Moving the Show Online: An Analysis of DIY Virtual Venues

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According to Katie Green, music venues (as both physical and cultural spaces) contribute heavily to the formation of individual and communal identities within popular music. In the wake of the COVID-19 pandemic, however, the inability to safely gather has temporarily shuttered virtually all music venues. In response, artists and promoters swiftly organized live streaming events as a way for musicians to perform remotely. According to James Rendell, these "portal shows" have provided an opportunity for professional artists to continue connecting with fans and generating income while mirroring the experience of attending in-person concerts for audience members. Yet Rendell's focus does not represent the entirety of musical cultures. For example, the ideological investment in materially enacting community shared by most within do-it-yourself (DIY) music, here referring to the loosely organized and international network of nonprofessional musicians dedicated to performing and distributing music outside of traditional production networks (Makagon; Oakes), may produce a different understanding of live streaming and its role in musical communities. This leads Rendell to call on scholars to examine how "other types of artists, bands, genres and scenes may illuminate other portal show qualities, opportunities and/or shortcomings" to further understand how live streaming operates within popular musical cultures (15).

In response, I use this paper to address the following research question: how do DIY music promoters conceptualize the role of live streaming in DIY music scenes? To do so, I interviewed seven different organizers of virtual venues, or defined virtual spaces where artists routinely stream live and pre-recorded musical performances, to better understand why they organized these spaces and what they

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hoped to achieve through their efforts. Through this analysis, I argue that virtual venue organizers largely view live streaming as a cultural stopgap (albeit one that will continue to influence music communities beyond the current pandemic). While the participants reaffirmed the importance of music venues and in-person concerts, the organizers also recognized that virtual venues greatly increased the accessibility of music and expanded the boundaries of cultural production within DIY music itself. The organizers in this study therefore build on the tenets of both DIY and popular music, including the value of physical intimacy and the egalitarian approach to politics and ethics within DIY communities (Makagon; Woods, "Ethics and Practices")

Live Streaming Concerts in the Wake of the Pandemic

Although live streamed concerts have existed for several years (see Trainer), the use of live streaming as a viable performance outlet has become significantly more important during the COVID-19 pandemic. In large part, this shift in importance has occurred because of most musicians' previous unwillingness to perform via live streaming because of the assumed lack of authenticity or sense of "liveness" that comes with performers and audiences cohabitating a physical space (Thomas). But these assumptions do not come from nowhere. According to Ioannis Tsioulakis and Elina Hytönen-Ng, the physical embodiment of music that occurs during live performances directly contributes to the formation of music genres and the importance of live music within popular culture. In a live streaming context, that physicality disappears as artists can only interact with audiences through a screen despite musicians still playing "live." In-person shows also allow for audience members to physically perform their identities as fans. This occurs through physical gestures (clapping, holding up lighters, etc.), dancing, and singing along to the music (Duffett; Knopke; Willis). Beyond these individual performances, "the feelings of collectivity" shared by artists and audiences often vanish in the shift to live streaming (Vandenberg et al. 5150). Live music as an influential component of popular culture, one that contributes to the formation of popular music genres and both collective and individual identities, therefore emerges from this multifaceted sense of physicality.

In the face of the COVID-19 pandemic, however, the option to attend concerts in person suddenly disappeared and the physicality of live concerts vanished along with it. But rather than abandon live performance entirely, musicians turned to live

streaming to continue making music with and for each other (Onderdijk et al.). For professional musicians, this became a necessity since an increasingly large percentage of musicians rely on touring as a source of income (Zendel). In making this shift, Femke Vandenberg et al. found that artists and audiences used the shared experience of engaging in the live stream to build collective identities without physical cohabitation. Additionally, Rendell's analysis of portal shows reveals that musicians, designers and videographers recreate some of the physical affordances of music venues: the traditional spatialization of venues and the ability to converse with both audience members and artists exist within various features of digital streaming contexts (e.g.,, the chat feature of popular programs like Twitch). In doing so, live streaming may not completely replicate the experience of attending an in-person show, but it provides one avenue for maintaining musical communities, participatory identities, and cultural production amid social distancing.

