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Livestreaming Music in the UK

A Report for Musicians

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response to COVID-19

www.livestreamingmusic.uk

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1 Executive Summary

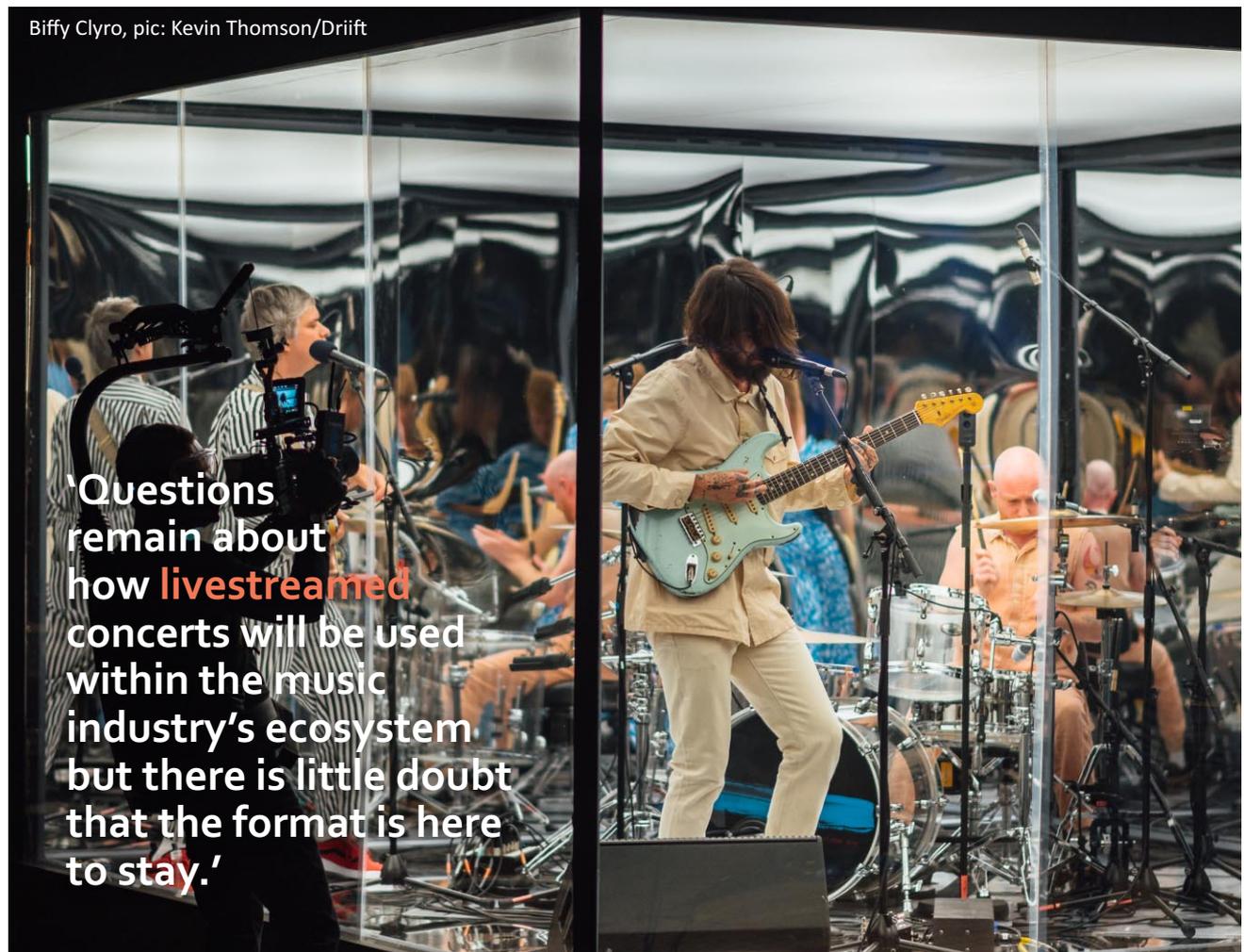
The aim of this research project is to share information on the practice of livestreaming concerts with musicians, with a view to enabling them to add livestreaming to their income-generating activities.

The COVID-related lockdowns have propelled many musicians into the livestreaming arena and the practice of livestreaming concerts continues to evolve rapidly. This report can only provide a snapshot of the current situation, as technological

innovation, potential changes in licensing, and the sharing of good practice will have an impact on how livestreaming is done in future.

The report serves in part as a guide to the practical matters of livestreaming, such as monetisation methods, platforms and technical and licensing aspects, and in part as an overview of current livestreaming practices. It also aims to outline the role that livestreaming is playing during the COVID pandemic and its potential role in a post-pandemic world.

There are five main themes that have emerged from the research project.



Five Main themes

1 Livestreaming makes live music accessible

A large market has emerged of audiences that are unable or reluctant to visit concerts in physical venues.

The lower cost of ‘attending’ a livestreamed performance and the ability to attend without having to travel means that live music fans can now access live music concerts that they weren’t able to experience otherwise.

Individuals benefitting from this include parents with young children/single parents, disabled or elderly people, people with little disposable income, people living far from a city with music venue, and people suffering from claustrophobia or social anxiety. Crucially, this means that livestreaming concerts accesses audiences that are not reached by live concerts in physical venues.

2 Emotional engagement matters

Both audiences and musicians highly value the emotional engagement that occurs during live performance.

Livestream viewers that feel connected to the performer(s) and fellow viewers watch more livestreams, while those that don’t feel connected watch fewer.

As it is difficult to replicate the type of communication in physical venues, new ways of engaging emotionally during livestreams are emerging. Online audience communities are forming around regularly livestreaming musicians across all genres, with community members providing emotional support to each other.

3 Audiences are willing to pay

The practice of livestreaming performances is still in its infancy and the value of livestreams is still under consideration.

Tickets to livestreamed performances were seen as less valuable than tickets to performances in physical venues. However, audiences broadly agreed

that livestreams should not be free to access and felt that the cost of accessing livestreams behind paywalls (i.e. those that can only be accessed through payment) didn’t constitute a barrier to watching livestreams. There was particular willingness to pay for livestreams of good audio and video quality, for livestreams from locations that would otherwise be out of reach, and for livestreams that made viewers feel more connected with the performer and other viewers.

4 Musicians are dissatisfied with income

Musicians’ biggest concern about livestreaming was not being able to earn enough income to make it worthwhile, particularly in the light of initially having to invest in technical knowledge and equipment.

While musicians with a large following are able to monetise livestreamed performances through ticket sales relatively easily, the majority of participating musicians were dissatisfied with the income they generated through livestreaming during the pandemic year. Livestreaming does have the potential to generate income for musicians, however, it needs to be seen as an additional rather than the main income source.

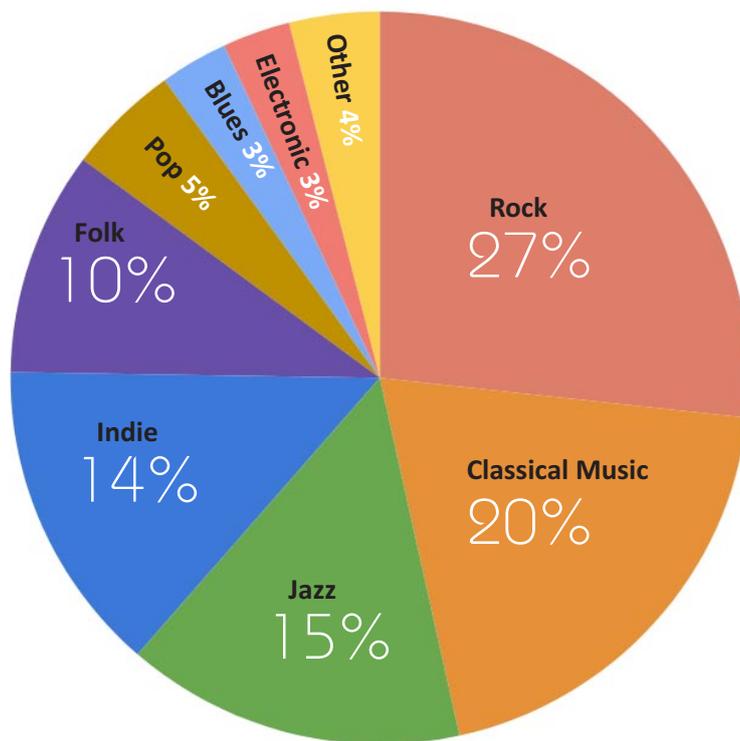
5 Livestreaming is here to stay

A large percentage of musicians and attenders broadly agreed that once venues are safely open again, livestreaming will be a significant part of the music sector’s landscape.

There was also agreement from both groups that livestreaming will be a successful tool for reaching new audiences from geographical locations the artist has not toured to and for reaching new audiences that might be reluctant or unable to visit physical venues.

Questions remain about how livestreamed concerts will be used within the music industry’s ecosystem but there is little doubt that the format is here to stay.

2 Gathering Information



- Main genres of concerts attended by participating attenders

The research project was carried out over a six month period (October 2020 to April 2021), by a small team of academic researchers. Information was gathered by the team by conducting a survey, carrying out interviews, and reviewing publicly available information on livestreaming, such as industry articles and publications by other researchers.

Throughout the research project and in this report ‘audiences’ are referred to as ‘attenders’. The term is used to distinguish people that actually attend concerts – in a physical venue or virtually – from those that consume music primarily in recorded form. The report also uses the term ‘pandemic year’, which for the purpose of the research, is defined as the period from mid-March 2020 (the start of the UK’s first lockdown) to mid-March 2021.

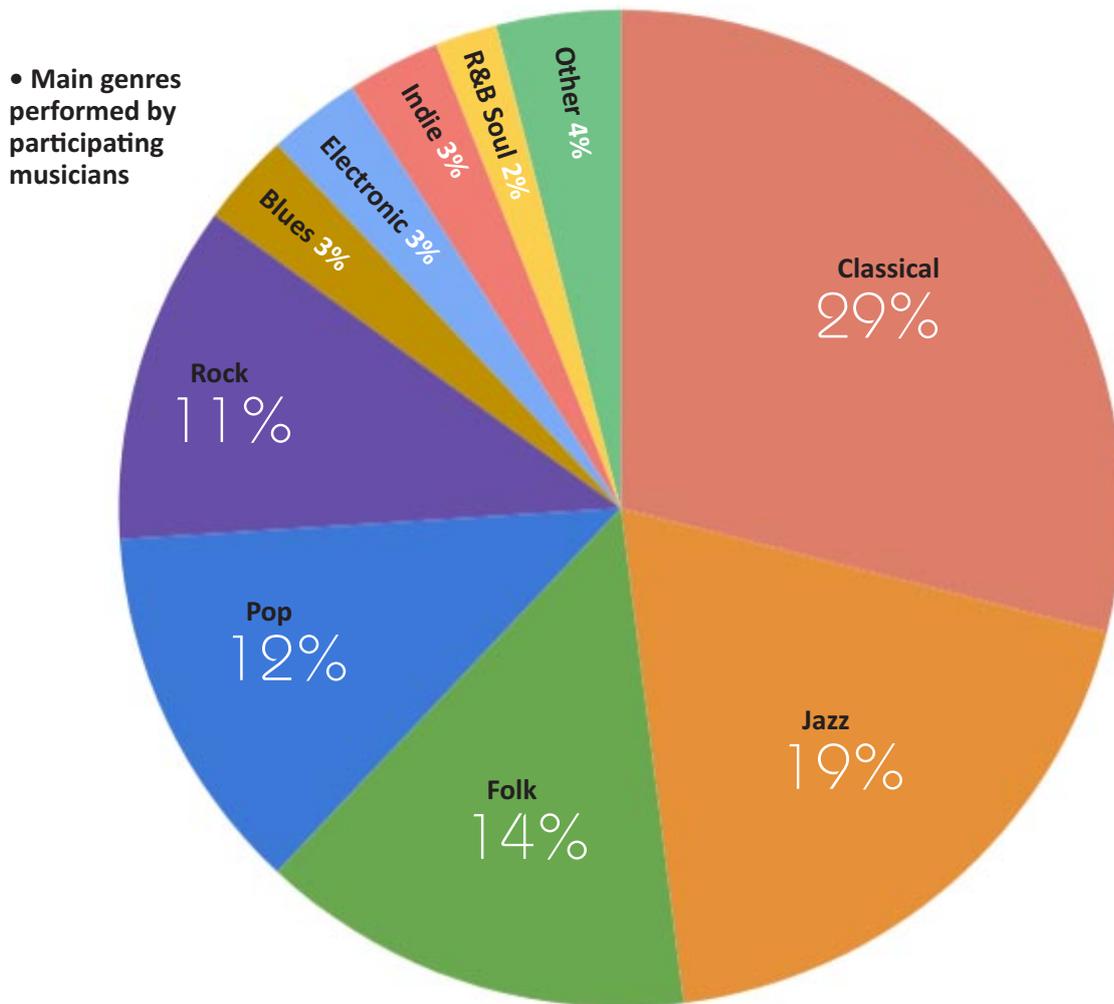
The in-depth survey was aimed at professional

musicians and live music performance attenders and was available online for a seven week period (13 January to 2 March 2021). It was critical to include concert attenders in the survey, as their views can help inform musicians’ attitudes towards livestreaming.

Through statistical analysis it was possible to model the relationship between several variables from the survey and the number of livestreams that had been performed, watched, and paid in the pandemic year. These findings are reflected throughout the report, and a detailed breakdown can be found on the project website.

To engage musicians and attenders, information about the project and a link to the survey was distributed by the project’s partner organisations – the Musicians’ Union, the Incorporated Society of

2 Gathering Information



Musicians, the Music Venue Trust, jazz promoter Serious, and the Sheffield Performer and Audience Research Centre.

To distribute the survey to a range of concert attenders across musical genres, the research team contacted over 200 concert venues in the UK, inviting them to distribute the survey to their mailing lists. The team also contacted over 20 music and arts publications with a request to distribute information on the project while also using social media to reach musicians and attenders via music and arts related groups.

A total of 1,484 participants completed the survey, which was conducted online. Of these, 777 (52%) identified as musicians, while 707 (48%) self-identified as attenders. Musicians were asked to register the main genre they performed, attenders the main genre of the concerts they attended.

69% of musicians were male and 30% female, with the remainder preferring not to say or selecting

'other'. The three main regions where musicians lived were Greater London (28%), the South East (17%) and the South West (11%).

For attenders, 55% were male and 44% female, with the remainder preferring not to say or selecting 'other'. The three main regions for attenders were Greater London (24%), outside the UK (15%), and the South East (14%).

Interviews were conducted with 5 musicians, 4 concert promoters, and 1 charity, representing a range of genres and locations. Information on musicians and organisations that participated in interviews can be found in the 'Profiles of Interviewees' section of the report. The team also worked with a spokesperson from PRS for Music to ensure accuracy in the licensing section of the report.

Lastly, the team reviewed over 50 music industry articles and publications by other researchers, to attain a deeper understanding of the role livestreaming plays within the music sector.

2 Profiles of Interviewees



Lucy Spraggan is an English singer-songwriter based in Chester.

She first came to prominence when she appeared on *The X Factor* in 2012 and has gone on to release six albums. Her latest album, *Choices*, was released in February 2021. She regularly tours in the UK and other countries and, in 2019, 35,000 tickets were sold for her UK shows.

She currently has 151,000 followers on Instagram, 383,000 on

Facebook, and 531,000 on Twitter, and 144,000 subscribers on YouTube. During the pandemic year, she performed two ticketed livestreamed concerts on the platform Veeps, attracting 1,000 and 600 viewers respectively.

During and immediately following her second livestreamed concert, she sold over 600 copies of her new album, propelling it to number 5 in the UK Albums Chart.

Livi in the Middle are a three-piece cover band from Sussex. They have regularly livestreamed their performances on Twitch for the past four years and, prior to the pandemic, occasionally performed at weddings and parties.

They livestream on four nights during the week as well as on two Saturdays a month and have 20,100 followers and 482 paying subscribers on Twitch.

They now earn enough from livestreaming performances to make it their main source of income.



2 Profiles of Interviewees (Musicians)



Dan Tepfer is a French-American jazz pianist based in New York.

He is probably best known for his 2011 album *Goldberg Variations / Variations* and his 2019 multimedia project *Natural Machines*. He has 12,000 followers on Facebook, 4,500 on Instagram and 4,500 on Twitter, and 2,750 subscribers on YouTube.

Since the start of the pandemic year, he has performed weekly, free-to-

access livestreamed concerts from his home, using the platforms Facebook, YouTube, Twitter, and Twitch. The series is called Dan's free Monday livestream, a place for experiments & remote connections.

Additionally, he has performed several ticketed livestreamed concerts on YouTube, presenting special projects and collaborations with other jazz musicians.

Dizzy DROS is a Moroccan rapper based in Gran Canaria. The video of his 2011 single *Cazafonia* has been viewed over 8.1 million times on YouTube.

