

The Online Composer-Audience Collaboration

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ABSTRACT

There is a substantial amount of research on the composer-performer relationships, yet, there is little research about the dynamics between the composer and listener, a subject which merits consideration. Thanks to the internet and online video-sharing platforms, composers can directly interact with their listeners and fans. This research focuses on Jacob Collier and Andrew Huang, two artists who use online resources to collaborate with their audience by requesting compositional material from them. Huang is known for his "Fan Mash" series where he produces a song by processing fan-submitted short videos of random sounds. Collier became widely popular by producing complex reharmonizations from fan-submitted melodies and livestreaming the arranging process for his listeners. These two young artists have in common a platform for interacting and submitting content, which can result in a stronger sense of participation and identity with their audience, ultimately leading to a stronger community. This research provides a detailed description of their corresponding approaches to audience collaboration. In addition, it identifies eight categories of discourse with their audience by analyzing two specific YouTube videos and reviewing user commentary as a tool for further insight into the dynamics and interpretation of digital interactions.

1. INTRODUCTION

Online platforms are increasingly blurring the boundaries between composers, listeners and performers through collaborative environments for musical creativity. Traditionally, audiences may be engaged when listening to music, but they do not impact its creation during the creative process. New approaches to music composition through these platforms have the potential to forge creative collaborations with audiences and allow them to become active participants in the conception of a work.

There is a substantial amount of research on the creative process of the composer, and there has been an increasing interest in detailing the relationship between composer and performer. Yet, there is little research about the dynamics between the composer and listener. There are several examples of research where the focus is on audience participation. For example, in *Large Audience Participation, Technology, And Orchestral Performance*, Freeman postulates three categories of audience's interaction with the performance: as performers, sound transmitters, or influencers (Freeman 2005); and in *A Web Application for Audience Participation in Live Music Performance: The Open Symphony Use Case* (Zhang et al. 2016) and *Designing Interactive Audience Participation Using Smart Phones in a Musical Performance* (Hödl et al. 2012), the authors detail different mechanisms with which audiences can guide the outcome of a live performance by voting on pre-determined musical attributes via a smartphone app.

Additionally, several composers such as Frederic Rzewski, Iannis Xenakis, and John Cage have incorporated participatory dynamics from the audience into their pieces since the 1960's in

the form of claps, vocalizations, or producing other sounds. Some examples include John Cage's work for audience-operated turntables *33-1/3* (Cage 1969) or several of Murray Schafer's works like *Patria*, where Schafer demands from the audience "active involvement in the performance and places an intrinsic responsibility on the participants and their actions in order to achieve a successful performance experience" (Galloway 2011).

While some composers have embraced the audience as a potential creative resource, many others maintain the posture of the composer as the sole source of the musical material. This creates a clear division in the ways a musical work is conveyed to an audience, creating a "dichotomy between participatory and non-participatory interactions" (York 2019). Yet, unless the work is improvisational in nature, the participatory aspect rarely cross into existing within the creative process of the composer. All the previously mentioned examples are cases in which the audience's participation occurs only during a live performance of the work. The research presented here focuses on two cases where the involvement occurs as part of the compositional creative process, and therefore fixed in the final product. More importantly, these interactions enrich the aspects of community and identity between artists and listeners.

Thanks to the internet and online video-sharing platforms, composers can directly interact with their listeners and fans, and this relationship is in sharp contrast to the usual dynamics between the performer and the listener. This research will focus specifically on Jacob Collier and Andrew Huang, two artists who make use of these online resources to collaborate with their audience by requesting compositional material from them to implement it into their songs.

This crowd-sourced music is not a novel phenomenon, but due to the popularity of these musicians it is now a recurrent dynamic online. Huang, a Toronto-based musician and YouTube personality, is known for his "Fan Mash" series, where he produces a song by processing fan-submitted short videos of random sounds. Collier, a Grammy-winning multi-instrumentalist based in London, England, became widely popular by producing complex reharmonizations from fan-submitted melodies and livestreaming the arranging process for his listeners.

