Global Hip Hop Studies Volume 2 Number 2

© 2021 The Author Published by Intellect Ltd. Article. English language. Open Access under the CC BY-NC-ND licence. https://doi.org/10.1386/ghhs 00045 1 Received 4 November 2021; Accepted 2 July 2022

ALEXANDRIA ARRIETA

University of Southern California

Splice and the platformization of hip hop production: Navigating the online music platform for royalty-free samples

ABSTRACT

As a large marketplace of royalty-free samples, the music platform Splice has worked to centralize and open up the process of hip hop production to over 4 million users, varying from beginning bedroom producers to established producers like Turbo (who has worked on tracks for artists including Young Thug, Gunna and Lil Baby). Founded by sound engineer Matt Aimonetti and GroupMe co-founder Steve Martocci in 2013, Splice experienced extreme growth during the COVID-19 pandemic as more aspiring producers took up beat-making from home. Hip hop producers have long used the internet to exchange and sell samples for beat production through direct messaging, sample blogs and sample marketplaces. While these digital exchanges have enabled quicker collaboration and accessibility for producers, they have also set the groundwork for companies like Splice to have an unprecedented influence in musical interactions and activity. Online platforms geared towards hip hop production and beat-making are becoming increasingly critical to the music industry, offering an important opportunity to examine digital creative economies and the platformization of cultural production. Splice

KEYWORDS

music production sampling music technology popular music platform studies beat-making musicians music industry

1. Hip hop packs that were downloaded over 1 million times in 2020 included 'Ouarantine Kit' by Murda Beatz, 'The Drip: Trap & Hip Hop Sauce' by Origin Sound, 'Thicc Drums' by Origin Sound, 'Michelangelo of Melodies Vol. 1' by Pvlace, 'The Family Sample Pack' by Pvlace x Southside and 'OMG RONNY Kit V1' by Ronny J.

incorporates features such as curation and algorithmic recommendation of samples to aid creators in their production process. Through interviews with producers who use Splice and a critical analysis of the platform's user experience, this article demonstrates that producers can feel the need to strike a balance when engaging with the platform, finding ways to use automated tools that make their work more efficient while simultaneously striving to maintain high standards of individual creativity and technical skills. This suggests that it is necessary to have a nuanced understanding of Splice's impact on music production and how it differs from streaming platforms because of its particular logics and functionalities geared towards music creators as a primary userbase.

INTRODUCTION

In March of 2020, producer Murda Beatz created a sample pack for the platform Splice called the Murda Beatz Quarantine Kit, causing a stir amongst online beatmakers excited to be able to use his sounds for their own projects. The Canadian producer, who has worked with artists like Travis Scott, Drake and Migos, started off his career selling beats online to support himself in the early 2010s. In the midst of the COVID-19 pandemic, Murda Beatz decided it would be an opportune time to create his first drum kit and partner with Splice – a platform that allows subscribers to download royalty-free samples - to release it. The kit on Splice is geared to help producers feel busy, productive, and inspired' while isolated at home and contains MIDI loops and drum samples, some of which were used in Travis Scott's 'Butterfly Effect' (Splice 2020a). It was downloaded over 1 million times on the platform (Splice 2020b).

Over 4 million people worldwide use Splice to make music (Tannenbaum 2021), making it the largest beat-making marketplace with double the number of users of its closest competitor, BeatStars (Stassen 2021a). It is important to note what a central role hip hop plays in driving the musical exchanges happening on Splice. The platform offers different types of services for users, but the most popular is Splice Sounds, a royalty-free sample library, which has hundreds of thousands of subscribers who pay a monthly fee of \$9.99 to download samples using a credit system. In 2020, there were twelve sample packs on Splice that were downloaded over 1 million times, and six of those packs were hip hop packs, followed by five EDM packs (Splice 2020b). In addition, the four most downloaded samples in 2020 all came from trap kits. Splice's partnerships with well-known hip hop producers like Murda Beatz and Drake collaborator Boi-1da have driven greater engagement and broken download records on the platform, as users scramble to download new kits made by their favourite music creators (Hissong 2020). In October 2021, Kenny Beats was announced as Splice's first artist in residence.