His YouTube channel has 1.6 million subscribers and he has 1.1 million followers on Instagram. He has not performed any livestreamed

concerts, partly because of lack of a suitable venue and partly because of concerns about successful monetisation on platforms such as Instagram and YouTube.

Since the start of the pandemic, he has kept in touch with his followers by posting about a range of topics on Instagram.



SK Shlomo is an English beatboxer and live-looper based in North Hampshire.

He has collaborated with Björk and performed with artists such as Damon Albarn, Lily Allen, Jarvis Cocker, Imogen Heap, Martha Wainwright and Rudimental.

He has played the main stages at Glastonbury several times and, in 2007, he became the first non-classical Artist in Residence at London's

Southbank Centre. Since the start of the pandemic, he has performed weekly, free-to-access livestreams from his home, using Facebook, YouTube, and Twitch.

On New Year's Eve 2020, his livestreamed project *Rave to the Moon* attracted 24,000 viewers and raised over £11,000 for charity. He chooses not to ticket his livestreams, preferring to generate income from related activities.



2 Profiles of Interviewees (Organisations)



ATTITUDE IS EVERYTHING is a charity aiming to improve Deaf and disabled people's access to live music.

It works in partnership with audiences, artists and the music industry to increase the number of Deaf and disabled people participating in music and to raise awareness of the barriers they face at live music events, while highlighting how to overcome them. Their Access Guide to Online Music Events is a valuable resource for livestreaming musicians.



THE FULFORD ARMS is a pub and independent grassroots music venue in York, with a capacity of 150. It has been run and owned by Chris Sherrington since 2014.

Since the start of the pandemic, the venue has invested in technical equipment, making it possible to record artists performing in the venue.

To maximise use of resources, multiple concerts are recorded in a single session and later broadcast as recordings on the streaming platform themill.tv. The venue plans to livestream concerts occasionally in future.



LIVE TO YOUR LIVING ROOM is a livestreamed concert series presenting folk and roots artists, established by community musician and voice coach Cat McGill.

The series features several concerts a month and all events are livestreamed on Zoom. In advance of each concert, a mixing desk and a laptop are couriered in a flight case to the performer, enabling them to perform from their own homes, while a sound engineer mixes the sound for the livestream remotely.

Concerts are ticketed and attendees can choose from three tiers of pricing – standard, 'pay a bit less' and 'pay a bit more'. In February 2021, the concert by Scottish singer-songwriter Karine Polwart sold to maximum Zoom capacity, with 1,000 viewers attending the event.

The strapline of the concert

series is 'Top quality artists. Gig-quality sound. No queue at the bar.'

WIGMORE HALL

WIGMORE HALL is a classical music concert hall in London, specialising in chamber music and song recitals.

Since the beginning of the pandemic year, livestreamed performances have regularly been broadcast from the hall, without or with limited audience in the physical venue. The livestreams are free to access and available on YouTube, Facebook and Twitter.

The hall has raised 1 million Pounds from donations during the pandemic year, although this is substantially less than the typical annual income from ticket sales. All artists get paid full fees for their performances.

Wigmore Hall's highest audience number during a livestreamed performance was 98,000. Recordings of the livestreamed concerts are made available for 30 days after each broadcast, adding to the number of overall views.

Key Findings



4.1 Musicians' experience of livestreaming

During the pandemic year, an impressive 63% of participating musicians livestreamed a performance at least once.

For the UK overall this figure might, however, be lower, as musicians with an interest in livestreaming may have been more likely to have chosen to participate in the research project.

Amongst livestreaming participants, the frequency of performances during the pandemic year was wide ranging. Almost half of musicians performed just once or a handful of times, while 10% performed over 40 livestreams.

There was some frustration about being prevented from getting together with band or ensemble members to rehearse and livestream due to the social distancing measures but those musicians that managed to livestream were, perhaps surprisingly, overall positive about their livestreaming experience, particularly with regard to audio/visual quality, internet connection and staging of the streams.

A number of musicians expressed a visceral dislike

for livestreaming. Commonly used phrases included 'it's just not the same' and 'livestreaming can never replace live music in venues'. This dislike prevented some musicians from exploring the format, as they preferred to sit out the pandemic, in the hope that musical performances would soon resume.

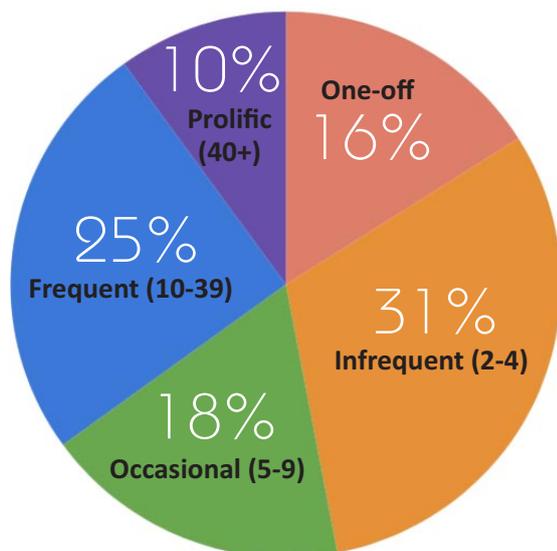
I'm just not that interested. It doesn't really appeal. I play music to perform, live to an audience, for me the idea of livestreaming doesn't do anything for me. I know that's foolish from an economical/career point of view, but that's just it - MUSICIAN

For musicians that had given livestreaming a try, the experience was often more positive than expected.

I could not livestream before March 2020, now I can do multi-camera, professional multitrack audio, to multiple stream platforms, recording the stream locally and online and recording multitrack audio locally. A year of learning! - MUSICIAN

Overall, livestreams are an extremely helpful tool for artists/musicians to maintain the interaction between the artist and the fan globally. Also, very important to have an extra income for the artists in these very trying times for the music business world - MUSICIAN

Livestreaming is a game changer and will be will us for many years to come - it offers us lots more opportunities to connect to an audience around the world from the comfort of our living rooms! - MUSICIAN



• Frequency of livestreaming

Nevertheless, some barriers to livestreaming remain, which need to be addressed if livestreaming is to establish itself as a long-term format within the live music sector.

4.1 Musicians' Experience of Livestreaming

Insufficient income compared to investment

Musicians' biggest concern about livestreaming was not being able to earn enough income to make it worthwhile. There was firm agreement from 83% of musicians that this was a barrier preventing them from livestreaming or livestreaming more.

Musicians' concern was not about the effort involved in livestreaming as such, which scored lower in the survey, but seemed about required effort and investment versus income gained.

Livestreaming involves an investment in developing new skills and in buying or hiring equipment, which is a substantial commitment to make against a backdrop of uncertain income. In the group of musicians with livestreaming experience, the dual role of having to be a technician and musician was mentioned frequently as particularly taxing, as was the problem of attracting a paying audience when many livestreams are offered without charge.

[Livestreaming is] lot of work and unless you have equipment/team behind you, very stressful when you are performing too. It at least triples the work needed to put on an event, with a very small financial reward - MUSICIAN

Setting up for high quality streaming involves a big outlay and/or hiring a team to film/produce/engineer. Low budget could work but needs imagination to capture a paying audience when there is so much free stuff out there - MUSICIAN

While generating income and the effort involved are concerns for the majority of musicians, they don't affect musicians with a substantial following in the same way. Having a large and loyal fanbase makes it more likely that musicians will be able to attract attendees to livestreams that are behind a paywall (i.e. only accessible against payment), thereby making it easier to monetise livestreams. English singer/songwriter Lucy Spraggan, who sold 35,000 tickets to her UK concerts in 2019, gave two



profitable livestreamed concerts in the pandemic year and was able to draw on support from a technical team for both events.

Another group of musicians that felt more confident about income generation were those with a track record in livestreaming in pre-pandemic times, as they had already established their technical set-up and accrued livestreaming experience.

Cover band Livi in the Middle, who have been streaming on Twitch for over four years, have seen their income rise since the start of the pandemic, potentially due to a rise of interest in livestreamed concerts from attendees, and they now earn enough from livestreaming to make it their main source of income.



4.1 Musicians' Experience of Livestreaming

Lack of technical equipment and technical knowledge

Lack of technical equipment was a considerable concern for musicians and there was also some concern about lack of technical knowledge. These concerns were even more keenly felt by musicians that had never livestreamed.

Many of my colleagues have purchased lots of expensive equipment to produce anything nearing a professional standard of recording. My unwillingness to purchase this equipment has made me feel like I'm further and further behind the curve, especially as the pandemic drags on and on - MUSICIAN

I desperately need a quality DSLR camera to get professional quality visuals to make it feel like ticket buyers are getting a decent show. Without it I'm paying sound and visual techs to do my shows - MUSICIAN

Several of the musicians that were able to invest in technical knowledge felt that the experience had been unexpectedly rewarding.

I have had to learn a lot about technology and am not that good at it but have found the livestreaming experience extremely rewarding. [...] It has enabled me to carry on with my work during my 40th anniversary year, sell a lot of merch (books, CDS, T shirts, vinyl) and promote my work - MUSICIAN

Lack of suitable venue

A barrier frequently mentioned in the comment sections of the survey was the lack of a suitable venue for livestreaming.

While many entrepreneurially-minded musicians were happy to give livestreaming a try in principle, they found their main venue option – their home – not suitable for a range of reasons. Lack of sound-proofing was a concern, regarding both potential noises from the outside affecting the performance and the sound of the performance disturbing neighbours or flat/housemates.

Lack of space posed a problem for bands and

ensembles, particularly when having to adhere to COVID-safe measures such as social distancing. Internet connections were often found to be either unreliable, especially when flat/housemates were working from home due to lockdown, or, particularly in rural areas of the country, not strong enough for livestreaming.

Musicians were also held back from livestreaming from home because of potential interruptions from children or flat/housemates and because of a dislike for sharing a private environment with viewers.

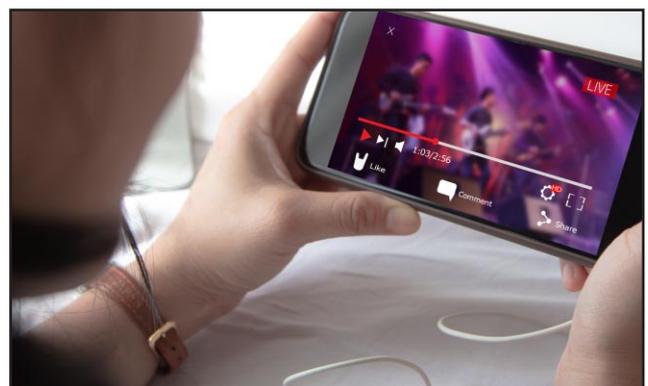
I can't guarantee there won't be drilling outside - MUSICIAN

Our children are at home and our neighbours don't want music played - MUSICIAN

A small group of musicians, particularly soloists and cohabiting duos, valued being able to perform from home and felt it offered distinct advantages, including not having to travel to rehearse or perform. The availability of familiar equipment/instruments and familiar surroundings as well as the lack of need for childcare were also cited as clear advantages.

My partner and I have done a weekly livestream from our small front room since April. The huge advantage for us has been not having to worry about childcare as the kids are safely home, tucked up in bed! - MUSICIAN

It was quite nice to be at home in your slippers, on the piano and the mic that I know. I felt in some ways more confident, cosy at home - MUSICIAN



4.1 Musicians' Experience of Livestreaming

Musicians unable to livestream from their homes had to look elsewhere for a space to livestream performances from. This was also met with difficulty, with musicians lamenting the lack of available external venues to hire.

Important features of venues suitable for livestreaming concerts, as highlighted by musicians in the survey comments, included:

- **Acoustics suitable for musical performances**
- **Relevant equipment, both audio and visual**
- **Technical support from staff trained to assist livestreams**
- **High quality internet connection**
- **Large enough to allow for social distancing when performing with band/ensemble**
- **Adherence to COVID measures (hygiene, cleaning, ventilation)**

While rehearsal studios offer several of the above features, they are not usually equipped with cameras or high quality internet access. In contrast, the livestreaming studios that do exist cater for webinars, conferences, and corporate and marketing events and typically lack the space and technical equipment required for live online musical performances.

The cost of hiring external venues was also outlined as a significant issue, leaving musicians that were unable to perform from home and unable to afford hiring a venue in a bind.

We don't have access to venues without having to pay out and we've been earning nothing for months - MUSICIAN

Lack of satisfying interaction with audience

71% of musicians firmly agreed that having little or no interaction with the audience was a barrier to livestreaming or to livestreaming more.

This topic stirred up strong emotions in many musicians, as expressed in the feedback from musicians.

Rapper Dizzy DROS echoed this, saying that, without the immediate energy from the audience, livestreamed performances would always feel like



rehearsals to him. Some musicians, however, have adapted to new ways of interacting with the audience, which will be further explored in the Emotional Engagement section.

Our children are at home and our neighbours don't want music played - MUSICIAN

I can't guarantee there won't be drilling outside - MUSICIAN

Our children are at home and our neighbours don't want music played - MUSICIAN



Kylie Minogue, pic: David Lopez-Edwards/Driift

4.2 Audiences' Experience of Livestreaming Concerts

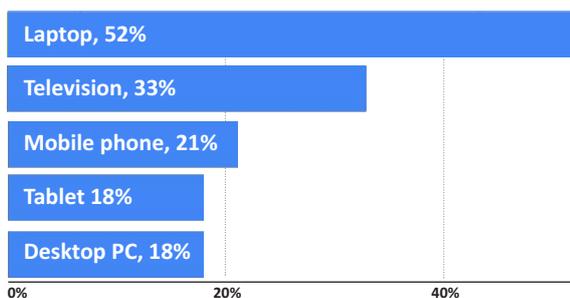
85% of attenders had experienced watching a livestream, either in pre-COVID times or since the start of the pandemic.

Attenders felt generally positive about their experience of watching livestreamed concerts, in particular when considering such aspects as the sound and visual quality, the internet connection (such as buffering issues) and how the livestreams had been set/staged.

Interestingly, attenders that had watched more concerts in physical venues prior to COVID also watched more livestreamed performances. This might suggest that attenders keen to engage with live music seek out live performances regardless of format.

Devices and technical aspects

Laptops were the most commonly used device for watching livestreams, with just over half of attenders stating that they used them. This was followed by television, mobile phone, tablet and desk computer.



• Devices used for watching livestreams.

88% of attenders watched livestreams using a Wi-Fi connection, whereas just 16% used an Ethernet connection (where the device is physically linked to the modem by a cable, making the connection faster and more reliable). 7% indicated they used mobile data (3G/4G/5G).

Comments by attenders indicated that the type of device they used influenced their viewing enjoyment and many attenders emphasised the importance they placed on livestreams being easily available on Smart TVs (television sets with integrated internet access).

[The experience] does depend to some extent on the quality of home internet and devices, which is beyond musicians' control, but with the right equipment it can be great. Being able to cast content to a Smart TV has made these much more enjoyable - ATTENDER

If artists choose a platform that is not made for streaming on a Smart-TV I usually hesitate to buy tickets - I do not own a notebook/tablet and watching the stream on the small screen of a mobile phone is just not that great in my opinion - ATTENDER

In addition to higher video and audio quality, the ability to move away from the laptop, which is usually used for work purposes, and to a TV, which is more readily associated with relaxation and leisure time, could also alleviate the 'Zoom fatigue' mentioned by some attenders.

While attenders, on the whole, tended to access livestreams on various platforms without difficulty, some of those that had encountered problems voiced strong feelings about their experience.

My most frequent irritation is that access to events has been less than clear, and for a couple of concerts where we 'arrived late', the system of processing ticket sales has meant we were unable to watch the gig - ATTENDER

The ticketing infrastructure and website access has occasionally been a real challenge. There was one concert from [a London venue] where the website through which we had to access the concert failed, which meant we missed the first 30 minutes of the concert - ATTENDER

4.2 Audiences' Experience of Livestreaming Concerts

Reality of home life

Many attenders indicated that the reality of home life was a barrier to watching livestreamed concerts.

While attending a live concert in a physical venue allows attenders time to themselves, away from home life, livestreamed concerts are typically experienced at home, putting attenders in an environment that they can't always control and where there are potential distractions.

Compared to shows in venues where I would be "out" and unavailable, family members do not consider me uninterruptable when I am watching a livestream. In some cases, this can mean I don't see a livestream at all because that time is seen as accessible for other things - ATTENDER

Making time at home that is 'special' to 'attend' gigs, when it looks like you're just looking at your device screen, [is a barrier] - ATTENDER

The need to remove myself from the rest of family life to watch a concert uninterrupted [is a barrier]. It is much easier to leave the house physically. At home you are inevitably dragged into other things - ATTENDER

Not knowing what the situation at home might be like at the time of the livestream can influence attenders' decision when to book a ticket for a performance they are interested in.

Lucy Spraggan has observed a different pattern of booking behaviour for livestreamed concerts compared to concerts in physical venues.

