021) The 'lonely raver': music livestreams during COVID-19 as a hotline to collective consciousness? *European Societies* 23(Suppl. 1): S141–S152.

Venkatesan T and Wang QJ (2023) Feeling connected: the role of haptic feedback in VR concerts and the impact of haptic music players on the music listening experience. *Arts* 12(4): 148.

Vigilante N (2025) Performing decentralization: Web3 musical infrastructures and aesthetics. In: *Music & online cultures in a changing platform ecosystem*, Lisbon, 20 June, Music and Online Cultures Research Network.

Virtue G (2020) The best livestreamed gigs to watch at home during coronavirus. *The Guardian*, 19 March. Available at: https://www.theguardian.com/music/2020/mar/19/best-livestreamed-gigs-coronavirus-john-legend-chris-martin-code-orange (accessed 31 July 2025).

Wang AX (2020) Billie Eilish's virtual concert is the rare livestream done right. *Rolling Stone*, 26 October. Available at: https://www.rollingstone.com/music/music-live-reviews/billie-eilish-livestream-virtual-concert-1080748/ (accessed 31 July 2025).

Whiting S (2023) *Small Venues: Precarity, Vibrancy and Live Music*. New York: Bloomsbury Publishing.

Whittaker L and Wagner T (2025) Emerging patterns of participation in virtual live concerts: an initial study of UK audiences post-COVID. *IASPM Journal* 15(1): 58–80.

Woods B (2020) Pop stars keep the music playing with livestream concerts. *The Telegraph*, 13 November. Available at: https://www.telegraph.co.uk/business/2020/11/13/pop-stars-keep-music-playing-livestream-concerts/ (accessed 31 July 2025).

Wu D (2020) Introducing wave. *Medium*, 10 June. Available at: https://medium.com/@davewu/introducing-wave-a60e8e6deb2a (accessed 31 July 2025).

Wyatt S (2021) Metaphors in critical internet and digital media studies. *New Media & Society* 23(2): 406–416.

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