Beyond this maintenance, most participation within live streaming concert settings does not result in the development of new forms of musical or cultural participation (despite the fact that digital mediation provides that opportunity) (Rautiainen-Keskustalo and Raudaskoski; Vandenberg et al.). Instead, participation in portal shows often leads to the attempted recreation of "established, pre-COVID-19 ritual activities, deriving from past physical experiences and verbally translated to the online environment" (Vandenberg et al. 5149). The sudden emergence of virtual iterations of established physical venues provides one example (see Canham; Long; Owens). While services like Twitch and YouTube provide musicians with the technology needed to stream their own performances whenever or however they want, many have continued to rely on the cultural model of music venues. Artists continue to perform under the banner of these virtual spaces and within the context of live streaming concerts, complete with a designated promoter/organizer who curates a lineup of other bands to play at the same place and time. How participants within popular music cultures interact with these portal shows and virtual venues, however, has not been fully explored. While scholars have conducted some research into live streaming concerts, Rendell and Vandenberg et al. both acknowledge that this specific line of inquiry often remains tied to specific musical traditions or genres (much like research into music venues themselves) and future research should continue to expand into different musical contexts. With this in mind, I now turn towards DIY music scenes to further explore one more site of research.

Ideology and Physicality in DIY Music

Defined by Kevin Wehr as simply "when ordinary people build or repair the things in their daily lives without the aid of experts," DIY represents a broad approach to cultural production that encompasses everything from home renovations and technology design to literary publishing and crafting (1). Within the context of music, various genres and their associated communities have embraced DIY production throughout the 20th and 21st centuries, with skiffle music and the beatniks providing two early and well documented examples (Oakes; Spencer; Triggs). Yet these distinct music communities often conceptualize DIY in different ways. The rise of punk music in the late 1960s and early 1970s, for instance, infused DIY music production with a political ideology of "resistance" (to capitalism, authority, mainstream music culture, etc.) that extends into the contemporary DIY music scene (Blush; Spencer; Triggs; Verbuč). Although many scholars have positioned DIY music in opposition to popular music because of this ideology, others have shown that DIY music cultures often emerge from and within popular music contexts. According to Jones, DIY music's "rituals and forms originate from within mainstream popular culture, and… DIY remains enthralled by music industries phenomena even as it attempts to bypass or reconfigure them" (60). Conversely, the growing musical and visual aesthetic influence of DIY music on popular culture over the past three decades reveals an intertwined relationship between these two contexts (Bestley; Oakes). While DIY represents a specific way of engaging popular music forms, it still remains part of popular culture.

Returning to the cultural politics of the punk movement, DIY music in the wake of this influential moment has historically aligned the self-sufficiency of DIY more broadly with an egalitarian sense of communalism (Blush; Reynolds). According to Shannon Perry, a DIY ethos insists "that participants become active, in whatever way possible, in challenging dominant social structures and enacting positive change in their local communities" (77-8). The DIY ethos therefore stretches beyond making music for oneself to reimagine music making and distribution outside of dominant economic models. Instead, music becomes a means towards building supportive, accessible, and self-sustaining communities (Perry; Woods, "Ethics and Practices"). This ethos then shapes the scene: rather than forming around a particular genre, DIY music (as a globally dispersed community) grows from a shared set of ideologies related to cultural production. DIY music's

expansion beyond punk into an incredibly diverse set of musical forms during the 90s (including indie, dance music, hip hop, etc.) exemplifies this shift (Blush; Makagon; Oakes; Reynolds). Yet multiple DIY music scenes have always existed parallel to (and, at times, intertwined with) each other. For instance, the music scenes surrounding the experimental music subgenres of noise and industrial formed within the exact same channels as punk, hardcore, and post-punk (Bailey; Taylor). Rather than one single lineage, DIY music then exists as a convergence of popular musical traditions that embody a specific approach to cultural production.

To make this ideology a reality, practitioners within DIY music scenes rely on physical spaces (and specifically music venues) as a tool for building community and developing musical knowledges and traditions (Grazian; Tucker; Woods *Learning In*). To this end, DIY music mirrors the reliance on physical space for community development described by Tsioulakis and Hytönen-Ng. According to Daniel Makagon, most DIY venues fit into three broad categories: house venues, volunteer run spaces, and temporary spaces that only exist as venues for specific and limited amounts of time (e.g.,, a record store or skatepark hosting a show outside of their usual business hours or a spot underneath a bridge with a generator in tow). Across all categories, DIY venues embody the egalitarian politics and ethos of DIY music: the push toward a communal economic model (beyond profit driven motives) and the creative use of available resources to "make it happen" represent driving values for many DIY music venue organizers (Woods, "Ethics and Practices").