Generally with the live shows [in physical venues], [attenders] buy the tickets as soon as they come out. We'll sell half the venue as soon as they come out. But with livestreams, there's a trickle, trickle, trickle, then three days before, bam! That's when they're really selling - LUCY SPRAGGAN, SINGER SONGWRITER



Lack of a sense of occasion

Many attenders commented that it was difficult to create a sense of occasion around watching a livestreamed performance at home.

They felt this particularly keenly in comparison to attending a live concert in a physical venue, which often involved dressing up, planning travel, and arranging to meet with friends.

I find it much more difficult to dedicate the time to live-streamed concerts. Having to go to a physical location is an event, something that goes in the diary. In contrast, I often forget about live-streamed concerts I thought about attending - ATTENDER

Going to a gig involved a level of active planning, meaning I was significantly more likely to actually attend. Planning for attending a livestream is almost non-existent, and so they often fall out of my head - ATTENDER

It feels like it is happening in a vacuum, there is no build up to it (such as the process of getting to a venue, getting a drink, meeting your friends or chatting to other attenders, finding your seat, etc.) - ATTENDER

4.2 Audiences' Experience of Livestreaming Concerts

As attenders might forget to watch livestreams because no prior arrangements need to be made, musicians would do well in creating a 'build up' towards their livestreamed performance some time in advance of the actual event, on social media or with direct mailing.

As observed by one attender, livestreams are often announced at shorter notice compared to concerts in physical venues, making it more difficult for them to garner attention.

For ticketed livestreams, it would be advisable for musicians to integrate calendar invites on booking sites, so that attenders can put the event in their diaries at the time of booking a ticket.

Many [livestreamed performances] are not publicised far enough in advance, so I find I miss several I would have wanted to see. Live concerts are sold and promoted much earlier.

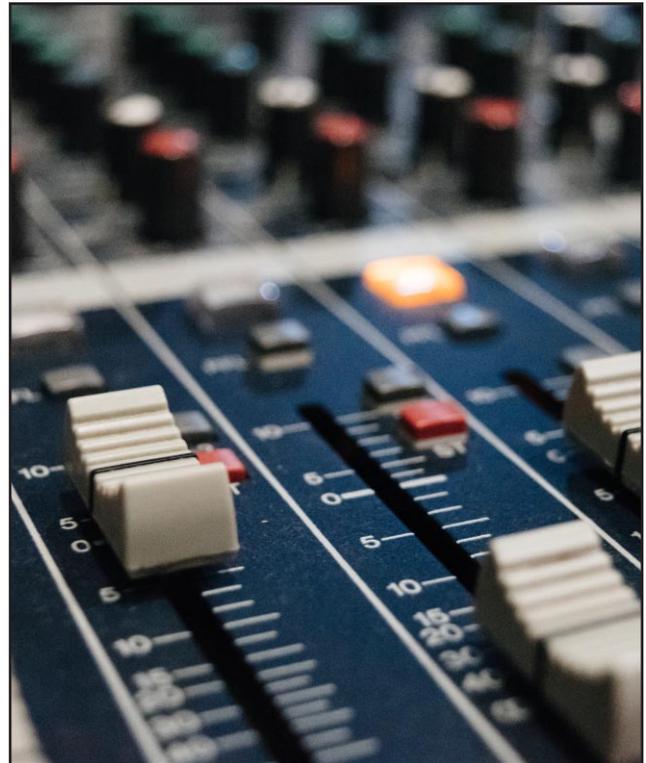
If the lead time for promotion is the same as for live events (even if the promoter chooses to offer a zero cost tier of pricing for pre-order purposes) the event will not only be seen as an genuine event, but the sense of anticipation and pre-event marketing campaign would enhance the enjoyment of more livestreams for more music fans - ATTENDER

The emotional component of watching livestreams

In times of isolation, the emotional and social components of live music events are particularly important factors for attenders and they can influence the viewing experience both positively and negatively.

Attenders that placed particular value on being in the same room as the performer and interacting with others at concerts in physical venues tended to watch fewer livestreams. Many attenders commented that watching live concerts virtually was simply a painful reminder of what they are missing.

Live streams make me too emotional to watch them, as they remind me of better times when things were normal - ATTENDER



It's too painful a reminder of what we're missing - ATTENDER

Sometimes it just makes me sad that I can't watch in person! - ATTENDER

Watching [live streamed concerts] actually makes me miss gigs more - ATTENDER

On the other hand, attenders that felt a connection to the performer during livestreams (particularly by being addressed directly) and to other viewers (through tools such as live chats) tended to watch more livestreams.

Live streamed concerts do bring a feeling of being present and participating with the artists and other concert goers. This is a real feeling of community but in a different way to being at a concert in a physical location - ATTENDER

I do like to read the comments of the other viewers or write a quick hello/good bye. As I live alone, this is a nice way to connect with other viewers, especially during lockdown, and gives a feeling of kind of being around other people - ATTENDER

4.2 Audiences' Experience of Livestreaming Concerts

Ease of availability of livestreamed performances

There were numerous comments from attenders unable to visit physical venues, even in non-pandemic times, expressing their appreciation of the availability of livestreamed concerts.

Reasons given for not being able to attend concerts in venues included living a considerable distance from the nearest city with a live music venue; not being able to afford the costs associated with concert going (travel, drinks, overnight accommodation); finding it physically difficult to get to and/or into a venue (disabled and elderly attenders); experiencing social anxiety or claustrophobia; and having commitments at home (parent with young children, single parents, etc.).

Very accessible method of watching a performance. Gave me the opportunity to watch performances that I could not have attended before COVID due to costs associated with going to a live event (e.g. travel costs, hotel cost) - ATTENDER

Living in the Midlands and having children who need to be taken to various activities (currently cancelled due to covid), livestreams give me the opportunity to 'attend' concerts I wouldn't otherwise be able to - ATTENDER

I have a disability which makes it awkward to travel long distances for special events and to stand for any length of time at events which have no seating. Celtic Connections festival streamed mainly from Glasgow is an example of being able to see events I would otherwise not be able to attend easily - ATTENDER

Nat South-Law, Grassroots Venues Manager, at Attitude is Everything, a charity aiming to improve deaf and disabled people's access to live music, emphasises that deaf and disabled live music attenders make up a large group and have considerable spending power.

Musicians would therefore do well bearing the requirements of deaf and disabled people in mind when setting up their livestreams and a guide to making online live music events accessible for all can be found on Attitude is Everything's website.



We took a snapshot of 50 venues and festivals from our charter and we found that 170,000 tickets were sold to deaf and disabled customers in one year and this equated to 8.2 million Pounds. This is from only 50 venues and festivals. [Deaf and disabled customers are] a big group of people and they bring in a lot of money - ATTITUDE IS EVERYTHING

For some attenders, the less pleasant aspects of going to a concert in physical music venues, or simply being able to watch from the comfort of their own home, made livestreamed concerts more attractive.

It was nice not to have to go out in the cold and wait for buses etc - ATTENDER

I confess I do like not having to queue for the loo or driving home after a gig - ATTENDER

Not missing the overpriced beer and dirty loos! - ATTENDER

Nice not to travel and watch in pyjamas - ATTENDER

Sometimes the thought of having to go to a gig where the main artist doesn't come on until late doesn't appeal. I would much rather be at home watching it from the comfort of my lounge with a nice glass of wine - ATTENDER

Interestingly, attenders over the age of 35 watched more livestreamed performances. A possible explanation might be that people in an older age bracket, potentially with more family and work commitments than a younger demographic, prefer occasional entertainment from the comfort of their homes.

4.2 Audiences' Experience of Livestreaming Concerts

Access to global performances usually out of reach

Attendees also expressed an appreciation for being able to watch concerts by artists from other countries, giving them access to events they would otherwise not have been able to attend.

Attendees' ability and willingness to watch concerts from around the world represent an opportunity for musicians to connect more easily with global audiences and to build up a larger fan base without touring extensively.

While the majority of musicians are likely to want to tour in post-COVID times, reduced touring activities might have an environmental benefit.

I have enjoyed being able to access streams from venues across Europe and therefore gigs I would not been able to hear - ATTENDER

I live in a country that no Western artists tour in, so it has been great to watch livestreams for the first time - ATTENDER

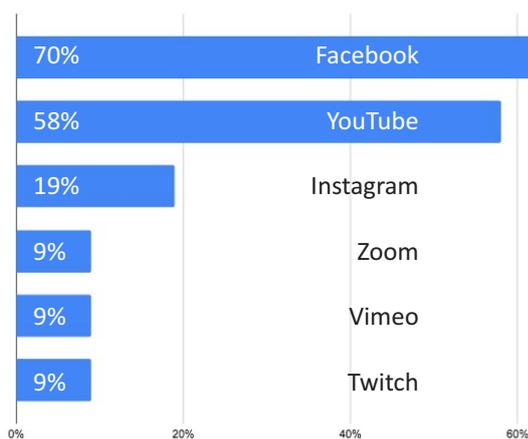
I like niche events and concerts featuring bands who never or rarely leave the States. Streaming allowed me to see Bob Weir and the Wolfe Brothers rather than just listen to concert recordings - ATTENDER

Some artists I would never have seen live pre-Covid, as they only play in the US - ATTENDER

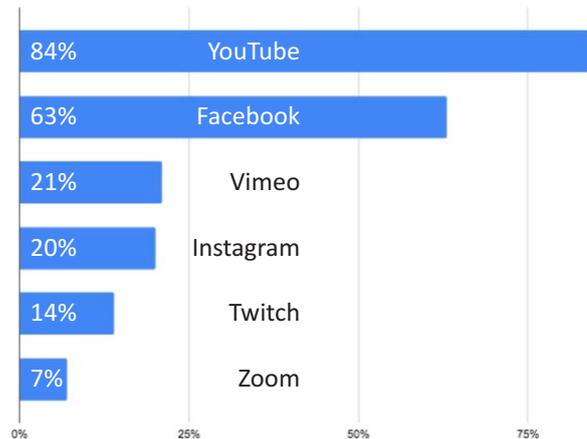


Laura Marling, pic: Joel Ryan/Drift

4.3 Platforms for Livestreaming



• Platforms most used by **musicians**



• Platforms most used by **attenders**

Just as a venue needs to be chosen for physical live performances, a digital platform needs to be chosen for virtual concerts.

Choosing the right platform is an important consideration when livestreaming, as it determines how a livestream can be monetised, licenced and promoted, and how musicians can engage with their audience during the stream.

Amongst both musicians and attenders, the six most used platforms were YouTube, Facebook, Vimeo, Instagram, Twitch, and Zoom, with YouTube and Facebook leading the field by a substantial margin.

Zoom had not been listed as a selectable option in the survey but was frequently listed in the 'others' section. It is likely that it would have ranked higher had it been listed as a selectable option.

The following description of the six most frequently used platforms aims to give musicians an overview of the platforms' features and advantages.

Facebook

The social media platform Facebook was, with 69%, the most popular choice for musicians livestreaming concerts.

Musicians that have built up a following on

Facebook have easy access to a group of people likely to be interested in their livestreamed performances. Facebook offers guidance on how to livestream from a mobile, a computer, or with livestreaming software, and there is also guidance on livestreaming from a page, a group, or an event.

A popular way of monetising livestreamed performances on Facebook is to ask for voluntary donations. Alternatively, if musicians want to sell tickets for their livestreamed performances on Facebook, they can do so through the relatively new feature Paid Online Events. There are some eligibility criteria and the page from which the event will be streamed from might have to be reviewed but it is nevertheless relatively straight forward to set up a ticketed livestream. No charge is made for hosting paid events on Facebook.

It is also possible to use external ticketing companies to sell tickets for a livestream on Facebook (privacy settings have to be changed to make viewing the event restricted), but fees and/or commission will be due for the provision of the service. A downside of livestreaming on Facebook is that attenders need to have an account to access the stream, excluding those not having or wanting to have a Facebook account.

4.3 Platforms for Livestreaming

YouTube

The video sharing company YouTube was, with 84%, by far the most used platform for watching livestreams by attenders.

It was also popular with musicians, with 63% of musicians having used the YouTube Live feature for livestreaming. Musicians with a YouTube presence prior to the pandemic were best placed to use the platform for livestreaming, as they already had a number of subscribers to their YouTube channel.

However, the platform can also easily be used by musicians that are new to it, as subscription to a channel is not needed to view a livestream on it and viewers can be attracted through promotion on other social media platforms or through mailings.

There is a restriction on YouTube livestreaming from a mobile phone, which requires 1,000 subscribers, but no restrictions are placed on livestreaming from a webcam or an encoder. General livestreaming guidance is available from YouTube's Digital Events Playbook.

While public videos on YouTube can be searched and viewed by anybody, unlisted videos are only available via a specific URL, enabling musicians to sell tickets for their livestreams. Unlike Facebook, YouTube doesn't have an inbuilt ticketing system, which means that musicians will need to use the services of an external ticketing company, such as Eventbrite, when selling tickets for livestreams on YouTube, or sell tickets via their own website through payment systems such as PayPal.

Prolific livestreamers with a substantial number of viewers can also generate income through receiving a percentage of the income YouTube makes from subscribers to YouTube Premium and from advertisement revenue (for viewers, advertisements are a disadvantage, interrupting livestreams unless a YouTube Premium subscription has been taken out).

Musicians can also benefit from viewers taking out monthly paid memberships to their channels, which gives subscribers 'perks' such as customised emojis and badges, and making merchandise available through the livestream. To monetise YouTube livestreams in these ways, musicians need to apply for and be accepted into the YouTube Partner Programme, which requires having over 1,000 subscribers.

Instagram

Instagram was used by 19% of musicians and 20% of attenders for livestreaming.

Instagram users primarily use the platform to share photos and short videos, often in the form of 'stories', but the application is also used for livestreaming performances. Donations can be requested during a livestream. However, Instagram live performances are commonly used to stay in touch with fans and for promotional purposes rather than income generation. Instagram offers useful guidance on how to set up a live broadcast on the platform.

Zoom

Zoom is a telecommunications service that enables people to see and speak to each other virtually. A basic Zoom licence is free but limits users to 40 minutes' duration and 100 participants.

Paid for licences allow much longer durations and more participants, and a Large Meetings add-on enables either up to 500 or up to 1,000 viewers to join.

This makes Zoom a suitable platform for small to mid-size livestreaming performances and it is particularly popular with folk musicians and audiences. Monetisation comes either through donations or through ticket sales, with tickets being sold in collaboration with an external ticketing company.

An advantage of Zoom is that performers can actually see the audience and, if microphone are unmuted, also hear applause after a performance. However, managing the muting and unmuting process might require the help from a moderator, as musicians would not be able to do so while performing. Guidance on audio and video set-up is available from the platform.

Vimeo

Vimeo is a video sharing platform similar to YouTube. 20% of attenders had view d that they had used the platform for livestreaming.

Vimeo gives clear and useful guidance on how to livestream from the platform but livestreaming on Vimeo requires subscription to their Premium Plan, which costs £70 a month.

Livestreams can be monetised through ticketing

4.3 Platforms for Livestreaming



(with tickets sold through external ticketing companies or via PayPal) or donations. An advantage for viewers is that Vimeo, unlike YouTube, does not show advertisements during livestreams and it also features a wider range of privacy options.

Twitch

Twitch is a video livestreaming services, which is very popular with people playing online video games. Increasing numbers of musicians from all genres have started to use Twitch for livestreaming concerts and the platform has a number of useful guidance pages and videos specifically about livestreaming music. These include an introduction to music on Twitch, guidance on how to livestream music from a mobile or computer as well as advice on hardware for livestreaming and on broadcasting software.

Because of its popularity in the gaming community, Twitch tends to have a younger demographic using the platform, which makes it a good choice for musicians wanting to access that part of the market. The platform divides live channels into various categories, including a music category with subcategories for genre, enabling viewers to discover new artists easily.

When musicians start livestreaming on Twitch, they can ask for and receive donations from attenders straight away, without Twitch taking a commission. However, in order to monetise livestreams in other ways, content creators have to become 'affiliates'. To achieve affiliate status, creators have to livestream at least twice a week for one-hour or more and need to have built up a minimum of 50 followers.

Once affiliate status has been achieved, viewers can make donations in the form of 'bits', a Twitch currency, and crucially, viewers can subscribe to the channel. Subscription involves a monthly fee of £4.99, £9.99 or £24.99, with at least 50% going to the musicians as channel owners.

The process of converting attenders into subscribers is made easier by the fact that any attender with a subscription to Amazon Prime has one free subscription to a Twitch channel. This means that attenders can subscribe to a channel at no cost to them, which is an easy way for musicians to encourage followers to subscribe.

Multichannel Livestreaming

When musicians offer free-to-access concerts (rather than ticketing them), they sometimes choose to livestream to several platforms at once, which is referred to as 'simulcasting'.

Simulcasting allows viewers to discover musicians and view livestreams on their preferred platform, broadening the livestreams' reach. There are several software packages allowing livestreamers to simulcast, with the three most popular being Restream, Switchboard, and Castr. Some services from these companies are free but for more extensive features a fee is payable.