These two young artists have in common a platform for interacting and submitting content; they both share their compositional process as a video and receive audience feedback before, during, and after the creative process. This results in a stronger sense of participation and identity with their audience, ultimately leading to a stronger community. This research analyses how these two musicians use these platforms to invite their audience into their creative process and it provides a detailed description of their corresponding approaches to audience collaboration. In Collier's case the result is a livestreamed video and in Huang's case a produced video, hosted in their own channels respectively. In addition, this research postulates eight layers of discourse that can be analysed for further insight into the dynamics between composers and online audiences, and as a tool for understanding and interpreting the mechanisms of digital interactions.

2. ANDREW HUANG

Andrew Huang is a Toronto-based musician and YouTube personality. His music spans a multitude of styles and genres and he is constantly expanding the boundaries of traditional music performance and production with his skills as a multi-instrumentalist, vocalist, producer, composer, and sound designer. One thing that stands out about his music is the innovative way of turning ordinary objects into instruments for his "song challenges", a series of videos where he

produces a song based on audience suggestions by processing fan-submitted short videos of random sounds using everyday objects as instruments. His success has landed him several sponsorship opportunities, where companies like Google, LG, and Sony have partnered with him (Huang 2019) to create a song with the sounds of their products as a fresh new way of marketing to attract younger demographics.

In his video *How to make TRACKS and not just LOOPS* (Huang 2018b) published on February 12, 2018, Huang gives viewers advice in working the second part of tracks and how to avoid falling for the common bad habit of making loops that do not develop further. He finds an incomplete song project selected by his followers and decides to add a drop, so he goes to Twitter and tweets: "...I need some random short sound effects. Feel free to tweet me back with any sound you've made that you don't mind me using. If you've got video of it too I'll take it!" (Huang 2018c). Huang leaves the submission open for one hour, after which he gathers his favourite sounds. This video mentioned is the first time he showcases the clips that people sent to him, presenting the result at the very end - a heavy dubstep-like groove combined with a video montage of all the videos people sent of themselves. Three days later, Huang uploaded the video titled "*How I made a drop with random sounds you sent me,*" (Huang 2018a) where he explains in depth his creative process of editing and arranging the sounds. The main objective with this video is to explain the tricks and methods he used for editing and processing the sound bites. The sounds that the users submitted are varied, from the sounds of keys hitting a table, a water bottle hitting someone's face, or a sword being unsheathed. This is the video that will be analysed below.

3. JACOB COLLIER

Jacob Collier is a Grammy-winning multi-instrumentalist based in London, England. He has been recognized as one of the most innovative musicians of our time, hailed as "jazz's new messiah" (Lewis 2015). Not only is he pushing the limits of his music in compositional terms with his intricate and complex productions, he is also breaking new ground with the use of technology in music performance. Collier's journey began by uploading multi-track performances of himself to his YouTube channel. His fame and recognition on the internet eventually led him to Quincy Jones, who is now his manager and mentor.

Collier became widely popular online by producing complex reharmonizations from fan-submitted melodies and livestreaming the arranging process for his listeners. In 2016, Collier used the crowdfunding site Patreon to support the release of his album, *In My Room*, and created the #iHarmU campaign, (JazzRefound 2016) where donors of \$100 or more were able to send him 15-second melodies that he would harmonize and post on his Instagram and YouTube channel. The campaign greatly increased his following, and added some notable patrons include British Jazz artist Jamie Cullum, Ben Folds, and Kevin Olusola of the a cappella group Pentatonix (JazzRefound 2016). One of these patrons was Chris Costa, and Collier livestreamed his reharmonization of Costa's material on YouTube on March 2, 2018 (Collier 2018b) releasing the video to his Instagram page four days later (Collier 2018a).

This video is the third and most recent #iHarmU livestream by Collier, and his methodology has remained consistent throughout other livestreams. In his livestreams, he drafts his ideas on a Logic Pro X template prepared with several audio and MIDI tracks pre-loaded. The template is divided into four large regions: for vocals, bass, drums, and other instruments. Costa's submission was in two short parts, a melodic one and a spoken one. The lyrics are an excerpt of Costa's own

song “The Masterplan”: “My body was placed in a land of melody who decided for me [...] I want to see who did the Masterplan.” (Chriscostamusic 2016).

Collier begins working with Costa’ video and audio as the only initial sources, and as he explores different possibilities, he narrates his plans to the audience, recording his ideas by singing or with a MIDI device. The viewers can react and give him feedback in real time, which Collier sometimes incorporates into his creative decisions. It is important to note that this video was streamed shortly before YouTube’s platform was able to record the chat commentary as they were happening live, so unfortunately the live interactions Collier had with the chat were not preserved. The comments left on the video were left after the video stream was uploaded to his channel.

