Collaborative Music Production via Live Streaming

Hammad Rashid

University of West London
hammad.rashid@uwl.ac.uk

Abstract

Live Streaming is an online content creating activity. A new wave of users has been utilising online platforms to create and share a variety of live digital content. Multiple styles and genres of live content can be observed on major streaming platforms such as YouTube and Twitch. Some of the popular themes for live streaming include live gaming, art reviewing, and discussions on educational topics. One of the reasons for the popularity of this phenomenon among internet users is the ability to be part of a community and interact with like-minded individuals. This connectivity has broadened the ways in which musicians can collaborate with other artists from different locations simultaneously. This paper discusses collaborative aspects of live streaming for music production. Multiple live streams were conducted to understand the potential of this phenomenon for music producers. These streams included song writing, musical instrumentation, music production, mixing, and mastering sessions. All these sessions were conducted via YouTube's live streaming platform. The paper explores the process of collaborating via live streaming alongside how this practice created a micro economy and a community of artists who showed up daily to watch.

KEYWORDS: Live Streaming, Music Production, Online Collaborations, DAW Workflow

Background

On 16th of March 2020, the Prime Minister of United Kingdom announced new rules for non-essential contact and travel (Institute for Government Analysis 2022). Since that day, the United Kingdom started to move towards unprecedented measures in the form of lockdowns. This announcement moved the trajectory away from in-person collaborative activities in most industries. The entertainment industry suffered huge consequences in the form of revenue and employment loss (MU 2021).

The music industry is known for being a 'Gig Economy', which means individuals involved in it often earn on a project-by-project basis rather than a formal employment with work -related benefits (Solnik 2018). From March 2020, music producers faced similar challenges to workers in other 'non-essential' industries, which included the closure of recording studios due to social-distancing laws.

While the Covid 19 pandemic halted revenue streams for numerous performing and studio-based musicians, digital technology became the saviour for tech savvy artists. The convergence of technology and social distancing brought new revenue streams for musicians willing to pivot their work into the digital landscape. Platforms such as YouTube, Twitch and Facebook 'Meta' had been widely accepted as a valid form of entertainment with viable monetisation structures for the creators. These platforms allow the musicians to share the music and content with their fans and communities alongside monetising the viewer engagement through advertisement (Sarukkai 2014).

During lockdown, I discovered the live streaming options on YouTube and Twitch which enabled music production practices to reach online audiences. This paper is about my understanding of the impact live streaming has on collaborative music production alongside the multiple ways an artist can generate revenue through these streaming services. Furthermore, two case studies have been selected from these live streams to expand on the pros and cons of collaborative music production via live streaming.

Convergence

Jenkins & Deuze (2008) argue that convergence should be observed as a collaboration between the creators and consumers of technology. For example, YouTube is constantly being upgraded with new features such as Shorts, Live Streaming and Member features. These additions are with the purpose of acquiring and engaging new and existing users to the platform. At the same time, the users are finding new ways to utilise these features to achieve their aims and goals such as ad revenue, influence marketing, branding, and promotion. Sarukkai (2014) refers to this dynamic collaboration as a 'Win Win business model'.

First, there are platforms with millions of users constantly seeking new content for social, entertainment, and educational purposes. Secondly, the 5g mobile internet users access large data files in the form of streaming. Next, there was a global pandemic which resulted in individuals being self-isolated in their homes with the technology. All these factors resulted an increased digital content consumption and creation. Statista (2022) reported that majority of social media entertainers based in France experienced an increase in their content engagement during 2020-21 lockdown. A similar pattern can be observed in the music industry. According to MRC data, Music consumption increased by 11.3% in USA during the 2021 lockdown (Dredge 2022). This growth indicates that users engaged with and became familiar with online content.

Music Production via Live Streaming

Guarriello (2019) conducted ethnographic research on a female live streamer. The research subject revealed that she had been streaming a variety of content including playing games and chatting with friends in her online communities. These live streams allowed her to collaborate with other content creators and support herself financially, largely due to live streaming platforms such as YouTube and Twitch having an existing audience. Similarly, music producers such as Mike Shinoda,[1] Disclosure[2] and MJ Cole[3] are some of the artists actively engaging with their online communities via live streams on YouTube and Twitch. The benefit of this real-time interaction with fans is that artists can get instant feedback on work in progress alongside promote their previous releases.