All of these options offer chat integration, which means that the livestreamer can see live comments from all platforms in one place and interact with all viewers at the same time.

4.4 Technical Aspects of Livestreaming

A substantial number of musicians indicated that they are held back from livestreaming by a lack of technical knowledge.

Being 'tech-savvy' gives musicians a distinct advantage, while musicians without or with little technical knowledge felt left behind.

Training to learn to live stream should be free! All musicians are suffering right now and only the tech heads are able to create good quality products and services - MUSICIAN

This section outlines technical aspects of livestreaming, aiming to enable less technology-literate musicians to try out the format for the first time and to equip musicians with experience of livestreaming with knowledge about improving audio and visual quality of their streams.

Basic Set-Ups and Internet Connection Requirements

For a basic livestream, musicians can use their mobile phone or computer.

The quality of livestreams from a mobile phone can be improved relatively easily, by using a tripod and phone mount adaptor, an external microphone, a small portable light (e.g. Aperture Amaran AL-M9), and/or a wide angle lens (e.g., TECHO Universal Professional HD Camera Lens Kit). For better audio and video quality from a laptop, an all-in-one video and audio device (e.g. Zoom Q8) gives good results.

Livestreaming requires a strong and reliable internet connection, so where possible it is best to use an ethernet cable to connect the device directly to the router rather than use Wi-Fi.

The upload speed of an internet connection can be checked by visiting the service provider's website or by using the free services of companies such as Speedtest. The upload speed of an internet connection determines how much data can be sent out and therefore, if it is possible to livestream.

Upload speed is measured in by 'mbps' (megabits

per second) or 'kbps' (kilobits per second). 3mbps, for example, is therefore identical to 3,000kbps. The minimum upload speed required for livestreaming is ca. 5 mbps.

Encoding and Livestreaming Higher Quality Video and Audio

Musicians aiming to produce higher quality video and audio for their livestreams would benefit from downloading livestreaming software, which includes the ability to encode data.

Video content, and to a smaller degree audio content, consists of a large amount of data. The data needs to be compressed through an encoder, to make streaming the data faster, without losing quality. To this purpose, many musicians use Open Broadcaster Software (OBS), which is a free livestreaming software package. To run OBS, a PC needs to have an operating system of Windows 8 (or newer) and a Mac macOS 10.13 (or newer).

When using livestreaming software, it is important to have an understanding of the resolution of the video images to be sent out, measured in pixels or 'p', and the number of frames per second ('fps'). These elements, as well as the audio, require a certain 'bitrate', which is the amount of information that can be sent out per second.

An advantage of using software such as OBS is that users can select specific bitrate settings, allowing them to choose the audio and visual quality they want their livestreams to have. Once the upload speed of an internet connection has been established, it is advisable to choose a bitrate of between 50% and 75% of the available speed to allow for fluctuation.

Different platforms require different bitrates for livestreaming. To produce high quality videos in high definition, Facebook Live recommends a resolution of 1080p and 60fps, which requires 6mbps. Allowing for fluctuation, musicians would therefore need access to an upload speed of 9 or 10 mbps. On YouTube Live, for a resolution of 1080p and 60fps, a bitrate range of 4.5-9 mbps is recommended, which would require ca. 7-16

4.4 Technical Aspects of Livestreaming

mbps. However, a setting of 9 mbps would in all likelihood be sufficient.

It is always advisable to run a private test stream and to adjust the parameters according to problems that might occur. OBS allows users to monitor how well their connection is maintaining the specified stream settings.

If the livestream is dropping frames (resulting in lower quality), then it is worth reducing the resolution (720p is still high definition), reducing the bitrate, or reducing the frames per second from 60 to 30. If upload speeds are low or fluctuate significantly it might be necessary to upgrade the service package with the internet service provider.

Audio Quality and Processing

For a basic, good quality sound, musicians could purchase a handheld audio recorder (e.g. Zoom H2n), which can be directly plugged into a computer via a USB port.

For higher audio quality, a microphone suited to the specific instrument(s) is recommended. For many ensembles and bands, two well-placed overhead microphones would capture a very good sound. To feed the audio signal from microphones into a computer an 'audio interface' is required. A popular and relatively inexpensive option is the Focusrite Scarlett 2i2.

To mix the audio, a 'digital audio workstation' (DAW) is a good solution. One option is Reaper, which is available through a relatively inexpensive discounted licence and through a commercial licence. Within Reaper, a 'limiter' (e.g. the Voxengo's 'Elephant' plugin) can be used, to adjust dynamics, so that the volume of a mix won't exceed a certain level, mitigating against peaking. Limiting should be used on the overall mix rather than on individual instruments or vocals.

Compression can be used to reduce the dynamic range of the instruments or vocals. It decreases the

loudest parts, while raising the volume of the quietest. Compression balances the volume, whereas limiting stops it from peaking. As limiting and compression reduce the dynamic range, they should be used with care. Equalisation (EQ) – adjusting the balance of the frequencies (bass, treble, etc.) – and reverb – simulating the reverberation naturally present in physical spaces – further enhances audio quality.

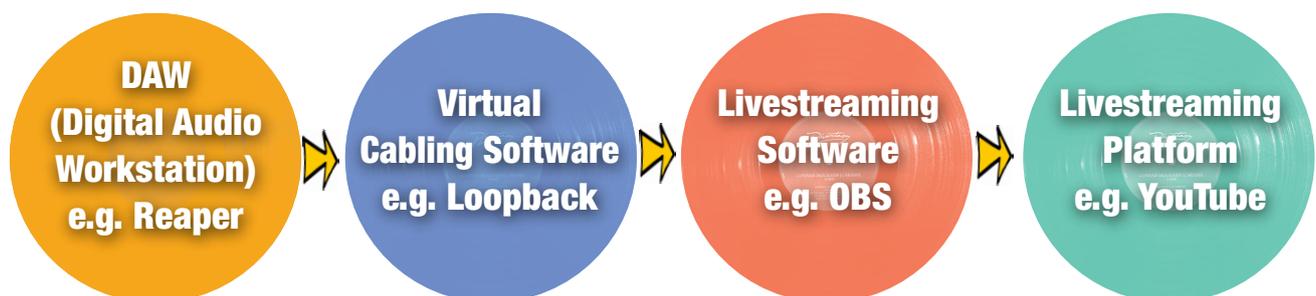
An alternative to using a DAW is to mix the audio on an external mixing console, which is fed into the audio interface. An advantage to this approach is that it will put less strain on the computer's central processing unit (CPU). Some interfaces also have standalone mixers (e.g. the RME UFX)

Transferring Audio to Livestreaming Software

Once the audio is mixed on the DAW, it needs to be sent to OBS or an alternative. There are several virtual cabling software packages available for this purpose. For Macs, Loopback has the advantage of being very straightforward to use. Blackhole (for Macs) and VB-Audio VoiceMeeter (for PCs) are free alternatives.

The DAW can be added to virtual cabling software and is then treated as a 'virtual device'. The virtual device can then be taken as audio input by livestreaming software such as OBS. In OBS the 'Create Source' option needs to be selected, to create a new 'audio input capture'. The 'virtual device' is then selected in 'Device.'

A free solution that works well on Windows, and when using Reaper as a DAW, is to install both ReaRoute (selecting 'optional functionality') and the ASIO plugin for OBS-Studio. In Reaper, on the master output, a hardware output to ReaRoute needs to be created, using channels 1 & 2. In OBS, 'Create Source' needs to be selected, which will then create a new ASIO input capture. In 'Device', 'ReaRoute' is selected and then OBS outputs 1 and 2 assigned to ReaRoute inputs 1 and 2. In the advanced audio settings, only track 1 needs to be selected.



4.4 Technical Aspects of Livestreaming

Video Quality and Processing

To produce a high-quality image the use of at least one DSLR (digital single-lens reflex), or alternatively mirrorless, camera is recommended.

A wide choice of cameras suitable for livestreaming is available, at varying price levels, but three aspects are important to bear in mind when choosing one. Firstly, the camera should not have an automatic shut-off after 30 minutes, as most livestreams will be longer than that.

Secondly, it is essential to select a camera that sends out 'clean HDMI'. This means that the camera only sends out the video feed, not the information that is displayed to camera user, such as information about exposure or battery life. Lastly, as internal batteries might not last for long, it would be useful to have a camera that can be connected to the mains power via an adaptor.

A lower quality option is to use an iPhone as a camera, feeding the image from the phone to OBS using the 'Camera for OBS Studio' application, which requires the iOS Camera plugin for OBS to be installed on the computer. Further alternatives are external webcams (small cameras designed for streaming a feed directly to a computer) and camcorders (portable video and audio recorders).

Webcams and camcorders usually have a USB output, so they can be plugged directly into a computer. However, DSLRs and mirrorless cameras have HDMI output, which computers cannot accept as input. To solve this, either a USB capture card (e.g. Elgato Cam Link) can be used or a video switcher (e.g. Blackmagic ATEM Mini).

The latter is more versatile, as it allows for switching between multiple cameras live and choosing from a range of effects transitions (e.g. dissolve, dip to colour). Many video switchers can be used to switch cameras automatically, and at randomised intervals, which is a useful feature, particularly when nobody is available during the livestream to switch them manually. When using the Blackmagic ATEM Mini, randomised automatic camera switches can be achieved by using 'macros'.

Combining Audio and Video

When using a DSLR, or mirrorless camera, the video will usually be out of sync with the audio when

it reaches the livestreaming software. This can be counteracted by delaying the audio in the DAW, which is achievable with free plugins such as Voxengo Sound Delay. Streaming platforms will provide users with a 'stream key.' In the 'stream' section of the OBS settings, the stream key needs to be pasted into the 'stream key' box. In the audio mixer, any audio sources that are not intended to be streamed must be muted. The last step within OBS is to select 'start streaming,' and for some platforms the stream will also need to be started at the platform end. A few practice streams, for example to an unlisted YouTube link, are recommended before streaming to a live audience.

Lighting of Livestreamed Performances

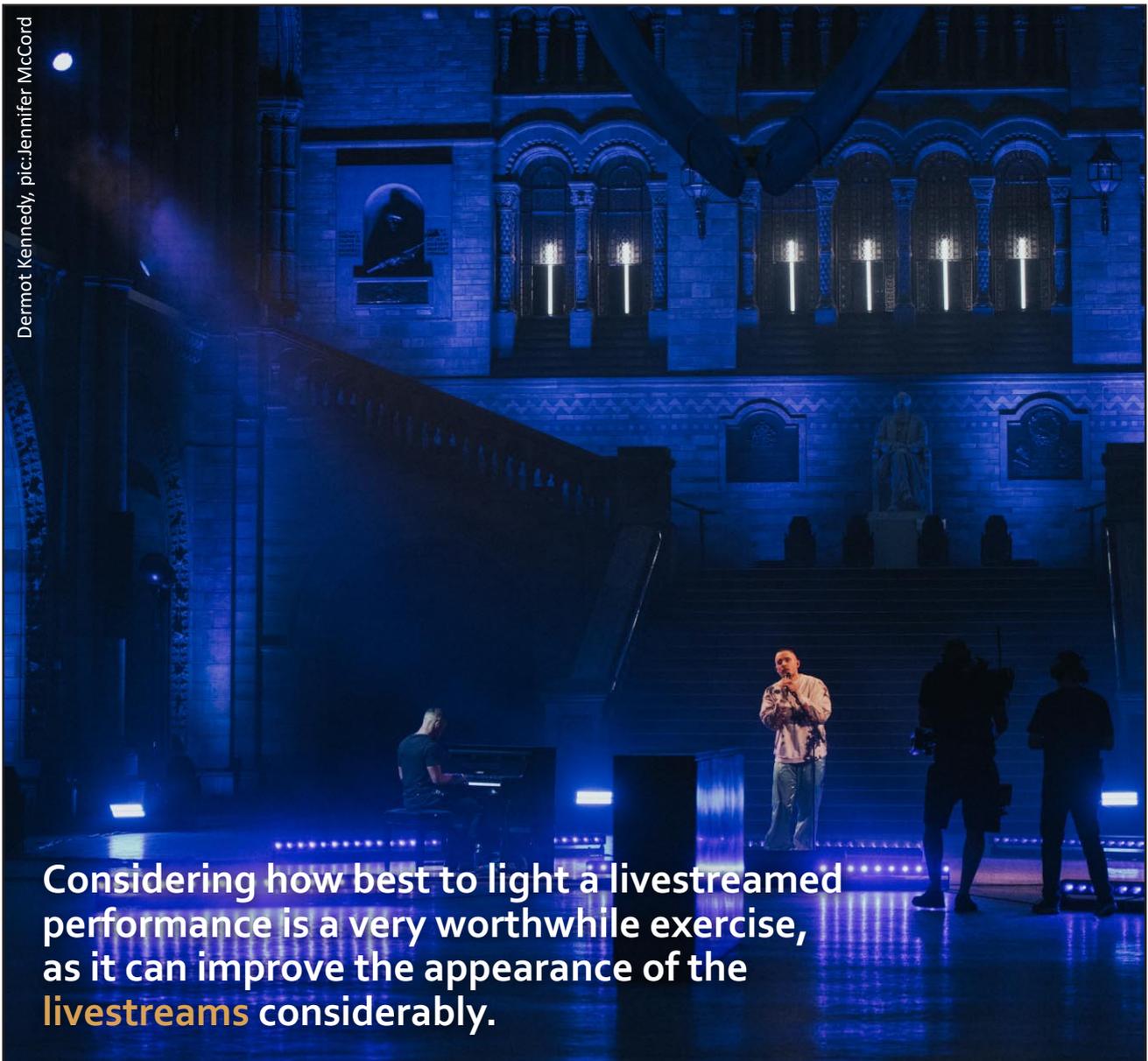
Considering how best to light a livestreamed performance is a very worthwhile exercise, as it can improve the appearance of the livestreams considerably.

When lighting a scene, there is usually a 'key light' and a 'hair light'. One option for an affordable light is the Falcon Eyes RX-8T. The key light is the main source of light for the scene. It is usually positioned in front of the subject (i.e. the musician) at an angle, lighting up one section of them. Shadows on the subject can be softened through various means. If using a light stand with an umbrella bracket a lighting umbrella can be used. Cheaper options for softening shadows include using a frosted shower curtain, a bedsheet, a pillowcase, or parchment paper.

A hair light is usually positioned behind and to the side of the subject, around three feet above their head, angled down and slightly forward so that it lights the top of their head and their shoulders. Where possible subjects should wear clothes that separate them from the background.

To add some colour to the background of the scene, colour gels or colour filters can be used. They are pieces of coloured transparent material that are placed over a source of light in order to colour it. Coloured, transparent, plastic binder dividers can be used as an inexpensive option. RGB (red, green, blue) lights are a more expensive alternative but give the user more choice and control.

4.4 Technical Aspects of Livestreaming



In terms of camera settings, it is useful to have an understanding of key terms, including 'aperture', 'ISO', 'shutter speed' and 'white balance'. Aperture controls brightness and determines how much of the scene in front and behind of the subject is sharp (known as the 'depth of field').

With a wide aperture, the depth of field is narrower, meaning that less of the scene is in focus. This is useful for isolating the subject and is measured in 'f-stops.' It will be manually adjustable on the camera.

ISO is a setting that brightens or darkens the image. Higher ISO values brighten the image and can be useful in darker environments. However, the higher the ISO value the more grainy the images will

be, so lower ISO values are generally advisable for reasonably lit scenes.

The shutter speed determines the exposure – the higher the speed, the briefer the exposure, and therefore the darker, but less motion blurry, the image is. White balance balances the colour temperature, so that objects that appear white in person are also white in the image. The simplest way to do this is using the pre-set setting, while holding up a 'white balance card' (a white piece of paper will work) to the camera.

** With particular thanks to Dan Tepfer for his guidance on livestreaming technology*

4.5 Copyright, Licensing and Livestreaming

Opinions amongst musicians were divided on whether a lack of relevant legal knowledge was a barrier to livestreaming. However, musicians that had not livestreamed broadly agreed that a lack of legal knowledge held them back from streaming. Almost all musicians that commented on their lack of legal knowledge identified copyright as a specific concern.

I play few covers on streams because I don't know how livestreams are licensed - MUSICIAN

There is total confusion about copyright for streaming - MUSICIAN

I don't know if I can play background music of another artist on Facebook prior to my livestream! - MUSICIAN

Licensing for livestreamed concerts is a highly complex issue, which continues to evolve rapidly and this report can only partially reflect the current situation. The report cannot and does not give legal advice. This section aims to highlight current problem areas relating to the licensing of livestreams, as raised by musicians in the survey.

Licensing Livestreamed Performances

Musicians often perform music that they didn't write themselves, which is commonly referred to as using 'third party content'.