Drawing from the cultural practices of hip hop production on the internet, Splice and other platforms like it are growing in impact as they become integrated in the daily workflow of millions of producers globally. Splice also implements features that are present in streaming platforms like Spotify, such as algorithmic recommendations (Constine 2019) and curation of content (Splice 2019), and bears resemblance to these platforms in terms of user interface (UI) design (MusicTech 2016). The following sections consider Splice in relation to histories of online beat-making and critical analysis of other online music platforms.

MAKING BEATS ON THE INTERNET

Since the early 2000s, hip hop artists have often worked to push the limits and provide new uses for internet platforms. The 2019 documentary IT'S YOURS: A Story of Hip Hop and the Internet by filmmaker Marguerite de Bourgoing chronicles the early adoption of internet platforms by artists such as Wiz Khalifa, Lil B and members of Odd Future, who recognized the potential of social media sites like Twitter, YouStream and Myspace to facilitate communication with fans and develop close relationships with them through continual posting and live-streaming. At the same time, hip hop artists utilized channels for free, independent music distribution through sites like DatPiff and Soundclick and reposted dance videos of their music on Myspace, setting a precedent for sites that would later streamline this process (Driscoll 2018).

Creative collaborations, partnerships and the search for material are increasingly conducted in digital spaces as well. In an interview for the documentary IT'S YOURS, Wiz Khalifa states: 'Everybody that I ever met in rap history was through the internet [...] it just happened, typing, talking and we in person'. This sentiment is shared by Matt Martians from The Internet (the band), who observes: 'Everybody that I work with, all my close friends, I met on the internet' (de Bourgoing 2019). In an analysis of network evolution amongst music creators who utilize samples, Mason Youngblood found that after the year 2000, geographic proximity did not play as an important role in network formation amongst collaborators and that'the internet has enhanced rather than disrupted existing social interactions' amongst music creators (2019: 7). Because of the frequent use of samples, loops and beats within hip hop production – as opposed to other forms of musical creation, such as bands playing their instruments and tracking their parts together in-person hip hop is particularly suited for the internet's digital nature. The musical units that drive hip hop can easily be shared as files and used for remote forms of collaboration, whether in the form of samples and beats exchanged amongst producers, or beats sent from producers to rappers. These replicable, archivable musical files circulate easily within what danah boyd characterizes as the 'bits-based nature of digital environments' (2011: 40) and can function as what Henry Jenkins, Joshua Green and Sam Ford (2013) characterize as 'spreadable media' that is easily translatable for participation across platforms. According to producer JetsonMade, who often collaborates with other producers who send loops to him in the hopes that he will use them for one of his beats, '[p]eople been collaborating on beats, and that's all I really see a loop as: a more efficient way to collaborate' (Dandridge-Lemco 2020, original emphasis). These accessible modes of sharing and transferability of musical material in hip hop have helped make beat-making in online spaces extremely popular.

A large ecosystem of beatmakers has emerged online to collaborate, hustle, pitch and sell work to rappers (Andrews 2019; Steele et al. 2018), part of a growing body of over 14.6 million digital music creators across the globe (Mulligan 2020). In order to sustain their creative work and income, producers spend a tremendous amount of time online sending their beats to artists for potential placements. For producers who are in the earlier stages of their career, this process includes sending direct messages to large numbers of artists on social media platforms like Instagram, posting their beats on YouTube and utilizing online beat marketplaces like BeatStars, Airbit, Soundee and Soundgine (DJ Pain 1 2021; Kyle Beats 2018). Producers also exchange and sell samples that can be used in beat production through personal websites,

sample blogs and sample marketplaces like Splice, Sounds.com, Loopcloud, Sellfy, Airbit, Modern Producers and ROOSTAR. It is common practice for people to share sounds with one another for free in online forums, such as the Subreddits r/DrumKits and r/SampleHunters (Edney 2021). With the internet serving as a central space for music production and collaboration, producers across international markets are able to enter the space and collaborate with one another (Youngblood 2019; Eze 2020).