I started these live streams as a music educational content in which I was teaching basic music theory (Rashid 2022). These daily live streams were called 'Music Production Live Stream'. The initial streams were filmed via iPhone and an external USB mic. This format was limited to educational videos as I was not able to share my computer screen via the phone. This issue led me to research further about live streaming programs which can be used to share computer screen and audio. YouTube and Twitch allow users to share their desktop screen to the viewers. However, the process of sharing audio via DAW becomes challenging as it requires specialist audio routing programs. OBS is a free open-source program which works as a hub to connect the audio and video content into a unified live stream (2022). I used Soundflower program to combine the DAW and microphone outputs with OBS to stream the Logic Pro Sessions on YouTube. The live streams included producing music via Midi control, live instruments such as guitar/piano, and mixing/mastering songs sent by the viewers.

Monetising the Production Workflow

Bob Ross was a famous painter with a successful TV show. He would paint a new image on a blank canvas, talking about his techniques during each episode (Abel 2014). His TV show 'The Joy of Painting' aired for 11 years on PBS network during 1983 - 1994 (IMDB 2022). The concept of this show was unique as Bob's painting methods kept the audience engaged for each half hour episode. The success of Bob Ross indicates that viewers are interested in workflow as much as the output of labour. This concept of displaying workflow became the archetype for my music production live streams. I began each live stream by starting with a new session in Logic Pro. This session would populate with various musical elements as it progressed. My aim was to establish a workflow which can be utilised on each live stream rather than figuring it out with the live audience. The interaction of user and the technology to achieve successful result can be described as workflow (Exarchos 2019). Modern DAWs include myriad of options available to its users for producing music. Nahmani (2020: 72) suggests setting up and utilising workflow for performing music production tasks. The workflow affords the competition of activities affectively.

Another factor which led me towards the concept of creating workflow as a visual content was my personal interest in programming music in DAW. Rather than focusing on the result of production work, my aim has been on the process of music making. This concept translated well during these live streams as the audience felt being part of the project rather than a passive music listener. The audience members would suggest musical ideas via the chat option. These suggestions would be based on various elements in the project such as instrumentation ideas, mixing tricks, and sound choices. YouTube allows users to pay the live streamers directly via the 'Super Chat' option. This feature lets the user ask a question or engage with the content creator in real-time. In normal circumstances, an average live stream receives constant comments via chat board. However, if a user pays the live streamer via super chat; their comment is displayed on top of the chat section. This creates a social hierarchy and makes them known among the other viewers as a paid supporter.

Promotional Strategies

Over 700,000 hours of fresh content is uploaded daily on YouTube (Wise 2022). It is a challenging task for a content creator to stand out from the competition and be seen in front of the right audience. The use of targeted advertising via Google ads helped promoting the live stream to music enthusiasts. Godin's idea of 'Smallest Viable Audience' (2018: 21) suggests focussing on the niche and selected few to cater rather than aiming for the mass audience. This ideology provided a practical framework when identifying the target audience and the key members of music communities who would become the potential audience for the live streams. I narrowed down my options by focusing on musicians based in Pakistan and India speaking Urdu. Seven ad campaigns were created during the year 2021 in Urdu language. These promotional materials contained demonstration of music production process. This activity increased the YouTube subscriber count from 1k to 2.5k active subs.

Collaborations via Live Streams

Collaboration is an essential part of music to evolve and create a culture (Bae *et al.* 2016). Social distancing posed challenges to music producers specifically for the ones who have been collaborating with musicians and singers for majority of their projects. Technology played a big role during Covid 19 and afforded many artists connectivity options with collaborators online (Cremata & Powell 2017), in line with what Taylor (2016) suggests, which is that collaboration is one of the core elements in music making process. Even though the technology has made these processes possible within a DAW. The need for sharing ideas and feedback with peers remains vital for music production. It is also the joy of the activity.

Live Streaming as a medium thrives when live streamer and the audience are engaged in exchanging of ideas. I have been using live streaming as a collaborative process in multiple ways. The first one has been the interaction with the viewers

via chat messages. As these live streams are targeted to music producers and artists, the viewers are amateurs and experienced musicians with valuable insights regarding production and mixing. I received regular chat messages while producing music on the live stream regarding the instrument selection, volume levels, mixing strategies and what effects to use on which track.

The second method of collaboration on live stream is receiving vocal or instrument track during the live stream via email, WhatsApp or Instagram. These live streams felt like being in the same room as I had the collaborators joined live stream via Zoom to get their real-time feedback. The Zoom element added the dynamics of facial cues and audio chat which helped building the tracks and achieving mutually desired sound. These collaborations happened serendipitously as viewers who came across the live stream could join the Zoom session by the link provided in the description. This open access virtual studio method provided the sense of community and welcoming atmosphere.