This could be a pop musician playing cover songs or a classical musician performing contemporary compositions. Songwriters or composers usually own the rights to the music they have written, although publishing companies have often been granted a share of the performing rights. When musicians use third party content, it is important to gain the permission to do so from the respective songwriters and composers.

To this purpose, musicians can either come to an arrangement with the rights holder directly, or, if the

work is registered with a copyright payment collection society (which is commonly the case), they must buy a licence, which allows them to use the work. In the UK, the collection society is PRS for Music.

There are two factors that determine which licence is required – the way the livestream is monetised, and the platform used for the livestream. The six platforms most used for livestreaming concerts in the UK, as identified by musicians and attenders in the survey, are Facebook, YouTube, Instagram, Vimeo, Twitch, and Zoom. Some of these platforms have licensing agreements in place with rights holders like PRS for Music to use third party content, while others don't.

Licences for Livestreaming on Facebook, Instagram and YouTube

There are licensing agreements in place for Facebook/Instagram (owned by the same company) and for YouTube, which allow livestreaming of third party content to most countries around the world.

This means that for livestreams that are free to access or that are monetised through voluntary donations, musicians do not need to obtain any licence, as all relevant rights have been pre-cleared in the platform's licence.

For livestreams that are monetised through ticketing, mandatory donations or sponsorship, performers are required to obtain a licence, to give them permission to use specific third party content. To this purpose, performers livestreaming from the UK can purchase an Online Live Concert (OLC) licence from PRS for Music. This licence is event specific, which means it needs to be purchased and a set list must be submitted for each individual livestreamed performance. This can be done via an online portal or by contacting PRS for Music directly.

The licence covers livestreamed performances, originating in the UK, of works controlled by PRS, including those the society represents from a wide

4.5 Copyright, Licensing and Livestreaming

range of other countries. An OLC licence allows musicians to livestream to audiences in multiple territories, including the whole of the European Economic Area. However, in some countries national rules apply, limiting who can license, which means that some countries, such as the US and Canada, may not be covered.

The OLC licence costs £25 for livestreams generating income of £500 or less; £75 for livestreams generating between £501 and £1,000; and £125 for livestreams generating between £1,001 and £1,500. Licensing fees are fixed regardless of how much income is generated within a bracket, which means the less income is generated the higher the percentage of money that needs to be paid towards performance rights. It is also possible to apply for a bespoke OLC licence for an event generating less than £1,500. For livestreams generating over £1,500 in income, PRS for Music offers an OLC licence at a temporary discounted rate. The cost of the licence is 10% of the event's revenue plus VAT. Licences can be purchased after the event, once it is clear how much income has been generated.

The OLC licence is event specific and a longer term licence is currently not available. The cost and administrative effort involved in purchasing multiple OLC licences can deter musicians from monetising their Facebook/Instagram and YouTube livestreams through ticketing, particularly as musicians that are new to livestreaming may want to livestream regularly, to build up their online presence.

If a musician wants to perform works that they have written themselves and that they solely hold the rights for (i.e. not share the rights with a publishing company), and they are a PRS for Music member, then they can obtain an discretionary licence from PRS for Music.

If a musician wants to perform works that they have written themselves and that they solely hold the rights for (i.e. not share the rights with a publishing company), and the works are not registered with PRS for Music or a collection society in another country, then they don't need an OLC licence. A guide to which type of OLC licence musicians require can be found on PRS for Music's website.

Licences for Livestreaming on Twitch, Zoom, Vimeo, and Musicians' Own Websites

There are currently no licensing agreements in place for Twitch, however, negotiations are taking place, so this might change.

There are currently also no licensing agreements for Zoom and Vimeo.

The type of licence required for livestreaming on these platforms is determined by the way the streams are monetised. For livestreams that are monetised through ticketing, mandatory donations or sponsorship, musicians need to purchase an Online Live Concert (OLC) licence from PRS for Music, just as they would for ticketed performances on Facebook/Instagram and YouTube.

Musicians wanting to livestream performances (originating in the UK) of third party content controlled by PRS for Music on these platforms, and whose livestreams are free to access or monetised through voluntary donations, are required to apply for a Limited Online Music Licence (LOML). This licence is designed for small 'digital services' in the

Digital Platforms	Free Livestreams	Ticketed Livestreams
Facebook	No licence required, as licensing agreement is in place	OLC licence required
YouTube	No licence required, as licensing agreement is in place	OLC licence required
Instagram	No licence required, as licensing agreement is in place	n/a as livestreams on Instagram are not usually ticketed
Twitch	LOML required	n/a as livestreams on Twitch are not ticketed
Zoom	LOML required	OLC licence required
Vimeo	LOML required	OLC licence required

• Licences required by digital platforms

4.5 Copyright, Licensing and Livestreaming

UK, with an annual income from those services of less than £12,500 a year.

It can be purchased for either 6 or 12 months, with the price dependent on how much music is used. Prices start at £87.60 incl. VAT for 6 months and £175.20 incl. VAT for 12 months. The licence covers livestreams to the UK public only. Performing works by non-PRS members on free-to-access livestreams on Twitch, Zoom, or Vimeo currently falls outside of PRS for Music's remit and no licence is available.

Musicians wanting to host livestreamed performances (originating in the UK) of third party content controlled by PRS for music on their own websites are also required to purchase an LOML. However, if the performance is free to access or monetised through voluntary donations online an alternative option is to embed a YouTube video into the website, thereby drawing on the licensing agreement that is in place between YouTube and the PRS.

Playing Recorded Music on Livestreams

Many musicians are keen to use recorded music on their livestreams. Some would like to play recordings to create a pleasant atmosphere while viewers are waiting for the actual live performance to begin.

I don't know if I can play background music of another artist on Facebook prior to my livestream! - MUSICIAN

The lack of clarity regarding backing tracks permissions when used on live streams is a barrier. All [backing tracks] are legally available for live performances when buying the track and none without extra fees for legal use on livestreams - MUSICIAN

Others, particularly soloists, would like to use backing tracks to perform to. There is some confusion amongst musicians as to what is permitted.

The issue is that recordings involve a different set of rights and right holders compared to live performances. Live performances involve performing rights, so the rights of the owner of the musical work itself (usually the songwriter/composer and often publishing companies) to receive royalties for the use of their work.

Recordings involve sound recording rights, so the rights of the owner of the recording of the work (usually the record companies) to receive royalties for the use of the recording.

This is an important differentiation because it involves different types of licensing and it would therefore be easier for musicians to avoid using recorded music on their livestreams. Alternatively, musicians can use libraries of copyright-free tracks, such as Facebook's Sound Collection and YouTube's Audio Library.

Lastly, it is important to note that a livestream becomes and is treated as a recording if musicians make it available after it has been broadcast live. The OLC licence permits a livestream to be available for 72 hours, to enable musicians to reach international viewers across time zones, but after the '72-hour re-webcast window' the licence expires and the livestream is treated as a recording.

Enforcing Copyright on Livestreaming Platforms

Both the Online Live Concert (OLC) licence and the Limited Online Music Licence (LOML) are limited licences in terms of the countries they cover, and there is currently no licence that allows musicians to livestream any third party content to any country in the world.

This can put musicians, who have purchased a licence for an event originating in the UK, in the position of inadvertently breaching copyright in another country, resulting in their stream being temporarily banned from a platform. For example, if a UK musician, who has an OLC licence for their online event, livestreams a performance to ticket buyers from the US, their UK licence might not cover them and their livestream could be stopped mid-stream by the platform they are streaming from.

Cover song performance on Facebook has been a big problem and a great cause for worry throughout our trying to adapt to the current climate - MUSICIAN

This can occur when platforms scan videos for third party content and find a match to a work which the rights holder has asked the platform to block

4.5 Copyright, Licensing and Livestreaming

usage of, or when right holders make a claim against a video stream. However, platforms don't always get it right and 'false positives' occur so that content is blocked despite a valid licence for the right territory being in place, or despite a licence not being required. When this happens, musicians can 'appeal', providing a copy of their licence, but that option does not rectify the situation when a livestream is stopped mid-stream.

The hardest thing I have found is triggering false positives on copyright systems – e.g. when using royalty-free samples or loops. The stream just stops, and you don't really have a way of sorting it out until after the event - MUSICIAN

I got a Facebook stream flagged even though I was performing my own material - MUSICIAN

Lastly, use of recorded music as part of a livestream is another reason why livestreams can get blocked by platforms. This is when backing tracks or other 'background' music in recorded form, which is not covered by the OLC licence, are featured on the livestream, or when musicians make a recording of their livestream available for on demand viewing.

I am a saxophonist so I was playing over backing tracks and DJs tracks because I don't have my own music and it represents what I do normally (play with DJs), as a result I got copyright issues and had to take my livestream down as soon as I had done it! - MUSICIAN

However, a substantial amount of material, which does not have the correct rights clearances, is still livestreamed without being blocked by platforms. With thousands of livestreams broadcast every day, platforms are simply unable to enforce copyright for every single stream and for every single country.

Until international agreements are in place that can be and are enforced sensibly, the situation regarding copyright and livestreaming will remain fraught, both for songwriters and for performers.

I would love for there to be a [...] licence for musicians to play cover songs online, just the same way we can do it in venues that have a PRS licence. If I could buy an annual online PRS licence for online gigs, that would serve the industry well.

Instead of Facebook kicking you off and blocking your online events to certain countries around the world, if not all. [It] would save a big headache and I could reach a larger audience and not have Facebook blocking my videos - MUSICIAN



4.6 Emotional Engagement during Livestreaming

Having limited interaction with the audience is seen by many musicians as a substantial downside to livestreaming, particularly when compared to the immediate emotional response received in physical venues, in the form of applause or cheering.

I derive pleasure from the human interaction of a performance. Live-streaming is a bit like singing to your hairbrush in the mirror - MUSICIAN

It's very sad as a musician not being able to feel the audience directly. In the end you lose the real connection and it does affect your performance and state of mind - MUSICIAN

Some musicians commented specifically on the physical experience of being in a live music venue.

I can't get away from the fact that rock and metal belong in sweaty clubs and venues and anything else doesn't have the energy and vibe - MUSICIAN

I don't see livestreaming as any substitute for the whole body experience of going to see a real packed out noisy gig - MUSICIAN

Almost all attenders (96%) in the group of those that had never watched a livestream broadly agreed that not being in the same physical room as the performer was a barrier to watching livestreams. However, the picture was more mixed for attenders that had experience of watching a livestream and there were many positive comments about engaging with musicians virtually.

95% of all attenders firmly agreed that a sense of connection with the performer during livestreaming was important to them. Crucially, attenders that felt connected because of the performer's communication with the audience and because of the audience's live

response during streaming watched more livestreams. Performers talking directly to livestream viewers made attenders feel particularly connected with the performer as did performers acknowledging attenders personally, for example by mentioning them by name or answering a question from them.

Having your name mentioned by the artist, maybe as a result of comment in the chat, is wonderful - ATTENDER

[It makes me feel connected] when artists have given personal shout-outs to people in chat & answered questions/played requests - ATTENDER

The exchanges on live chats are also valued by musicians.

What's really blown me away is that in livestreaming, with this approach of interacting with the comments, you really – both for the audience and for the performers – end up getting a lot of that experience of live performance. It does get close to the experience of being in the same physical space together - DAN TEPFER, JAZZ PIANIST

I was surprised by the level of connection I felt with the audience, just through watching comments come in - MUSICIAN

The really good thing about Twitch, which, in some sense, is better than live gigs [in physical venues], is that, while we are playing, we can read comments live, and nine times out of ten you're just getting very positive and really nice comments - LIVI IN THE MIDDLE, OVER BAND

Many attenders and also some musicians valued the chance to interact in a more nuanced way online. When musicians play in a physical venue, they

4.6 Emotional Engagement during Livestreaming



perform to a block of people, who respond collectively as a group, through applause or cheering, leaving little space for individual reaction. Online responses, however, often in written form in live chat, give individuals a voice.

The livestream offers a chance to have insight into others' feelings about the gig that potentially even live gigs don't offer, through comments and emojis ATTENDER

It's easier for people to express themselves with clarity in comments than it is with applause - DAN TEPFER, JAZZ PIANIST

Watching people in chat connect with each other in ways that would be nearly impossible at an in person gig has been an education and shows some of the possibilities of this new medium - MUSICIAN

However, live chat also presents some challenges. Very busy live chats, with hundreds of people posting comments at the same time, make it difficult for attenders to get to know each other and for musicians to pick out individual comments. Internet 'trolls', intent on upset and conflict, can also spoil the experience.

Moderators are therefore required to select comments for musicians to respond to and to ensure that no comments are disruptive or offensive. Promoters such as Live to the Living Room and

Wigmore Hall recruit paid moderators (with Wigmore Hall even ensuring moderators are multilingual to look through foreign language comments), while musicians, such as Livi In Middle, draw on a team of volunteers from their fan community. Artists themselves and their supporters can, of course, also deal with problems directly when they arise.

On a Frank Turner live stream there were some interlopers causing trouble and Frank Turner and the watching fans all made them know that they weren't wanted by drowning them out with heart emojis in the comments. A lovely display of unity and community - ATTENDER

Whether communicating in writing or spoken form, moderators can also play an important role in keeping the audience informed and engaged between pieces, creating a link between attenders and musicians.

Direct communication between musicians and attenders is, however, easier for some genres than for others. Performer/audience communication is not commonplace in classical music performances in physical venues, which means that it might also not occur naturally online.

I think it really helps when performers introduce the works they perform beforehand. Bowing to the audience at the end or just saying goodbye may be a better way of ending the concert than looking around awkwardly while waiting for the livestream to end (something which I have seen musicians do numerous times)- ATTENDER

[Text quote, attender] Mostly I have attended small livestreams, but I did attend one [from a larger promoter]. The former had a great sense of connection to the performer and the audience, but the latter had little (although I did look at comments on Twitter after the performance, which was fun) - ATTENDER

4.6 Emotional Engagement during Livestreaming

Livestreaming could be seen as an opportunity to establish new practices of direct performer/audience communication in classical music. As an alternative to classical musicians talking to attendees before the performance or in between pieces of music, which might break concentration, some livestreams offer a talk with the musicians after they have performed.

An example is Opera Live at Home, which makes a short Q&A session with the performers an integral part of the ticketed livestream performance. This allows audiences to engage with artists in person and hear them talk in a virtual but comparatively intimate setting.



Pic: Opera Live at Home

Communities

A substantial benefit of regular livestreaming is that it enables frequent social interactions, allowing attendees to get to know and support each other.

I love being in a livestream with other fellow supporters. It's like being in a club! - ATTENDER

Frank Turner did a full band livestream on my birthday and while Frank himself could not give me a shout-out the whole chat did! It was lovely - ATTENDER

[It makes me feel connected] when individuals in chat have bonded over either the music or personal circumstances - ATTENDER

I do like to read the comments of the other viewers or write a quick hello/good bye. As I live alone, this is a nice way to connect with other viewers, especially during lockdown, and gives a feeling of kind of being around other people - ATTENDER

Snake Davis (jazz/ soul sax player) has streamed regularly twice a week throughout the lockdown and a virtual audience has developed who support each other (though we have never met). It has been an extremely valuable experience - ATTENDER

The regular communication with other attendees often leads to the formation of communities, which are appreciated not just by attendees but also by musicians.

It's been an amazing tool for connection with my audience. I have had much positive feedback from listeners, too, who say they have benefitted from feeling part of our community, linked by music - MUSICIAN

One of the things that I'm really grateful for in my livestreaming – especially in the ones that I've been giving every Monday since the beginning of the pandemic – is there are people who come back every single Monday and they've started to get to know each other. They've really started to become a community and are talking outside of the livestreams. It's really surprising, I could not have anticipated any of this a year ago - DAN TEPFER, JAZZ PIANIST

The Creation Lounge, that's the community that's evolved around my weekly streams. There's now this daily support network that's growing all the time. I wake up in the morning and they've all been looking after each other in the night and throughout the day, there's just so much compassion in there.

You're creating a virtual version of the circle of friends you might go to a concert with or share whatever music in real life but they're around the world, and they're from different demographics, different backgrounds and for me, that's why I do it, that's why I do the streams. So that I feel like I'm in the community, I'm not isolated and stuck here - SK SHLOMO, BEATBOXER

4.6 Emotional Engagement during Livestreaming

Communities might, in fact, form more easily online than in physical surroundings, as participation is not limited by location and, for many, non-visual communication in chats is less daunting to join.

It's great to see communities forming in the comments of the streams. The same people chatting each week about the stream and getting to know one another means, even if you aren't commenting yourself, you feel part of a group doing something fun together, which is particularly important when people have limited social interaction - ATTENDER

The communities formed through livestreamed concerts sometimes expand onto different platforms. For example, SK Shlomo's Creation Lounge community meets on the messaging platform WhatsApp, while Livi in the Middle's Twitch subscribers have access to a group on Discord, a platform that allows members to exchange written messages and verbal chat in real time.

It is also noteworthy that communities are forming around livestreamed concerts from all genres including classical music.