The production of a DIY ethic then stretches beyond the organizing efforts of individuals and emerges through the material nature of DIY venues themselves. For instance, Makagon and David Verbuč argue that the lack of a stage or backstage area within most DIY venues helps produce a sense of intimacy shared between artists, audiences, and venue organizers that serves as a crucial foundation for DIY communities and creative production. By allowing audiences to exist on the same level (both physically and metaphorically) as artists, those attending DIY shows can interact with the artists and learn about making music or other aspects of DIY cultural production (Woods *Learning In*). This architectural feature then produces the material conditions needed for the "anyone can do it" mindset that historically has driven DIY culture (Blush; Reynolds; Spencer). This cannot occur if barriers prevent audiences from transitioning between viewer and producer. The intimacy generated through the physicality of DIY venues, in part, allows that to happen and further contributes to the ideological foundation of contemporary DIY music. Both

the maintenance of DIY music communities and the ability to develop identities in response to these popular music contexts therefore rests, in part, on physical venues and the interactions they house.

Live Streaming in DIY Contexts Amid the COVD-19 Pandemic

Because of the importance placed on physical interaction within DIY music, the sudden disappearance of in person shows amid the COVID-19 pandemic could produce a significant impact on DIY music culture (and, by extension, popular music/culture) even if that disappearance proves temporary. If Makagon is correct and space truly does matter, then the lack of space could matter just as much. But rather than completely halt live music entirely, musicians have taken to performing via live streaming. This means that the context surrounding DIY music has changed and "when these contexts change so does the music, the music-making and the music consumption," even if those changes are small (Wall 49). Yet for DIY music and other similar music communities, the importance placed on physicality and physical venues implies a certain level of significance in these changes (see Vandenberg et al.). To understand these changes in practice, though, requires new empirical data from the DIY music participants making these live streaming shows happen. With this in mind, I use this section to present insight from music venue organizers to address the following research question: how do DIY music promoters conceptualize the role of live streaming in DIY music scenes?

Description of Study and Research Methods. To generate data, I recruited seven different individuals who organized what I define here as "virtual venues," or specific and defined online locations (e.g., a specific Twitch channel) that regularly hosted live streaming concerts or portal shows, in response to the pandemic (see Table 1). While the participants in this study streamed different types of performances (e.g., streaming pre-recorded videos, a "single source" video/audio feed of a solo performance or musicians performing in the same space, or a "multi-source" collaboration with geographically separated musicians playing together in real time across a network), they all self-identified as DIY promoters and enacted a DIY ethos when organizing their virtual venue. For example, the funding models implemented by the organizers mirrored those of traditional DIY spaces as described by Steven Blush, Makagon, and Verbuč: most shows were donation based and did not require audiences to pay, those that did charge upfront fees kept

prices as low as possible, and all the money collected went directly to the artists, operational costs of the space, or to various local charities.

Name	Location	Venue Name	Venue Format
Theo Gowans	Leeds, UK	Heinous Whining	Pre-recorded Video
Sam Potrykus	Boston, MA	Dorchester Art Project	Live performance (Single Source)
Jake Rodriguez	Richmond, CA	Principles of Non-Isolation in Audio	Live performance (Multi-Source)
Victoria Shen	San Francisco, CA	Evicshen Twitch channel	Pre-recorded Video Live performance (Single and Multi-Source)
Eli Smith	Milwaukee, WI	Remote Resonance	Live performance (Multi-Source)
Jason Soliday	Chicago, IL	Principles of Non-Isolation in Audio	Live performance (Multi-Source)
Andrew Weathers	Lubbock, TX	Decentralized Sonic Quarantine Network	Pre-recorded Video Live performance (Single Source)

Table 1. Information on Study Participants[1]

Additionally, I focused on virtual venues that primarily booked DIY experimental music, referring to what Gilmore describes as an ideological definition that includes all musical forms that intentionally break from the tenets of Western music (e.g., free jazz, noise music, free-improv, electro-acoustic music). I chose this particular subgenre because the reliance on electronic instrumentation and nontraditional music making practices within experimental music (see Gottschalk) provides an advantage for experimental musicians over other genres in relation to live streaming: capturing and broadcasting sound from a full rock band, for instance, proves much more difficult (and more costly) than streaming the sound generated by a laptop. Because of this, a multitude of experimental music-centric virtual venues that embraced the DIY ethos of making the most of the resources one has (see Wehr) quickly emerged in the wake of the pandemic and produced a readily available population of organizers.