There is a growing body of scholarship about the impact of platforms like Splice on music production. Shelvock (2020) provides an extensive overview of how hip hop producers utilize cloud-based production tools like Splice for their work. Approaching Splice from a music production studies lens, Shelvock analyses the varied technological approaches producers implement in working with samples and virtual studio technology (VST) plugins, amongst other tools, from the platform, arguing that 'beat makers have since added a number of new techniques to their repertoire because of advances in digital recording tools and cloud-computing' (2020: 1). He illustrates how varied types of samples, from drums to melodic sounds, are often altered and arranged within hip hop compositions from the perspective of a practitioner. Brett (2021) starts his analysis of presets and sound design in electronic music with an example of how the same Splice sample created by the producer Laxcity was used across songs by Justin Bieber, American singer-songwriter Asher Munroe and Korean hip hop artist YUMDDA. He relates the popular usage of Splice samples to the use of presets within VST synthesizers, which provide a valuable starting point for electronic music producers. There are also scholars within the realm of music education who are focusing on how platforms like Splice are used within songwriting and production courses. Røshol and Sørbø (2020: 159) suggest that it may actually be harder for students to feel as though they are able to attain a high level of originality in their compositions when they use Splice if they do not have a strong enough understanding of how to manipulate samples. Other scholars consider the community and collaboration aspects of Splice's platform in relation to crowd creativity (Calefato et al. 2018) and online collaboration (Martin and Büchert 2021; Hill 2021).

PLATFORMIZATION AND MUSIC PRODUCTION

As more scholars across disciplines study online music production platforms, it is also important to consider Splice in relation to scholarship about how online platforms impact cultural production. Van Dijck et al. describe a platform as 'a programmable architecture designed to organize interactions between users' (2018: 3). In the realm of business scholarship, platforms are seen as 'matchmakers' between 'multi-sided markets' (Evans and Schmalensee 2016). Platforms not only provide a space for interaction but also structure the exchanges that take place according to particular platform logics and systems of classification driven by the interests of stakeholders. Nieborg and Powell argue that the growing influence of platforms has fundamentally altered spaces like the music industry through the process of platformization, 'the penetration of economic, governmental, and infrastructural extensions of digital platforms into the web and app ecosystems, fundamentally affecting the operations of the cultural industries' (2018: 4276). This process of platformization means that tech corporations have a heavy influence through making creative communities increasingly reliant on platforms for sharing their work and on conforming to platform constraints. But, according to Nieborg and Powell in a new article with Brooke Duffy, creators developing content also 'shape platforms just as much as the other way around' (2019: 2). In analysing Splice, therefore, this article will work to explore both how the platform has the potential to implement institutional and curatorial power over music production processes online and the ways in which producers and their creative practices have shaped the platform.

Recent research in the realm of platform studies related to the music industry often focuses on Spotify as a streaming platform (Eriksson et al. 2019; Bonini and Gandini 2019; Prey et al. 2020) and not on platforms created for music production. Prey focuses on how Spotify has to operate as a matchmaker within a multi-sided market in which 'music is marketed to listeners who are, in turn, marketed to advertisers' (2020: 8). The streaming platform also has to take its relationship with labels into account, making labels reliant on their curatorial power while limiting its own reliance on those labels for content (Prey 2020: 8). Within this type of music ecosystem, music creators are heavily affected by algorithmic precarity (Duffy 2020) and are rewarded when they make content according to practices governed by platform optimization. Morris argues that music creators need to 'think and act like software developers, treating their music not just as songs that need to reach listeners, but as an intermingling of sonic content and coded metadata that needs to be prepared and readied for discovery to attain platform visibility (2020: 1). Morris characterizes these practices as 'platform effects', drawing from Mark Katz's (2010) theorization of phonograph effects, the ways that recording technologies influence musical practices and allow for new musical practices to develop, such as turntablism and sampling in hip hop. Platform effects ultimately influence the ways that songs are written and produced for streaming, and according to some cultural critics like Liz Pelly (2018), this has resulted in the development of genres like 'stream-bait' tailored for the attention economy of playlists.