I noticed that people seem to know each other and greet each other, on YouTube on the live chat, also on Twitter and Facebook, regulars, talking to each other. As the pandemic went on, we noticed that the people, who used to hang out together in the hall, were forming their own little niches and talking in little groups online and that's nice - JOHN GILHOOLY, WIGMORE HALL

Engagement on Zoom

For musicians that are intent on seeing and hearing attenders during a livestreamed performance, Zoom is a good option.

The video communications platform, more commonly used for meetings and conferences, allows attenders to make themselves seen and heard. In February 2021, a Live to Your Living Room concert featuring Scottish folk artist Karine Polwart sold out, resulting in just under 1,000 attenders, the

platform's maximum capacity.

While attenders have the choice to switch their cameras off, many choose to leave them on, allowing the musician and other attenders to see into their living spaces. Equally, viewers can choose to unmute themselves after the performance of each piece of music, to respond by applauding or cheering. This way of engaging seems highly appreciated by musicians and attenders alike.

Post-gig Zoom chats with bands and other audience members are really lovely, and offer the experience of the post-gig 'hang', and the buzz that you feel from having a shared experience watching a gig and chatting with people as you leave the room - ATTENDER

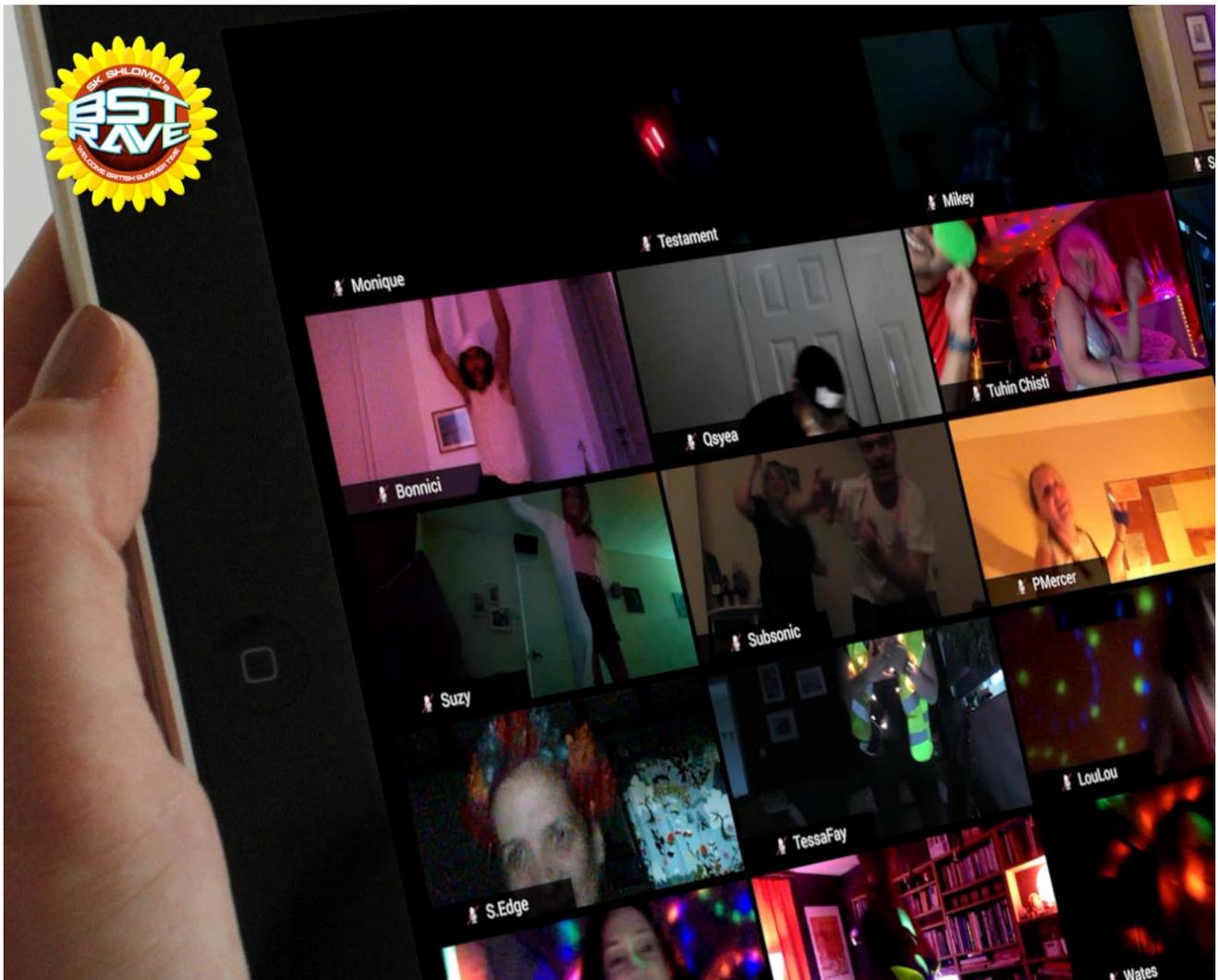
We've had artists getting really emotional during the gigs, saying 'Oh, my God, I haven't had any applause for a year and I can hear applause, and I can see all these people, it's amazing!'. It's made for a really special, intimate kind of atmosphere. Even with a thousand people in the room, it still feels quite intimate and close because you're seeing everybody in their homes - CAT MCGILL

The first gig I did with a Zoom audience was in March or April and I thought 'Oh, my gosh, they're moving, they're dancing! I'm influencing them and I can see that coming back to me, the feedback loop has now been completed, even if it feels weird and dodgy and alien, it is there!' - SK SHLOMO, BEATBOXER

In Zoom, seeing other audience members and hearing their applause [makes me feel connected]. And being able to Unmute to say hello/goodbye to specific friends - ATTENDER

Musicians performing on Zoom would benefit from the help of a moderator, as attenders occasionally forget to switch their microphones back off after applauding, thereby causing a potential disruption to the performance.

4.6 Emotional Engagement during Livestreaming



Adapting to Communicating on Livestreams

Emotional engagement between musicians and attenders, and between fellow attenders is possible on livestreamed performances but it is a different kind of engagement compared to experiencing a concert in a physical venue.

Lucy Spraggan likens the response from online audiences to hearing fans applaud with gloves on – the response is there but it is less intense. These new ways of interacting might take some getting used to, particularly for musicians. However, many musicians have managed to adapt, as described by beatboxer and live-looper SK Shlomo.

In the first few months I found it really hard. There was a massive vacuum when performing online.

I'm so used to leaving a space for a laugh or a cheer and that felt really, not just awkward, not just uncomfortable, worse than that, painful. It was horrible that gap, that vacuum that felt like you're performing in space and there's just no-one there.

But then gradually my brain's adapted. I think my brain has learnt that the feedback comes from little stars coming up the side of the screen, or from likes, or comments, so from much smaller micro interactions and I'm kind of okay with it.

When I get back out on stage, it's gonna be a real culture shock for my brain and my limbic system but, for now, I've adapted -
SK SHLOMO, BEATBOXER

4.7 Value in Livestreamed Concerts

Livestreaming concerts, as a new format, is still establishing itself and it will take some time before its positive and negative implications have fully crystallised.

Many attenders made direct comparisons between livestreaming and traditional formats, with livestreaming often seen as an inferior option.

For livestreaming to become a widely used and accepted format, its values to attenders have to be examined and highlighted. Musicians wanting to monetise their livestreamed performances would do well to develop an awareness for what these values are and why they matter to their audience.

Value 1 – Easier Access

Attending livestreamed concerts, compared to concerts in a physical venues, was seen by many at

tenders as a less rewarding experience. While musicians broadly agreed that tickets for livestreams should cost less than tickets for performances in physical venues, attenders felt more strongly about this, which was made clear in the comments.

I do think that ticket prices should be a lot lower than the in-venue gigs because it's not the same as actually being there - ATTENDER

I am about to 'attend' my first livestream. Even with the best online experience it will inevitably fall short of the experience of being in the concert hall - and the price has to reflect that - ATTENDER

However, concerts in physical venues require physical presence, which is not always possible or convenient. This aspect is beginning to be recognised as an importance advantage of livestreamed concerts.

An implication is that some attenders are beginning to see livestreamed concerts as an occasional alternative to concerts in physical venues, allowing them to access and enjoy more events than

It's not the same as live, but it's super convenient (I don't have to drive anywhere or take the train, so it's cheaper and takes less time), so there are times where I might not bother going in person, but I might still go (and pay to go) to a livestream instead - ATTENDER

For a livestream of a gig, which is geographically remote and which I cannot travel to because of work commitments or cost, I might pay a reduced sum to livestream - ATTENDER

One [livestreamed] concert I watched took place at a venue on the other side of the country, in the middle of a week day. There was no way I would have taken time off and paid a lot on travel to go that concert, but I was able to attend it. It made me think about access to other festivals and events I would never normally be able to get to - ATTENDER

Livestream for a fee is fine by me, if it means I see and experience more music, without the hassle of travel so be it - ATTENDER

they could do otherwise, and, importantly, as an alternative that they are willing to pay for.

Value 2 – Feeling Connected through 'Live'

A vast range of video recordings of concerts of all genres is available on the internet and, on the whole, those recordings are available to viewers for free.

This leads to the question of what motivates viewers to pay for livestreamed concerts. 56% of attenders agreed, to varying degrees, that during the pandemic they primarily made financial contributions towards livestreamed performances out of a sense of charity, simply because they

4.7 Value in Livestreamed Concerts

wanted to support the artist (or an associated charity) in difficult times. While the pandemic is likely to have a negative impact on artists' livelihoods for some time to come, financial contributions made out of charity cannot be relied on long term.

95% of attenders firmly agreed that a sense of connection with the performer(s) during the livestream is important to them; 94% firmly agreed that performers talking to them during the livestream makes them feel connected; and 82% agreed, including 36% agreeing strongly, that performers acknowledging individual attenders' presence in the audience during the performance (e.g. by mentioning their name or answering a question they've asked) made them feel connected. This sense of connection and dialogue can only be achieved during a live performance, which is a value livestreams have over recordings.

Occasionally if an artist has recorded their performance and streamed these as an event it can feel as if you've been charged to watch a video. The difference for me is that the artist should be present at the event, either live performing or interacting during the event. A lack of artist 'presence' during a live event would make me think twice about participating again - ATTENDER

[Livestreaming] competes with so much on-demand streaming/download that I am lazy about committing to a specific time to catch something live that is not personally interactive - ATTENDER

The comments section in streamed events from venues that I regularly attend have been full of familiar names and add to the sense of an audience watching a performance together. Without that too often it's like watching a YouTube video - and there are already thousands of interesting YouTube videos I can watch - ATTENDER

Importantly, the sense of being in the moment with the performer and other viewers in real time changes audience behaviour and makes viewers more invested in a live performance, as outlined by

Ric Salmon of livestreaming company Driift.

It's convenient to be able to watch [a pre-recorded show], but you dip in and out of it. You watch a minute or two, then you get distracted by something else. The average viewing time for our [60 minute, livestreamed] shows has been 52 minutes - RIC SALMON, DRIIFT

This is supported by Facebook, which, in 2016, stated that 'people spend more than 3x more time watching a Facebook Live video on average compared to a video that's no longer live' and that 'people comment more than 10 times more on Facebook Live videos than on regular videos'.

If the connection that comes through 'live' is important to attenders then musicians would do well to work on that particular aspect of their streams.

People are used to watching pre-recorded content for free on YouTube and other social channels. 'Live' [is important because] live creates immediacy, energy, authenticity, and ultimately presents something to the fan that feels unique and different to what they might ordinarily get for free. [...] Differentiating a live performance from a non-live one, the easiest way to do that is interacting with comments. If you're interacting with comments in real time there's no way you could do that in a pre-recorded [concert]. The comments really solidify it that people are out there. It becomes a dialogue - this is what we're looking for in any live performance - it's a dialogue, it's not a one-way thing - DAN TEPFER, JAZZ PIANIST

If the authenticity of 'live' is of value it would be good industry practice to make it immediately clear to viewers if the show they are watching is, in fact, live rather than pre-recorded. For musicians wanting to keep their livestreamed performance available for 'on demand' viewing, even if it is for a short period of time, this could mean labelling the recording as 'VOD' or 'Video on Demand'.

There is also value in keeping the live experience live only. While performances that only exist in the

4.7 Value in Livestreamed Concerts

moment might not be convenient to all attenders, they create a 'be there or miss it' moment that is also inherent to live performances in venues.

I have a t-shirt produced for an event that was ticketed, and it's quite charming how it comes with the same "I was there!" feeling that tour merch can invoke - ATTENDER

Ric Salmon of Driift explains this further.

If you miss [the livestream] that's it. In the same way that, when you go to a great show there's a sense of loss at the end of the show. If you've seen an incredible event, you know it can't happen again. Maybe you captured a song or two on your mobile phone but it's never the same. So, [keeping livestreams live] is creating value, not only in its uniqueness, but also in its scarcity - ATTENDER

Value 3 – New Format, New Opportunities

Livestreamed concerts are not the same as concerts in physical venues, recorded concerts available as videos on demand, or TV broadcasts.

Livestreaming is a relatively new format, with both musicians and attenders still exploring how best to engage with it, but there are clear signs that many appreciate the possibilities that the new medium offers. Attenders particularly seem to value a new way of connecting with performers and they also seem to appreciate concerts that are happening in locations different to the usual venue or concert hall.

I like the better interaction with performers – e.g. spoken introductions or commentary on the music - ATTENDER

They're a new thing, and will develop. The kitchen intimacy is good, as are some different, camera friendly, approaches, including performances in interesting locations that wouldn't work with a live audience, that have characterised some of the best live streams. And there's no coughing during quiet passages of acoustic music: great! - ATTENDER

The opportunity to see how the event was staged was really interesting, using a venue in a very different way to it would have been attending in person - ATTENDER

I think live stream is a new and exciting mode of transmission and connection with audiences both old and new. Originally borne out of necessity I think it will develop further and new levels of interaction and connection between audience and artists will develop. Exciting times! - ATTENDER

Both musicians and attenders acknowledge that the purpose of livestreaming should not be to try and imitate performances in physical venues.

Livestreams should be seen as another media, rather than as a substitute for live gigs, as it's a different experience, with its own merits - ATTENDER

Livestreaming should move away from replicating the traditional concert experience - MUSICIAN

I have watched some shows that did not adapt to the new format, kept a sense of distance and "crowd" atmosphere. I did not enjoy them as much as more intimate affairs, which were adapted and intentional with the livestream format - ATTENDER

With 84% of musicians agreeing that, long term, livestreaming should embrace new artistic possibilities made possible by the format instead of simply replicating performances in physical venues, the question is what those possibilities might look like. Beatboxer SK Shlomo particularly appreciates

4.7 Value in Livestreamed Concerts

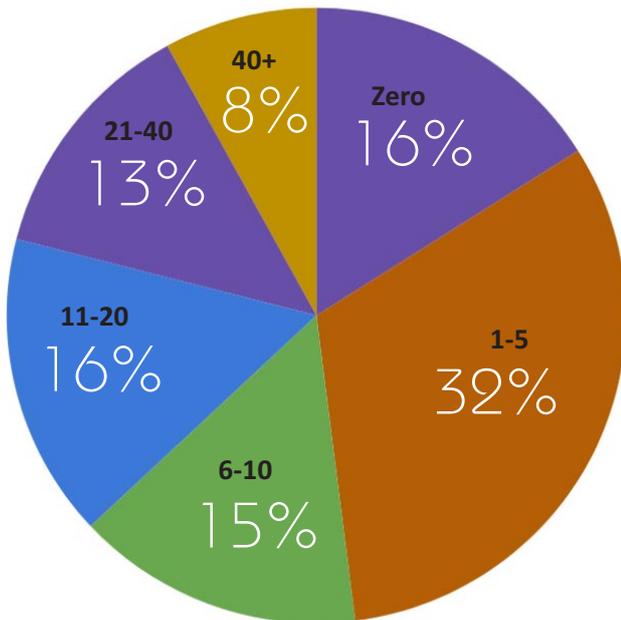
[With live streaming] you got that whole global, remote factor. We've done so many things now, like making music with people who are in different continents at the same time. If I was trying to curate a concert series in a music venue, in a real venue, where I'd have a different guest each week or a different show each week – that would be just a ridiculous proposition! But I've got into a rhythm now where I'm able to produce and market a show every week that's different to the one before. So fun and I did all that from my bedroom! - SK SHLOMO, BEATBOXER

the opportunity to collaborate with artists from other parts of the world during the same livestream.