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[1] Due to the unique nature of this population, anonymity could not be guaranteed. All participants therefore agreed to use their real names and identifying information in this study.

I also want to acknowledge my own place within this research population. As a DIY musician and concert/venue organizer myself, I have performed alongside, booked, or performed at venues run by all the participants in this study. As such, I have developed personal relationships with all the participants and consider them to be personal friends of mine. I have even performed or shown work at all but one of the virtual venues included in this study. While this may lead to some researcher bias, this familiarity also opens up an opportunity for participants to speak openly because of my established position within certain DIY music scenes.

To collect data, I conducted a single interview with each participant using a semi-structured interview approach. I modeled these interviews after Seidman's three-interview structure, despite only performing one interview per organizer. I began each interview discussing the interviewee's experience in DIY music and organizing shows or venues before moving on to their experience of and reflections on running their virtual venue. Each interview then ended with the participant reflecting on how live streaming may affect current DIY scenes and DIY scenes after the pandemic. After fully transcribing each interview, I employed an open and iterative approach to both descriptive and thematic coding (Saldaña). This allowed me to produce a conceptualization of live streaming within DIY contexts shared between virtual venue organizers. Through this analysis, I produced three larger themes related to the participant's conceptualization of virtual venues in relation to DIY music: accessibility, expanding cultural production, and virtual venues as a stopgap. I will discuss each individually within this section.

Increasing Accessibility. When discussing the issue of accessibility, the venue organizers broadly agreed that virtual venues created a much more accessible space for hosting shows. The participants related this accessibility to three sub-populations within DIY music scenes: audiences, artists, and venue/concert organizers. Regarding accessibility for artists, the participants largely focused on geographic barriers that may prevent some individuals from attending in-person shows. Theo Gowans acknowledges this when describing the experience of some of the attendees on his stream: "it was more equalizing in terms of people's physical location not being a factor. We had a few people who lived in the middle of nowhere be like, 'oh, there's never a noise gig anywhere near me that's not in London.' So it was just nice to feel like they were part of a noise gig." Beyond this geographic barrier, the participants in this study also acknowledge that virtual venues increase accessibility for people with different physical or emotional needs. According to Samuel Portykus, "the virtual realm increases accessibility. Maybe people who

can't even leave the house, they might be really psyched about virtual events." Similarly, Jake Rodriguez says, "there's a large percentage of people in the weird music world that have some amount of social anxiety and have a hard time getting themselves out to shows. You can break out of that more easily in the virtual venue because you're just some words on a screen and an icon. And I appreciate that difference." Regardless of the barrier, the participants recognized that virtual venues provide an avenue for participants who might want to attend more traditional shows but cannot, potentially expanding the borders of both local and global DIY scenes.

For artists, live streaming lifts numerous barriers associated with travelling to and performing at physical venues, creating an opportunity for performers who cannot normally go on tour (or even perform outside of their own home at all) to reach a broader audience. Andrew Weathers describes this when he says, "there's a lot of reasons that people don't tour and not everybody wants to. But I think it has been cool to see people who either don't want to or don't have access to touring to be able to present their music beyond what they reach on social media." Even for people who can tour more easily, virtual venues provide an avenue to more regularly connect with geographically separated DIY scenes. According to Jason Soliday,

> most of the folks involved in this stuff are working real jobs of one sort or another. So we're, at most, touring two weeks [each year] and you're going to miss cities. If I go to the East Coast for a tour this year, that means I can't go to the West Coast, just from a logistics standpoint. If we keep these kinds of networks going through virtual shows, to me that's the best use of this technology.

Again, this positions virtual venues as a tool for expanding the borders of DIY music scenes, creating opportunities for more artists to engage in the creative production associated with this community on a larger scale.