One of the unique factors that allows Collier to have this dynamic with his audience is because of the remarkable speed of his workflow. A composer’s creative process is rarely documented in this setting due to its usual secrecy and varying time frames depending on the composer. Collier has the advantage of being able to do exactly what he envisions thanks to his competence with the software and aural skills. What the audience is seeing is akin to a laboratory, where Collier knows exactly how every instrument and formula works but is constantly experimenting with new results. Due to the density and complexity of his musical gestures, or what Collier calls “maximalism” (Shapiro 2018), it can take a long time to externalize his ideas even at this pace. Nevertheless, throughout the entire three hours of this livestream there were very few things that changed once he had recorded them.

One clear example of his creative thinking and constant perspective of the larger conception of the work occurs during the first few minutes of the stream, from [00:14:50] to [00:15:22] (Collier 2018b). During this period a lot of the aforementioned factors are reflected: musical and technological virtuosity, recording multiple tracks at a fast pace, and long-term planning by combining reversed audios with spoken, sung, and blabbed words to create a rich texture and colourful rising effect. A few moments later he expresses that the cacophonous juxtaposition of these elements is not random - it is connected to the sentence in the lyrics: “I want to know who did the masterplan”, and Collier explains that the intention behind these layers is to portray multiple contenders behind the creation of this masterplan.

Despite of the long livestream, Collier works in a systematic and structured way, with a clear outline of what the overarching plan is going to be for this arrangement. Table 1 illustrates a summarized timeline of the entire livestream.

Sections	Transition	First Section	Second Section	Final revisions
Mood	Sweeping Rise	Pastoral Waltz	Frenzy Funk	Groovy
# of tracks	~49	~129	~237	~245
Timecode	00:00:00 - 00:23:00	01:08:00	01:58:00	03:12:17

Table 1. Timeline of Collier’s livestream.

4. LAYERS OF DISCOURSE

Whether it is a livestream or a video that has been published to their channel, the key principle is that the artists are in constant communication with their audience. However, there are certain advantages and disadvantages depending on the medium and approach. A livestream has the benefit of including more participatory elements and extended exposure to the composer's creative dynamics. On the other hand, the editing aspect of a fixed video makes the content more accessible and digestible for a broader audience. In both forms there are several layers of discourse, which collectively create an environment in which the viewers can immerse themselves. The following are the categories identified when comparing both artists' videos.

|VISUAL INTERFACE

An important factor of Huang's brand is the editing style of his videos. Most commentators praise his aesthetic decisions, and this high-quality production is a combination of professional cameras, tracking shots, time-lapses, coloured LED lights, and various other cinematographic elements. This presentation packages the video as a high-quality product, making it more memorable.

On the other hand, the streaming setup of Collier's video consists of 4 different camera shots: a main one showing the Logic Pro X window where the tracks are laid out; a wide shot of himself and his room at the top right corner where he addresses the audience; an overhead shot that shows both the keyboard MIDI interface and his computer keyboard; and the streaming software window, basically a mirror of the streamed scene itself. This covers virtually every possible visual channel to maximize the connection with the viewers. The audience can see his space, his keyboard shortcuts and speed of workflow, the pitches he inputs, and what he is seeing on his screen. In addition, Streamlabs, the platform that Collier uses for donations and subscriptions, shows a notification on screen - a small animation of Collier cheering - whenever a new user subscribes or donates to him, enticing others to do so. This multi-dimensional interface allows the viewer to be fully immersed in Collier's world.

|EDUCATIONAL/TECHNICAL

YouTube is an excellent platform for educational content, and Huang uses his channel to teach his viewers about gear, composition, tricks, or generally any musical advice that he can share from his experience. Although Collier mainly uses his channel to post his music videos, he also explains concepts or tools used during his workflow during livestreams, whether technical terms of audio production or explaining certain effects he has discovered over the years.

In the case of Huang's video (Huang 2018a), he walks the viewers through the specific techniques used for this excerpt of music:

- Editing: trimming down audios to use only the portion of the sound that is usable [01:09].
- Pitch Shifting: making the sound higher or lower, in two categories:
 - Melodies: using sounds with a defined pitch and shifting them around to create a melodic line [02:13].
 - Pitch Modulation: includes automation, or a moving parameter giving it continuous movement [02:51].
- Equalization: Increasing or decreasing a specific region of the frequency spectrum [03:13].