These interactions increased my understanding of the audience and what exactly they were interested to achieve via these live streams. The collaborators included professional musicians with knowledge of music theory and technical jargon alongside amateurs with limited musical experience. I had to develop an inclusive communication strategy which could be understood by the diverse group of audience on that live stream. The technical terminology was kept to minimum while explaining each technical step to increase the audience's knowledge base and this quasi-educational interaction developed the audience's musical understanding over time. I have conducted over 400 live streams on my YouTube channel (Rashid 2022), producing more than 300 songs. Each live stream has an element of collaboration; it is either the collaborators joined via third party program such as Zoom or shared ideas via chat messages. The following section further details two live streams as case studies for collaboration via live streaming.

Case Study 1: 17 Singers and 5 Musicians

One of the challenges in conducting a musical collaboration with over 20 artists is arranging a suitable time which caters to everyone involved. Alongside the scheduling, facilitating multiple artists in one recording space has multiple challenges such as recording equipment, large spaces, and refreshments etc. I would have struggled to have 23 musicians in one studio and be able to achieve a productive workflow. However, live streaming suits this type of ensemble music production. The users are already on the YouTube platform looking for engaging content at the comfort of their location. They can send vocal or instrumental recordings via the same device they are using to engage with the live stream. This synergy among the viewers and the streamer creates a fluid connection to share ideas and collaborative content.

On 12 Jun 2021, I started the live stream explaining at the start, that today we will try an experiment (Rashid 2021a). The experiment requires more than 15 singers to sing any song of their choice in any musical scale and tempo. The purpose of this experiment was to get viewers involved in the live stream as active collaborators. My initial expectation was that if the viewers are the content, they

will enjoy the live stream and we will have a track with all the active viewers as performers. I received 17 vocal tracks via email during the live stream alongside 5 instrumental audio files such as guitar solo and piano chord patterns. The challenge here was that each singer sent a different melody in a different key. This issue was fixed via pitch correction and pitch shifter plugins in Logic Pro. The vocal and instrumental samples were chopped on the grid to conform them into a unified tempo. This live stream was 4 hours long and received 3.8 hours of watch time alongside 861 chat messages.

I have conducted a reflexive ethnographic focus group via Zoom platform with the participants involved in the collaboration (Rashid 2021a). This session was conducted as part of the 200th episode of these live streams on YouTube. The aim for this session was to understand the perspective of collaborators and how they experienced the process. One participant mentioned that it was challenging to listen to their vocal recording on a live stream without any effects. Another collaborator mentioned that not having any control on how their recording will be used was emotionally difficult to accept. The awareness of being judged by users on the internet can be challenging for singers. Hence, the recording studios usually have a selected few around the artist. This concept of letting your raw vocals be treated live in front of others has been the common theme among participants during the reflective session. In contrast, participants mentioned the ease re-send their recordings in real-time created a collaborative environment. The accessibility to a virtual recording studio from their mobile devices was repeatedly mentioned by multiple participants. Few of the collaborators had had any experience with music production, so this experience enabled them to listen to their voice with modern DAW effects. Overall, this experiment showcased the ability of collaborating with multiple artists while creating a workflow-based content for Live streaming platforms.

Case Study 2: ET Coins

Implementing innovative ideas has been the core of these live streams. One such idea was introduced by a collaborator on the stream known as 'ET coins' (Rashid 2021b). This concept started off as a running joke among the viewers but quickly became one of the most engaging factors of these live streams. ET coins works like a leader board where viewers can earn coins or points by participating in the live stream as singers or musicians. The viewer will send their audio recording via email during the live stream which can be added to the song or instrumental being worked on. At the end of each slice stream, the user with the highest number of ET coins will get to decide what will be produced in the next live stream. This incentive pushed the viewer to actively participate in the live stream which added further dynamics to the live content. These coins acted as a social currency which could only be used in the live stream for making suggestions. The leader board concept motivated the viewers to send multiple versions of recordings and better themselves as musicians. The users could also collaborate by supporting the live stream via the Super Chat feature of YouTube. This option helped generating revenue for the live stream making it a self-sustaining artistic venture.