Mirroring the accessibility live streaming provides for artists, the participants also found that virtual venues allowed them to pull from a bigger population of artists. For Eli Smith, this level of accessibility shifted his approach to booking performers: "one thing that has been really interesting has been to just think of musicians I really admire who are from out of town and ask them to be on the show. [Usually,] you're really only going to book someone if they hit you up to book a show. Otherwise, out of the blue, you're not going to have them come from wherever." Although it remains possible for people to invite out of town acts to

perform, both physical distance (as noted by Smith) and the financial costs associated with travelling discourage DIY organizers (especially those without financial backing) from doing so. Gowans spoke directly about the latter when discussing his motivations for starting his virtual venue: "there was no financial element. Especially for my bank account, that was very good, not losing however much a month. I'm not going to pay for Junko [a Japanese artist] to fly over for a gig, but if she'll send an audio file, I won't say no. Financially, it feels like a level playing field." According to participants, live streaming created opportunities for more individuals to get involved in DIY music as artists, audience members, and organizers by lowering the barriers to this popular music culture.

    Expanding Cultural Production. Outside of expanding who gets to participate, the organizers asserted that live streaming expands the cultural production of DIY music scenes as well. Specifically, live streaming allows performers to explore new techniques and artistic media while also providing new avenues for audience interaction. For Victoria Shen, the shift to portal shows created the opportunity to reconceptualize her musical practice:

> my performances are pretty short, like fifteen minutes. I wanted to do something really long form and challenge myself, so I did an hour long electro-acoustic set. It honestly just never occurred to me to have this kind of format live. [And] when you do something more long form, you have to come up with extended techniques that I would have never explored, given the pressure of playing a live set.

Here, Shen acknowledges that the shift to virtual contexts alleviated the pressure and time constraints associated with performing in-person concerts, which led to an expanded artistic practice. Similarly, Jason Soliday's experience improvising with other geographically separated musicians in real time also produced a new set of musical techniques:

> When you're improvising in the same room with someone else, there are other senses involved besides your hearing. Out of the corner of my eye, I can see you moving differently, and I go, "something's going to change. I should be ready to change too." That goes out the window when you're playing to a screen. You lose those cues and you've got to focus on listening. You anticipate differently.

Because of the shifted format of multi-source live streaming performances, one in which the performers cannot always see each other as they improvise together in

real time, a new set of musical skills (what Soliday describes as "anticipating differently," for example) take shape.

This shift in cultural production also involves incorporating other art forms into DIY music communities. Unsurprisingly, the interviewees mainly focused on incorporating film or video into musical contexts. Sam Potrykus states this succinctly when he says, "that's one silver lining: there will be more interest and more action towards getting better video quality and video art out there." Gowans provides an example of this shift when describing a performance by another artist that he streamed: "he did a set where he attached a GoPro next to his bike wheel [while] he was cycling around. So there was the sound of the spokes going chk-chk-chk and this strange visual of him careening around the streets. That was brilliant but of course isn't something that would work live at all." Again, the performance techniques of DIY musicians open up through the practice of live streaming: turning a moving bike into a musical instrument would not work as a live musical performance. Yet, within a live streaming context, this film can exist alongside other more traditional DIY music performances as the cultural production of DIY music grows.

Not only does live streaming expand the methods of cultural production for artists, but this technology also produces opportunities for audiences to both engage in and contribute to that production as well. For Shen, the shift in audience engagement aligned with her choice to stream extended performances via Twitch: "This is a really interesting way to converge those two media because game streams last for hours at a time and then you can just come in and out as you please. It's not so book ended. So that's where the long form sets came from." Not only does the artist shift their practice in this example but the audience does as well. Rather than watching a performance from beginning to end, the expectation for audience members changes and viewers can come and go without disrupting the performance. Furthermore, the affordance of chat features in streaming services also provides a more active avenue for audiences to contribute to DIY cultural production. For example, Rodriguez describes a new practice that emerged in his venue: "Recently, the audiences developed this thing that they're doing where they like to give a title to a particular portion of the live set. So they'll timestamp it and then give a title to that particular piece of music. That's a pretty neat development that you would only get in this sort of virtual venue where people are chatting in real time." In titling portions of the improvised sets broadcast on this stream, the audience contributes to the experience by engaging in the active process of meaning

making that occurs within artistic performances. However, the expectation that audiences should silently listen to musicians stifles the ability for this practice to occur at in-person events.