- Layering: Combining elements with similar timbres to create a larger sound [04:25].
- Other combinations of these techniques.

In Collier's video, he describes several audio techniques throughout the stream: how he uses panning to spread the sound [00:10:45]; how to create a sweep effect with his mouth and tremolo effect [00:18:12]; how the latch automation works [01:54:57]; or how to stretch an audio file using specific macros and shortcuts [00:22:08], among others.

HARDWARE & SOFTWARE

In order to examine the behaviour of the audience, a brief analysis of the comments is necessary. The comments left on both videos were read one by one and grouped into three overarching categories after recurring characteristics emerged between both versions. The three categories are *Praise*, *Observations*, and *Music Related*. After labelling the comments it is fair to assume a large proportion of these audiences are music gear enthusiasts, keenly interested in the tools that both Huang and Collier use, since gear and sound libraries are among the most common topics of discussion in the video. This category includes discussions about both hardware - microphones, computer, audio interface, etc. - and software - Digital Audio Workstation, sample libraries, plugins and effects, etc. A reasonable assumption for this interest is the sense of identity and relatability that these artists inspire in the viewers who may want to follow their steps.

Huang is famous for using modular synthesizers, and although he does not use one in this video, he adds a full list of his gear to every video's description, including audio and camera gear. In terms of software he constantly recommends Ableton Live, and during the video he mentions several distortion plugins and other effects used with this program.

Collier mentions different products he uses during several moments, usually accompanied by a short review. In this video he mentions his recently acquired microphones [00:06:54], his recent purchase of Trilian, a bass module [00:09:24], the Crystallizer plugin by soundtoys which adds reverse effects and textures [02:43:30], and the use of Altiverb [00:10:14], a reverb plugin that simulates the acoustic qualities of real spaces, among others.

METHODOLOGY

Huang describes the methodology for this drop (Huang 2018b) in three stages: he begins with a sample collection, in this case facilitated by his twitter followers. He then edits each sample and make them as musical as possible. The final stage is the production of the drop and all the aesthetic decisions involved.

In Collier's case, near the beginning of the video he announces that this arrangement will be groove-based, because the video contains more rhythmic potential than harmonic potential. When he records himself singing individual notes within a chord, he does not require the use of notated music or any other aid. He follows a quick strategy of recording on one track at a time, moving quickly from one to the next one until the chord is fully recorded. Sometimes he will record a specific pitch more than once to give it extra weight, voicing the chord like a pianist would. During the stream he constantly alternates between recording different instruments, keeping virtual instruments to a minimum. The real instruments he used were: bowed double bass, electric bass, piano, electric guitar, glockenspiel, drum set, acoustic guitar, bouzouki, several bells,

tambourine, claps, melodica, djembe, and his voice. The only virtual ones he used were pizzicato strings, Celtic harp, and three audio samples - bubbles, an avalanche, and glass breaking. Despite his fast pace, he allows himself some time to make his intentions clear, sometimes verbalizing his ideas and others simply humming the desired musical gesture. By the end of the video, Collier has accumulated over 240 tracks of audio.

|CREATIVITY

This category encompasses discussions of philosophical aspects of each artist's creative process. In Huang's video his creativity is displayed as a finalized product. While he does show the strategies for the final product, he does not show the procedure. In his video the result itself is the creative aspect, whereas in Collier's case the creativity is witnessed as a process. Collier also likes to share his experience in relatable metaphors. During his livestream (Collier 2018b) he says things like "the best way to learn is by trying stuff out" [01:10:00] or points out the difference between a "bubble thing" and a "bubble-flavoured thing" [00:23:42] when he adds certain textures to colour larger-scale gestures. Quite frequently he emphasizes the value of one's individuality with quotes like "Be yourself, everybody else is taken" [01:19:04], and at a point even acknowledges when something finally achieves the "Jacob Collier" sound [02:56:33]. He shares many pieces of advice so often that it is common to find commenters who refer other viewers to the timecode of their favourite quotes as can be seen in this comment: "1:52:10 unexpected life lesson. You are smart on so many levels Jacob" (poeven 2019).

|PERSONALITY

Huang has been regularly uploading videos to his channel since 2006 and his personal brand has solidified through the years, alongside a unique visual editing style to his videos. He is also rather active in Twitter and Instagram, allowing his followers to have multiple vantage points to his personality. Nevertheless, it is worth noting that Youtubers are known for heavily curating and editing their videos to fit a manufactured self that resonates with the viewers (Parkin 2018; Saul 2016).