The initial idea of these live streams was understanding the platforms available and collaborating with new artists. The monetisation aspect has been a by-product of these activities. This example of ET coins highlights a deeper aspect of community building rather than merely generating financial gains. I asked the reasons why viewers paid to be seen on the leader board in the reflective session (2021b). One of the responses was that it made the viewer feel as a part of the collective and the community. Another reason suggested was that the leader board acted as a competitive sport among the users. Observing these responses from the users shows a potential of community building and monetisation via live streaming platforms.[4] However, the focus shifting to monetisation can be a distraction and counterproductive to the core of collaborative activities.

Problems in Collaborating via Live Streaming

The challenge of producing new music in front of a live audience is a real problem. Traditionally, music production is done in studio environments where there is time to attend specific details. However, this luxury is absent in the live stream format as the viewers are watching the process happening in real-time. There is an added pressure of performing the musical phrases with detail and making minimum mistakes. I recorded live instrumentation for each stream using piano, guitar and drums. Playing the live instruments requires focus specially when it is being recorded. However, I used improvisation as the method for each musical phrase being recorded. This means none of the music was pre planned or written before the live stream. To keep things simple, the basic major and minor scales were utilised in majority of the stream. The simplicity of musical elements helped achieving recordings of live instrument with least mistakes.

Carlson & Hanna-Weir (2021) conducted a study on music conductors working with orchestras online. According to their research, Internet data lag has been a recurring issue experienced by orchestra conductors alongside musicians. I experienced a similar issue when having collaborators live via Zoom or Skype. This issue has been partly resolved by programs such as SoundJack and JackTip. However, the dynamics of music requires the interaction of musicians to be seamless and a slight time delay messes up the overall groove. Another issue was focussing on multiple aspects at the same time. I faced this issue on every stream as I would be producing music and working on the details of each element yet staying engaged with the chat messages. Catering to audience by replying to their questions while producing music simultaneously resulted the length of live streams over 2-3 hours. However, the daily practice of these streams afforded me practice being able to conduct multiple activities. This issue was resolved by allocating chat moderators, responding each chat message. The paid members of these streams volunteered to be moderators and helped keeping a smooth flow of the live streams.

Future Opportunities

The emergence of Head-Mounted devices also referred as Virtual Reality headsets have afforded the users of visually experiencing new spaces without physically being there (Fan *et al.* 2016). This technology is being experimented by various technology companies such as Meta, Google and VR Chat. The aim of these live streams is to eventually move it onto a VR platform where users can join a virtual studio in avatar forms and experience the music production in that digital space. According to the keynote speech by Mark Zuckerberg, Metaverse will allow users to connect with each other in a digital version of reality while it being fully immersive (Meta 2022). This indicates the interest of technological companies towards virtual reality. As a music producer, I found collaborating with other artists via live streaming a productive practice that helped create new forms of musical art. The introduction of Metaverse or its competition can help musicians further to explore their skills in the new digital domains.

Conclusion

Music production is a collaborative art. This collaboration includes various human and non-human actors. Beyond the active collaborators, the activity requires feedback from the target audience to ensure the music will cater the listeners it is being produced for. During the Covid 19 lockdowns, musicians struggled to find collaboration opportunities due to social distancing rules. Technology stepped in to bridge the gap between isolated artists all over the World. Fast internet connection and high-quality data streaming platforms made the collaboration process one step closer to being in the same place at the same time. One such opportunity is producing collaborative music via live streams. Platforms such as Twitch and YouTube offer free live streaming services to its user. The live stream aesthetics allow users to engage with the streamer in real-time and feel part of an online community. I started Music Production Live Streams in the beginning of year 2021 and since then have collaborated with over 100 artists from all over the World. During these live streams, we as a collective produced over 300 songs in multiple genres. The open format of live streams where anyone can send their vocal or instrumental sample allowed amateur artists to collaborate with others. The audience was able to send their music via email, live during the stream. This dynamic interaction of audience and the streamer created a community type atmosphere where new musicians and artists experimented to find their unique style in music. The ad-based revenue model alongside Super Chat option on YouTube helped sustaining these live streams economically. As a music producer, I was able to survive through my music and workflow in the times when studios were closed, and gig work was suspended due to the government restrictions. This method of collaboration is still primitive compared to sharing the same physical space. However, there are opportunities for this way of connecting with other artists digitally in future. Virtual reality might remove the little time lag digital collaborators experience which will make the process seamless and advantageous. However, the present technology has multiple opportunities for creating art and

collaborating. Live streaming is one of the emerging ways of connecting with like-minded people and form a self-sustaining digital community. The dynamic of creating music live in front of audience pushes the streamer to act quickly and learn efficient ways of producing music.

End Notes

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