Cultural Stopgap. Despite these benefits, the participants in this study largely framed the shift towards virtual venues as a stopgap put in place to maintain DIY music scenes through the pandemic. According to Smith, "in terms of actually still putting on shows, these events have been pretty crucial and doing a lot to sustain these scenes and enable them to have any sort of momentum at all. Even though there is something elemental missing from the virtual programing, it still seems like it's been really vital toward sustaining people." Expanding on this response, Rodriguez contends that one aspect of that missing elemental piece is sound itself: "I absolutely miss the physical space. I miss the physical feeling of the sound waves of a loud show. I can reproduce that with speakers that I have here, but I know not everybody is getting the same experience that I'm getting." Alternately, Weathers describes this missing piece as a diminished ability to build connections with other DIY music participants: "I like hanging out. I like talking to people at the show. I like being able to give tapes to people and even just, post-show, go grab a burger or whatever. That is as much a part of touring as playing the show is for me. And obviously that's not really possible. [Live streaming] doesn't satisfy that itch." To this end, the organizers largely agreed that the benefits of live streaming did not necessarily involve building the community itself but instead allowed the community to continue until in-person concerts could resume. For Potrykus, this means that live streaming in DIY communities will end when it is safe to attend concerts again: "It's important to keep it going, but ultimately I'm waiting for us to be able to congregate again. I don't have any particular wish one way or the other. I just think the virtual venue will not continue once we're able to congregate again, for better or worse."

However, multiple participants also saw the value in continuing to organize virtual venues alongside in-person DIY spaces. According to Soliday, the benefits of building community beyond geographic barriers holds its own specific and intrinsic value:

> The community thing is important. I think it's evolving in different ways, in parallel to real world community. There's a bunch of English improvisers who really embraced this live streaming thing and had really active scenes beforehand. And all of a sudden, I felt like a part of their scene, even though

    [we've] never met in real life. That community is important, building those
    connections. So, I think that'll still be there when this is over.

Rather than live streaming replacing in-person concerts or vice versa, Soliday imagines a future in which both approaches to performing co-exist and benefit each other as different types of communities form in parallel. Taking a different perspective, some of the interviewees also conceived of hybrid spaces that combined in-person and live streaming events. For Weathers, this simply means that "more people will be interested in having a real show or an in-person show and also streaming it" at the same time. For Shen, however, this hybrid space opens an avenue for new types of collaboration: "I think people are going to be projecting Zoom calls, even at in-person shows. I think there will be remote collaborations live. And if I don't see it happening, I'm going to do it." If Shen does implement this idea, this would bring the practice of remote collaborations developed by the organizers in this study into physical venues, revealing a potential influence of live streaming on DIY music scenes once the pandemic ends.

Expanding on DIY Music Practices through Livestreaming

Placing these findings in conversation with extant literature, the participants in this study reaffirmed the importance of physical space within DIY music culture and popular music more broadly. Across the interviews, the organizers in this study acknowledged the value of physical intimacy, sound (as a physical object), and the ability to "do" community that all emerge as affordances of the materiality of music venues (Makagon; Verbuč). Conceiving of live streaming as a stopgap during the pandemic also reveals an investment in the types of community that emerge through in-person concerts and events described by Tsioulakis and Hytönen-Ng. Yet the findings in this study also reveal the value that engaging virtual contexts holds for DIY music scenes as well. By creating avenues for participants to engage novel forms of cultural production (both as artists and as audience members), virtual venues provide an opportunity for participants to build on the kinds of knowledge that define music communities, DIY or otherwise. Importantly, this sits in contrast to Vandenberg et al.'s contention that live streaming largely replicated existing rituals of popular music culture. Although that did occur to a certain degree, the organizers also made concerted efforts to reimagine what DIY music could be in a live streaming context.