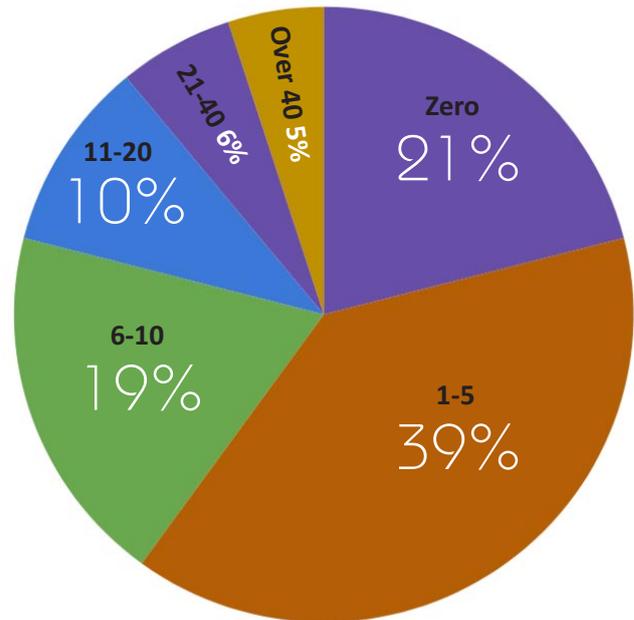
Online real-time music (ORM) also offers new possibilities, as it enables musicians from different locations to perform together in the same livestream without latency problems. ORM software such as JackTrip has already been used by some musicians, including jazz musician Dan Tepfer, for duo and trio performances, during the pandemic.



4.8 Generating Income from Livestreaming Performances



• Number of livestreams watched



• Number of livestreams attendees made a financial contribution towards

84% of attendees had watched at least one livestream during the pandemic year.

For the UK overall, this figure might, however, be lower, as attendees with an interest in livestreamed concerts may have been more likely to have chosen to participate in the research project.

The average number of livestreams attendees had watched in the pandemic year was 10. However, the average number of livestreams attendees had paid for or donated to was 4.

Amongst attendees that had watched a livestream 21% had paid for more than 20 livestreams, while at the other end of the spectrum 21% had paid for none.

In the group of attendees that had paid for a livestreamed concert at some point during their life, 76% hadn't spent anything on them prior to the pandemic and those that had spent something had

only spent relatively small amounts (11% up to £20, 13% over £20 annually). By contrast, almost all attendees of the same group had paid for watching a live streamed performance in the pandemic year and spending amounts were higher, with 53% spending over £50 and 11% spending over £250 annually. While these amounts are not substantial, they nevertheless indicate a willingness to pay for livestreams and an upwards trend in the amounts being paid.

The highest amount attendees, on average, spent on one livestream was £17.25 and the lowest was £5. For a livestreamed concert by an artist they were a fan of, 27% of attendees indicated they would be willing to pay over £20. For a concert by an artist they were unfamiliar with, 49% of attendees indicated they were still willing to pay over £5, with only 21% not wanting to pay anything at all.

4.8 Generating Income from Livestreamed Performances

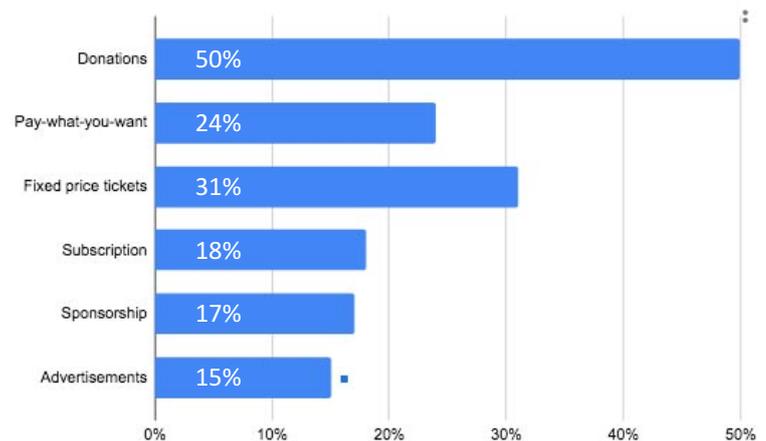


To monetise their livestreamed performances, 27% of musicians collaborated with a co-promoter (such as a venue, festival, or concert series), generating coming through a 'box office split', so by sharing income from ticket sales. 56% of performers were in the fortunate position to have been offered a fixed fee from a promoter for a livestreamed performance.

Musicians that promoted their own livestreamed performances, thus taking the financial risk of broadcasting the streams, decided to monetise their performances through the following methods shown in the lower chart.

All these methods were broadly regarded as quite unsuccessful by musicians, with the exception of donations, which was seen as quite successful, and advertising, which was seen as very unsuccessful.

71% of musicians felt negative about the income they had generated from livestreaming for themselves, including 26% that felt extremely negative. By contrast, a group of 23% felt somewhat positive about their income generation. Musicians were split in their opinions about the future, with 56% firmly disagreeing and 44% broadly



• Monetisation methods used for livestreaming

agreeing that, long term, earnings from livestreaming will provide a viable, additional income stream for musicians.

Financial Attitudes towards Livestreaming

Both attenders and musicians disagreed with the statement that livestreamed performances should be free to watch, indicating that both groups acknowledge the intrinsic value of livestreaming.

However, 93% of attenders and 80% of musicians agreed that tickets for livestreamed performances should cost less than tickets for live performances in a physical venue. In this context, it is noteworthy that livestreamed performances, when jointly experienced by a group of two or more attenders, only require the purchase of one ticket, while

4.8 Generating Income from Livestreamed Performances

performances in physical venues would require the purchase of multiple ones. This means that, even if similarly priced, attending livestreamed performances with two or more people is much less expensive than attending concerts in physical venues.

In the comment sections attenders noted that the quality of livestreams had varied during the pandemic year, making it difficult for them to assess the value of a ticket price in advance of watching a stream. For this reason, some attenders were hesitant about buying a ticket.

Live-streamed concerts vary a lot. I go to some with professional sound engineers and some without, some held in venues and some from people's homes. Every artist does it differently so it's hard to assess general quality - ATTENDER

They are a very mixed bunch, from home concerts using just phone or iPad mics, through to really well produced events - ATTENDER

The sound quality and streaming quality is so variable that I'm reluctant to pay money for an event, in case it turns out to be poor - ATTENDER

Often visuals and audio aren't professional enough to justify a paid stream - ATTENDER

Attenders acknowledged that the quality of the technical aspects of livestreaming is improving and there is also an expectation that quality will continue to improve.

They have definitely improved as time has gone on and artists have invested in technology and Internet and often sought help from Videographers to improve their products - ATTENDER

Quality of presentation and IT technique has varied significantly but people are learning and improving all the time and some livestreams have been very high quality indeed - ATTENDER

The experience varied massively. As it becomes more the norm to live stream, I expect the quality to improve - ATTENDER

Attenders indicated that they would be willing to pay for livestreamed concerts when it was inconvenient or impossible to attend a concert by the same artist in a physical venue, or when concerts had sold out for the physical venue but were available as a livestream.

There have been many times when I have wanted to attend gigs but various circumstances prevented me. If, in these cases, a livestream had been offered at a reduced ticket price I definitely would have paid. For this reason I really hope livestreams continue to be popular once we can get back into live venues- ATTENDER

There are concerts I miss due to other activities that I'd be able to attend. [I'd also attend livestreams] tours that don't come here that I'd love to see, and at times when a show sells out before I can get a ticket - ATTENDER

Free-to-Access Livestreams

At the beginning of the COVID-19 pandemic, many musicians turned to livestreaming simply to connect, through performance, with others.

Some were motivated by a desire to share their music-making with those in need, others by the wish to create 'normality' in continuing with their profession. This resulted in many livestreamed performances being offered for free. As the pandemic carried on, however, thoughts turned to monetisation, particularly for those musicians unable to receive government support.

As indicated in the survey responses, donations

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were, on average, seen by musicians as a somewhat successful way of monetising free-to-access livestreams. Donation systems, such as Buy Me a Coffee or Ko-Fi, are easy to access for attenders and don't require having to create an account. Online payment system PayPal is also popular for donations, as many attenders already have a pre-existing account.

Monthly donations through online membership services such as Patreon or through streaming platforms such as Twitch or YouTube are another option for musicians to monetise free-to-access livestreams, however, they were seen as a somewhat unsuccessful method. For musicians with a large following and/or for those followed by a specific demographic, sponsorship or brand partnership might be an option.

As with any 'product', musicians need to have a market for their activities. For musicians new to livestreaming and those wanting to establish themselves more firmly on livestreaming platforms, it is vitally important to perform regularly, at least weekly. This allows for a gradual build-up of followers and may help form an online community that not only joins the livestreams for the music itself but for social contact with fellow attenders.

I think it really shows the value of having a large well engaged fan base. I was only making £200-£300 on each live stream due to the size of my fan base, but friends with bigger fan bases were making a lot more - MUSICIAN

Sussex-based cover band Livi in the Middle have successfully monetised their free-to-access livestreams on Twitch. The band, which, apart from occasional performances at weddings in pre-pandemic times, have exclusively performed online, started livestreaming four years ago and now have 20,100 followers and 482 subscribers from around the world, with the latter contributing a monthly fee.

Monetisation also comes through donations in various forms. Attenders can make song requests and a \$5 donation propels a request to the top of the queue of songs to be performed. Their most loyal donor, who they have never met nor have had direct contact with, has donated a total of \$8,015.

Crucially, Livi in the Middle allowed their

following to grow organically rather than pushing for subscriptions or donations.

For our channel in particular, we've gone the non-pushy route and not tried to force anyone to donate. It's more that if they feel they want to support us, then they can - LIVI IN THE MIDDLE

Livi in the Middle perform at 6pm on four nights during the week as well as at 2pm every first and third Saturday. These times allow attenders from around the world to join, time differences being an important consideration for global livestreams.

Free-to-access streams can also be used less for immediate monetisation but as part of a longer term strategy, as exemplified by beatboxer SK Shlomo.

I didn't want to have to feel like I was trying to sell [the livestreams] ticket by ticket. For me it's more about you go to your community, you build your following and then through that there's other ways, you can make a living from it. Like I do a lot of brand partnership work and I do a lot of private, corporate work - SK SHLOMO, BEATBOXER

The many concerts classical music venue Wigmore Hall in London has livestreamed since the start of the pandemic are also free-to-access. While donations raised an impressive 1 million Pounds, Artistic and Executive Director John Gilhooly's long term strategy is to use livestreams for brand-building and to put the venue firmly in the international arena. This in turn will allow him to attract wealthy donors from around the world, who represent a significant income stream for the organisation.

In post-pandemic times, musicians will also be able to use free-to-access livestreamed performances as a tool for attracting attenders to their concerts in physical venues.

Live-streaming, not unlike promo videos or gig 'snippets', is a great marketing tool to get people to become aware of you, for bookers to look at to decide on programming for their venue, and to increase your numbers at a physical gig - MUSICIAN

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However, when free-to-access livestreams are offered to audiences, it is vital that musicians have a strategy to ensure that they will benefit from them financially in the long run. Questions of value come into focus in the context of social platforms such as YouTube and Facebook that promote a culture of free. Chris Sherrington, who runs The Fulford Arms, a concert venue in York, highlighted the importance of putting value on livestreamed content.

There is less impetus for us to do stuff just on social because we want to be able to generate some revenue from it, and also, I think it's mainly about the importance of putting value on culture. As soon as things kind of scramble to social for free it becomes very difficult, it kind of devalues it - CHRIS SHERRINGTON, THE FULFORD ARMS

Without a monetisation strategy, there is a danger that free-to-access livestreams will be treated like any other free video content on social media.

Ticketed Livestreams

For musicians with a large following ticketing livestreams is a relatively straight-forward way to monetise the performances.

Lucy Spraggan's first livestreamed concert in the pandemic year attracted 1,073 ticket buyers at a ticket price of £15, while folk artist Karine Polwart's concert as part of the Live to Your Living Room series sold out, attracting just under 1,000 ticket buyers, with standard tickets costing £15.

The pandemic has had a negative impact on the disposable income of many potential attenders, prompting some musicians and organisations to offer tiered ticketing. Livestreaming folk concert series Live to your Living Room offers three options, with a standard ticket costing £15, 'pay a bit less' ticket £10 and 'pay a bit more £25', allowing attenders with little disposable income to pay less and attenders with larger disposable income to give more.

Having paid for a ticket, attenders tend to be more invested in the performance and, as outlined in the 'Values' section of this report, will likely stay longer. Dan Tepfer performs free-to-access livestreams once a week but also gives occasional concerts that are ticketed.

The difference between [a free] and a ticketed livestream is vast. When I do a ticketed livestream, I'm honoured that people have decided to pay money to come, and I want them to feel like they're getting their money's worth and that I value their support [...] There's something at stake both for me, in the sense that I don't want people to be disappointed, they've paid for this, and for the audience, because they've paid for it and they don't want to be wasting their time. The people that come – they've cleared their schedules. I can see attendance in the livestreams and for the ticketed livestreams it tends to be super steady. It's really consistent – people show up pretty much on time and they stay. They've paid and they've decided to be there. With a free livestream, it's varying all the time - DAN TEPFER, JAZZ MUSICIAN

Interestingly, 62% of attenders felt that the cost of accessing livestreams behind paywalls (i.e. those that can only be accessed through payment) was not a barrier to watching livestreams, so, in principle, attenders are quite willing to pay to see a livestream they are interested in.

Musicians that have been livestreaming their performances free of charge might assume that their followers would be reluctant to pay for a ticketed performance. This, however, doesn't seem to be the case – 78% of attenders would be willing to watch a livestream from a musician that performs or has performed some other livestreams for free.

The difference might lie in the content that is offered. As Dan Tepfer explains, his one-off, ticketed livestreams present special projects or collaborations with other artists, therefore adding value to the experience.

Tepfer's model of offering occasional ticketed events in addition to his free-to-access livestreams would allow musicians to build up their following over time while also generating income. Another option for reaching a wider audience would be to collaborate with a venue, which would combine interest from an artist's existing following with potential audiences that trust the venue to present interesting artists.

4.9 Outlook into the future

A large percentage of musicians and attenders, 71% and 68% respectively, broadly agreed that once venues are safely open again, livestreaming will be a significant part of the music sector's landscape.

There also seems to be confidence in the future of livestreaming within the music industry. In November 2020, Bandcamp, a platform popular with musicians wanting to promote and sell their music and merchandise online, announced the launch of Bandcamp Live, a livestreaming service with integrated ticketing platform.

World-leading promoter Live Nation bought livestreaming company Veeps in January 2021 and most recently announced that it would furnish over 60 of its live physical music venues in the US with livestreaming equipment, 'giving artists lots of flexibility to choose when and where they want to add the element of streaming to a show', which essentially makes 'hybrid shows', accessed by both audiences in the venue and virtually, a feature of the live music landscape.

Global Reach

Both attenders and musicians firmly agreed that livestreaming will be a successful tool for reaching new audiences in geographical locations musicians had not physically toured to.

The audience [for my livestreams] is biggest in the UK, then America, then Mexico, Australia, across Europe, India is really big. They are mostly territories that I've been to, but not in the last few years. So, it's all about online audience and getting those international audience members. It's so cool, there's no way you could do a concert that would reach them all in real life – you would have to spend a year on a world tour! – but you can do it all in one night -
SK SHLOMO, BEATBOXER

This certainly rang true for Lucy Spraggan, whose livestreams attracted attenders from many countries of the world, including Australia, New Zealand, and Hong Kong, that she had never toured to. Even for musicians that have toured extensively the global reach offered by livestreaming is beneficial, as it keeps them connected to audiences in other countries.

Audience reach is a clear advantage of livestreaming and one that will likely sustain and expand its use beyond the pandemic. Questions remain about how livestreamed concerts will be used within the music industry's ecosystem and if livestreaming will affect ticket sales for concerts in physical venues.

To limit access in countries artists tour to, livestreaming could be curtailed by 'geo-fencing' or 'geo-blocking' specific geographical areas, but Ric Salmon of Driift, whose company has livestreamed concerts to 171 countries during the pandemic year, thinks that livestreaming taking place in physical venues presents little risk of cannibalisation.

It's ultimately two different things, one's not meant to replace the other and they're two different experiences. It probably drives fans more to want to buy an actual ticket if they've seen the live stream. We've got some evidence to support that already. A couple of tours have gone on sale of artists after the live streams happened and the sales have spiked enormously. You wouldn't do 7, 8, 10 livestreams in the lead up to a tour but doing a livestream around an album release nine months before you go on tour, perhaps just before you put a tour on sale, that just helps the momentum of the campaign -
RIC SALMON, DRIIFT

Livestreamed concerts supporting album releases certainly worked for Lucy Spraggan, whose recent album reached number 5 in the UK album charts as a

4.9 Outlook into the Future

direct result of the sales that were made during her second livestream.

The global reach might be particularly important to UK-based musicians in a post-Brexit world. With many musicians deterred from touring in Europe by visa and cost considerations, livestreaming will potentially enable them to access audiences otherwise out of reach.

The Brexit mess will mean livestreams will be the only option for many musicians, both domestic and international, going forward - ATTENDER

Musicians and attenders firmly agreed that, post-COVID, livestreaming will be a successful tool for reaching audiences that might be reluctant or unable to visit physical venues. This is also outlined by Salmon.