One unique aspect of the livestream format is the access to Collier's raw personality. His mannerisms are constantly in the spotlight, and traits of his character are manifested in his humour and distinct British accent, features that are brought up frequently in the comments: "The way this guy talks is so posh" (ANIMALxBTKx 2018). Some notable moments during the livestream are when he shares his philosophy about love and human interaction and not letting it be compressed or rushed [01:52:30], when he does something quirky to acknowledge people subscribing and tipping [00:24:03], or when he emulates a hyperbolic reaction from his viewers when playing an unorthodox chord progression [01:27:01]. Collier was wearing a dinosaur onesie during the stream which by itself says a lot about his demeanour.

|MUSICAL

Since Huang takes a more educational angle to his video, most of the specifically musical aspects were discussed above as techniques. However, he does mention other musical factors such as the fact that he uses three additional sounds for the mix - a kick drum and two different snare drums - or how the context for this drop is within the framework of a techno song.

On the other hand, Collier is known for his dense theoretical knowledge and incorporating it into his music. He gained a lot of popularity with several YouTube interviews about music theory,

earning him a large following of theory enthusiasts, particularly in the jazz community (Lee 2017a; 2017b). Naturally, he does mention some theoretical concepts and techniques during the stream: he talks about Steve Reich and uses one of his minimalism techniques [00:45:32]; he explains the difference between just intonation and equal temperament by showing two instruments with a similar timbre but tuned respectively [02:37:15]; and he explains the “tintinnabuli” concept as bells ringing [02:38:27].

CONVERSATIONAL

This connection to the viewers is an informal type of discourse, merely to address certain questions from the chat or to provide observations on any given topic. Although this layer is not present in Huang’s video, there is a lot of activity happening “behind the scenes” in his Twitter feed or Instagram page. Twitter and Instagram are the main platforms where he corresponds with his community, whether to get ideas for new videos or to request random sound effects.

In Collier’s case, he communicates in real time with his audience and requests their input during the livestream. Some examples of Collier’s interactions are: when he gets reminded by his viewers that he has not saved the project yet after accumulating over 200 tracks [01:08:44]; when he realizes that the viewers are sharing their ages in the chat he participates and adds his own age as well [01:09:11]; or when he asks the viewers in the chat which chord progression they prefer and waits for their response to record the most popular choice [01:27:33].

These conversational aspects extend to discussions within viewers in the comments, sometimes discussing certain elements of the stream, or talking about unrelated topics. These exchanges are important because they break the hierarchical dimensions typically ascribed to the dynamics between artists and fans. It preserves the human feel despite it being a virtual connection.

5. CONCLUSIONS

The interactions between composer and audience have never been as rich and honest as they can be with the internet. Also unprecedented is the ability to connect with millions of people from the comfort of your home. Online platforms for video sharing are becoming critical tools that can strengthen both the creative process of composers and the appreciation of the audience.

While there is research into audience participation for music performances, there is a clear distinction between audiences being involved as performers during a live setting or as creative sources during the creative process. The online interactions facilitate a creative symbiotic environment where the artist receives instant input and a sense of community, unlike the usual solitude of the compositional process, and the listeners achieve a unique level of intimacy with the creator and a sense of belonging in the final product. Their feedback is not simply used as an inspiration for the creator but as an active ingredient.

By exploring the eight layers of discourse presented, researchers can paint a broader image of the online dynamics between the composer and the audience. These layers can inform relationships not typically found through other mediums. This valuable data could dramatically improve the interpretation of digital interactions and should not be neglected.

Andrew Huang and Jacob Collier are two musicians that embrace video platforms as a new kind of stage to showcase their work and connect directly with their listeners and viewers. These two artists have different but equally valid approaches to engaging and collaborating with their viewers. In this ever-evolving music-making landscape, their methods are worthy of analysis and consideration for other creators to connect in deeper ways with their audience.

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