Rather than contradict the importance of materiality or physicality within popular music, however, the participants' acknowledgement of the new opportunities provided by virtual venues reaffirms that importance. If, to use Makagon's phrase, space matters, then it would matter just as much if that space suddenly expanded to include a virtual context. Rather than recreate the spatialization of venues, as argued by Rendell, virtual venues and portal shows allow artists to reimagine the physicality of music venues. Through live streaming, the walls of the venue can suddenly stretch across oceans (as shown by the use of real time collaborations between geographically separated performers) and become dynamic, moving objects (via newly available performance techniques, such as attaching a camera and microphone to a bicycle). While the participants in this study do not totally abandon traditional venue spatializations, live streaming does provide one tool for reframing the physicality of music venues.

Additionally, the increase in accessibility provided by live streaming produces another tool in helping participants to enact the egalitarian politics that sit at the foundation of DIY music. While different DIY scenes and communities embody sometimes contradicting politics or ethics (Gordon), the drive for accessible and open spaces exists as a foundational aspect of DIY ethics for most participants within these music communities (and DIY venue organizers specifically) (Woods, "Ethics and Practices"). The fact that the participants in this study both recognized and celebrated the ability of live streaming to remove geographic, physical, social, and financial barriers reaffirms the importance of accessibility within DIY contexts. Furthermore, the dedication participants had to organizing their virtual venues or supporting live streaming efforts from others after in-person concerts become safe again further highlights the important role live streaming can play within DIY music's drive to increase accessibility despite the barriers described by Rautiainen-Keskustalo and Raudaskoski. The participants thereby connect current efforts to maintain DIY communities through live streaming to other studies related to the formation of globally dispersed popular music communities (and other popular culture affinity groups) via social media and other internet-based resources (Bennett and Peterson; Knopke). While some authors have argued that DIY music communities already exist and form within digitally mediated environments (see Haworth), these studies have often focused on technologies other than live streaming (e.g., social media sites). The findings from this study therefore contribute to this previous research by asserting the role that live streaming

currently plays in maintaining music communities and could potentially play once in-person concerts safely resume.

Although the participants in this study did discuss the expanded forms of cultural production afforded by livestreaming, the focus on experimental DIY music contexts (as opposed to other DIY music subgenres) does raise a question of generalizability. For instance, a certain tension exists between Jones' contention that DIY music emerges from the cultural practices of popular music and experimental music's conceptual break from Western musical tenets (see Gottschalk). While some alignments still exist, the newly developed musical practices described by participants (such as free improvisation strategies and extended techniques) may not apply to contexts outside of experimental music.

However, Rendell's research into portal shows produced at least two direct alignments with the popular music contexts he studied. First, Rendell described the use of video editing techniques during punk band Code Orange's record release show as a means toward replicating the "kinetic energy that is partially lacking due to there being no crowd and accompanying practices such as moshing, circle pits and slam-dancing" (7). Rendell therefore joins the participants in this study as positioning film and film making techniques as a novel component of cultural production within music performance contexts. Second, the use of emojis (and especially videogame-related emojis) within the chat provided a new way for audiences to respond to the performance. Again, this produces an alignment between the findings in this study and Rendell's analysis by revealing how live streaming contributed to the expansion of the ways that audiences not only engage in all popular music but actively contribute to the meaning behind and experience of live music. Although the particulars of how live streaming expands cultural production within DIY music's various subgenres may differ, the alignments discussed here provide evidence for live streaming's influence on cultural production across both the DIY and popular music landscape as a whole.

Conclusion

While this study responds to both Rendell and Vandenberg et al.'s call to investigate live streaming practices within other popular musical contexts, the findings also amplify that call and reassert the need to explore the current virtual venue and portal show landscape. While I argue here that some aspects of this study do apply to popular music contexts in general, the genre specific forms of cultural

production that emerged when artists and audiences engaged in live streaming DIY experimental music concerts imply that other musical communities and subgenres could develop their own unique and novel ways of making music. Future research can therefore build on this study by examining how musicians and audiences in other musical communities respond and adapt to live streaming contexts. Furthermore, the fact that the interviewees also predicted that live streaming and its influence will continue once in-person concerts resume sounds another call for researchers to investigate this influence, as well as in-person/live streaming hybrid models of live performance, after the pandemic ends. Live streaming holds the potential to continue shaping DIY music scenes beyond the current, digitally mediated moment. Whether DIY organizers abandon live streaming or embrace its potential to increase access and expand the borders of popular music communities, however, remains to be seen.

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