Geographically, there's a new audience because if you think about a larger artist that's doing an extensive global tour, they only travel to a small number of cities in the grand scheme of things, and you're only getting to fans that live somewhere near that city. So, that [also] asks a lot of socio-economic type questions – the cost of getting to a concert, buying the ticket, traveling to it, traveling back from it, food and drink when you're there, it's way out of the reach of the vast majority of people. It pushes concert going into a privileged few. And so, in a way, [livestreaming] globalises and democratises live music because it makes it more accessible. The price point is a lot cheaper, anyone can go to it wherever they are, as long as they have an Internet connection. So, it really opens it up to a global audience - RIC SALMON, DRIIFT

Cat McGill, who runs Live to Your Sitting Room, an online concert streaming platform that specialises in livestreaming concerts of folk, roots, and acoustic music, agrees that livestreaming makes live music more accessible, while not taking anything away from live performances in physical venues.

We believe that the access factor is going to play a really big part in our future for people who can't get out to in person gigs or don't feel safe going to in person gigs. The people who want to go to an in-person concert would go anyway and so I don't think that the digital concert would take audiences away, those who would go into a [physical] venue but [livestreaming] would allow more people to access the gig. Like if [the artist] is not [performing] anywhere near you or if you live in the middle of nowhere or you can't make the date or whatever then it [offers] a way for those people to be able to access the artist - CAT MCGILL

The belief that livestreaming will, in many ways, complement rather than replace concerts in physical venues was also expressed by several attenders in the comments.

Livestream should not stop after covid. It should enhance/enlarge not restrict artists audience. Basically I don't see it as an either or, it's a great addition to live, which I will always support, but I'd appreciate the broader opportunities offered by livestream - ATTENDER

I will certainly consider livestreaming as an additional way of potential audiences accessing performances once they return - MUSICIAN

I think that live-streaming will be a valuable addition to live events to reach audiences who live further from the city where the event is being held - MUSICIAN

I think it is an important additional medium for reaching a wider audience, and I hope performers and venues continue to offer more livestreaming options alongside in-person attendance in the post-COVID era. As with e-books and printed paper books, I think the two meet slightly different needs and can happily co-exist - ATTENDER

4.9 Outlook into the Future

While it remains to be seen what happens in practice once venues are fully open again, signs suggest that livestreaming will be a helpful additional feature of the musical landscape as opposed to a threat to the existing scene.

Communication Challenges

Creating a sense of connection and engagement is clearly an important feature of live music performance, regardless of whether a performance is delivered in a physical or virtual space.

However, virtual concerts come with certain limitations and so audience/performer engagement will need special consideration as future livestreaming innovations are introduced. According to survey results, the more musicians agreed that concerns about audience engagement are a barrier to livestreaming, the fewer online concerts they performed.

Therefore, technology will need to be further optimised to support new forms of engagement among attenders and between attenders and performers during livestreams. Such innovations may prove pivotal in making livestreaming a more attractive option for musicians and audiences alike beyond its function as an alternative to live concerts in physical venues during the COVID-19 pandemic period. At this moment in time, these developments are still in their infancy.

There's a tech company that we're going to be partnering, which will enable the viewer to interact with the [performer/speaker] and to be able to send video messages and text messages and join group boxes with friends. We believe that, to have the collective experience in whatever way you want to do it, is going to be an important part of the way that these types of events evolve but the tech itself is in its early iterations at the moment - RIC SALMON, DRIIFT

Hybrid shows, where performances taking place in physical venues are livestreamed to audience at home, also face a communication challenge.

Strategies and technologies for enhancing communication during livestreaming will need to be

The last thing I want to do is do a real live show and then just stick a camera on in the corner of the room and the people watching online feel like an afterthought. I've done that in the past and it's not really been that engaging because I've been talking to the audience in the room, not really the people at home. [With hybrid shows the question will be] is it going to be a live streamed show that happens to have an audience in real life there? Or is it going to be a real live show that happens to have an audience online? - SK SHLOMO, BEATBOXER

explored further and best practice established and shared for the format to thrive.

Top-billed Artists versus Artists with Smaller Reach

Musicians' biggest concern around livestreaming was not being able to earn enough income to make it worthwhile, with firm agreement from 83% of musicians that this was a barrier preventing them from livestreaming or livestreaming more.

While top-billed artists will no doubt generate direct income from livestreaming concerts post-COVID, the picture is less clear for artists with smaller reach. This concern was expressed by some musicians in the comment section.

Live-streaming seems to work fairly well for established, top-billed, high-earning acts. They have the promotional machine and following behind them to generate enough income from an event, with little more effort than a large live concert - in fact, arguably with less effort. For the rest of us, there is no monetary value in [livestreaming] beyond perhaps a solo or duo act with a decent pre-existing following - MUSICIAN

The potential for monetisation from live streaming would seem to be even more heavily leaned towards the very top tier of the industry than usual - MUSICIAN

4.9 Outlook into the Future

While top-billed musicians generate enough income to hire a venue, equipment and technicians for their livestreams, many musicians with smaller reach were concerned about the cost of livestreaming and expressed a need for financial support for future livestreaming activities.

Costs of producing the concerts need to fall, for [livestreaming] to be viable for small groups with limited likely audiences - MUSICIAN

We'll need a cash injection to buy our own cameras, capture card and to hire in specialists - MUSICIAN

Would be good to have grants for people to buy live streaming equipment that they would not have budgeted for beforehand - MUSICIAN

If a space was available post covid that had good wifi coverage and wasn't expensive to hire I would livestream - MUSICIAN

I desperately need a quality DSLR camera to get professional quality visuals to make it feel like ticket buyers are getting a decent show. Without it I'm paying sound and visual techs to do my shows - MUSICIAN

The internet is saturated with livestreaming musicians at the moment, and it's going to be hard in the future for people who don't have money to invest in expensive gear to make the stream look and sound professional - MUSICIAN

Subsidised access to technical equipment, training and venues suited for livestreaming would be instrumental in advancing musicians' livestreaming activities and, crucially, enable them to monetise their livestreamed performances. Arts Council England's 'Creative media and digital activity' grant scheme is a valuable opportunity for musicians, however, if livestreaming is to become part of the UK music industry's infrastructure, further support is needed to

provide individuals and organisations, such as venues, with equipment, knowledge and/or access.

Questions about the monetisation of livestreams fit within broader discourses on the monetisation of music content, including unrest about the small amounts of royalties paid to artists from audio streaming services such as Spotify, Amazon Music, and YouTube Music. Several musicians expressed concerns about large companies potentially monopolising the new format in the future while some expressed a hope that livestreaming could, in fact, democratise the live music circuit.



[We] should set up a public space for live streaming and music in general, a place following democratic views, where everything is put to a vote by artists and audiences. Unlike private sector like Spotify, iTunes, YouTube etc. who impose their highly unfair rules, taking advantage of musicians and artists! - MUSICIAN

Livestream should be a democratic tool to break the monopoly on performers from large management agencies - MUSICIAN

4.9 Outlook into the Future

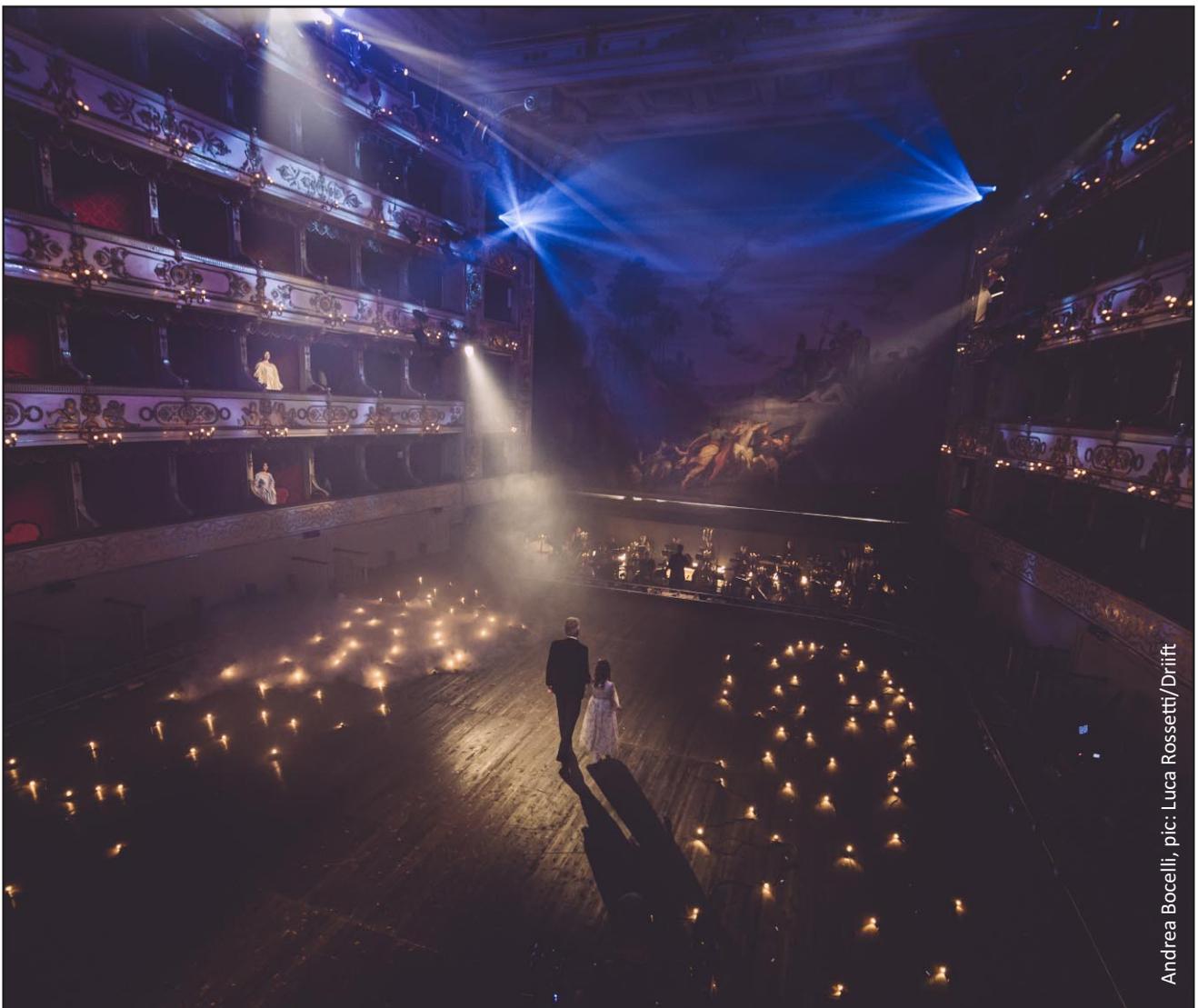
The challenge will be for small organisations and individuals as larger ones will try and use their financial strength to control the format (thinking of the dominance of record companies last century and audio streaming services this.) - MUSICIAN

The question of whether livestreaming will prove to be a democratic tool or become monopolised by international corporations remains to be answered but there is little doubt that the format will continue to form part of the music industry post-COVID. While the vast majority of musicians will prefer to perform in front of a physical rather than a virtual audience, the benefits of livestreaming are beginning to be acknowledged.

I do think livestreaming is now here to stay. It will be an important part of an artist's reach and connection with audiences, but complimentary to face-to-face to performances, which will still be the pinnacle of our craft - MUSICIAN

Livestreaming has emerged as something of an open experiment with dominant models yet to fully ferment.

Although livestreaming has limitations and poses many challenges, in particular in relation to income generation and audience/performer engagement, it also presents opportunities for both performers and attenders – performers benefit from access to a substantially wider audience, while attenders are able to view live performances from venues and artists from around the world, at much lower cost.



Andrea Bocelli, pic: Luca Rossetti/Drift

5 Recommendations



For livestreamed performances to thrive and become a reliable, additional income source, the issues preventing musicians from livestreaming must be addressed by the musicians themselves, by the industry, and by the government. There is also scope for further research investigating livestreaming practices.

Musicians

- Attenders highly value emotional engagement with the performer. This means that musicians need to develop their livestreamed performance practice, engaging with attenders in ways the new format allows.
- Online audiences and communities around livestreaming artists are built over time. This means that musicians need to livestream regularly, at least

weekly to allow for a gradual increase in attenders.

- While less value is placed by attenders on livestreamed performances compared to performances in physical venues, research has established that attenders are willing to pay for livestreamed performance. A shift in thinking about the value of livestreams and a move away from offering livestreamed concerts without any monetisation (such as donations or ticketing) is required.
- Many attenders value good quality in audio and video transmission of livestreamed performances and expect the technical aspects of livestreams to improve over time. This requires musicians to invest in technical equipment and knowledge, ideally enabled by government grants.
- Livestreaming offers new creative possibilities,

5 Recommendations

particularly in terms of collaboration, presentation, and audience engagement. Rather than attempting to replicate the situation of live concerts in physical venues, musicians would do well in exploring the new possibilities.

Government

- Musicians are held back from livestreaming by a lack of technical equipment and a lack of technical knowledge.

A grant scheme is needed, enabling musicians to buy technical equipment and for acquiring technical knowledge. This grant scheme would also be of benefit to venues and rehearsal studios wanting to expand into livestreaming.

- Licensing global livestreams is very complex. No licence is available that would allow musicians to livestream any content to any country. A review is needed that establishes how this problem can be addressed.

- Following on from COVID and Brexit, touring outside of the UK is currently costly (because of visas and/or COVID tests), often restricted, and administration-heavy. While this might change at some point in the future, it is likely to prevent musicians, especially emerging musicians, from touring abroad. A government-funded livestreaming platform would enable UK musicians to showcase themselves to an international audience and allow them to build up a following in other countries without having to tour physically to these regions. While the majority of musicians are likely to want to tour in post COVID times, reduced touring activities might also have an environmental benefit.



Industry

- Currently, there are not enough venues suitable for livestreaming musical performances available to musicians.

- Venues and rehearsal studios would do well to invest in livestreaming equipment, potentially with support from government grants. This would result in an infrastructure that enables musicians and the sector as a whole to establish livestreaming as an additional income source.

- This research project has shown that emotional engagement during livestreaming, both with the performer and with fellow attenders, is important to attenders. Technological innovation is needed to further develop real-time online communication during livestreams.

Academia

- This research project considered the livestreaming of musical performances for all genres.

- However, because practices and concerns differ for each individual genre, further research needs to be conducted in this area to tease out the needs and expectations of musicians operating in specific genres.

- The forming of online communities is of distinct value to attenders and, by extension, to musicians. Research into how communities are formed around livestreams may serve to inform and support musicians wanting to establish themselves on livestreaming platforms.

- Livestreaming performances is a relatively new practice. Once live music venues are fully open again, further research would serve to establish how livestreaming concerts fare in a post-pandemic world, in which live music in physical venues is once again an option for concert attenders.

6 Author Information and Thanks



Julia Haferkorn, Principal Investigator, joined Middlesex University in 2015, after having worked in the music industry for 20 years.

Initially in music publishing, she founded the artist management company Haferkorn Associates Ltd (1998-2014) and the production company Third Ear Music Ltd (2010-date).

She collaborated with a range of new music artists, including Apartment House, Matthew Herbert, Lore Lixenberg, the Arditti Quartet, and Icebreaker, and has set up concerts and tours all over Britain and world-wide.

Other posts include Artistic Director of the British Composer Awards (2014-16) and Stage Director of the Chinese New Year celebrations on Trafalgar Square (2015-19). She has co-edited the book *The Classical Music Industry* and is Programme Leader of the MA Classical Music Business. www.classicalmusicbusiness.org



Brian Kavanagh, Co-investigator, is a lecturer in digital innovation in the Department of Digital Humanities, King's College London where he directs the MA in Digital Asset and Media Management programme.

He is a classical guitarist whose research focuses on innovation within the classical music sector in response to disruptive technology. Recently published work investigated how market and aesthetic logics, and the collective identity of classical music enables and contains innovation.

Outside of academia, Brian is active as a photographer and recently had a solo photography exhibition titled 'Portraits of Iran' in Bush House, London. www.briankavanagh.com



Sam Leak, Co-investigator, is a London-based Jazz pianist described by JazzFM's Helen Mayhew as 'one of the brightest stars in the Jazz piano galaxy, a heavenly improviser, and a brilliant prospect for the future.'

His eponymous album 'Aquarium' was listed in MOJO Magazine as one of the 'Top Ten International Releases of the Year, 2011.' Jamie Cullum has described his cohort as 'the heavyweights of the British Jazz scene' and The New York City Jazz Record described his most recent album, 'Adrift,' as "magical ...constantly evolving and engaging."

Leak is a lecturer in music at Middlesex University and is currently completing his doctoral thesis at the University of Cambridge, for which he has been researching whether absolute pitch can be learned by adults. www.samleak.com

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