Observations about musicians creating content to be 'platform ready' (Helmond 2015) are certainly applicable to Splice and how the producers who make sample packs for the platform need to create samples according to specific stylistic and formatting guidelines in order to be successful. However, what is often missing from this growing body of research at the intersection of popular music and platform studies is an understanding of how platforms are not simply sites for music distribution; they are increasingly becoming sites where music creation occurs. In one particular example of an analysis of UI design in music apps, Simon (2020) suggests that music production applications in the iOS app store are often geared towards instant success and musical proficiency. She argues that '[n]ormative conceptions of human perfectibility and codes of hegemonic masculinity in which musical mastery and control over an instrument is of central importance [...] are assumed to generate an optimal and "fun" user experience' (2020: 62). Simon argues that this emphasis on success relates to a cultural preoccupation with music as a product and eliminates alternative experiences of exploration and fun that embrace failure as part of the process.

Considering that much of the work regarding the platformization of music-making examines the ways in which social media and streaming platforms can exploit and constrain musical activity, how do we begin to think about the impact of Splice on hip hop production? How does Splice structure interactions between its users? Does the platform guide producers towards

- 2. The participants were given the option to choose their preferred method for the online interview. While eight producers chose to do interviews through video/audio calls. the remaining three opted to be interviewed through direct messages or e-mail.
- 3. I did not recruit producers who were creating content sponsored by Splice in order to avoid a conflict of interest.

particular priorities for music-making or to specific musical outcomes or styles? Through interviews with producers who use Splice and a critical analysis of the platform's user experience, these questions will be examined in the following sections.

METHOD

I conducted semi-structured online² interviews with eleven music producers in the spring of 2022 in order to understand how they use Splice in their dayto-day creative practices and their opinions about Splice's impact on musicmaking at an industrial level. The eleven participants interviewed for this study were diverse in terms of race, gender, age and career status. Participants ranged from 24 to 53 years old and included producers who had only been involved in music production for several years as well as those who have worked in the industry for decades and contributed to chart-topping projects. Five out of the eleven participants characterized themselves as full-time music creators, while the other six were part time. Eight participants identified as male, while two identified as female and one as trans-femme. All the participants used Splice on a regular basis, and though they varied in terms of how they utilized tools on the platform and integrated Splice samples in their work, they largely expressed positive sentiment about Splice and its impact on the music production space. The majority of participants produced hip hop, primarily trap and lo-fi, and all participants worked in multiple genres. The research methods used in this study were approved by the institutional review board of the University of Southern California. Pseudonyms were assigned to all participants.

Participants were from different locations throughout the United States and were recruited using a variety of methods. I reached out to music production communities online, producers who posted content related to how they use Splice on social media,³ instructors and students within music production courses, connections within my own community of music producers and also incorporated snowball sampling in order to recruit participants. Most interviews lasted approximately 30 minutes and were coded and analysed using thematic analysis. The goal of the interviews was to explore the potential uses and approaches for how to use the platform, particularly in relation to the concept of the platformization of beat-making. The perspectives of these producers also offer an important point of contrast to the ways that Splice is advertised – some key features of the platform were heavily used by the participants and others were not. In the following sections, I will summarize the participants' observations about how they integrate Splice into their process for making beats. The interviews provided important insights about how producers navigate the platform to search for samples, how they integrate the platform and its AI-assisted tools into their workflow and how Splice has impacted music-making processes at an industrial level.

FINDINGS AND ANALYSIS

Searching for samples

When Splice was released to the public in 2014, the primary goal was to enable cloud-based music collaboration so that producers could easily back up and share projects from their digital audio workstations (DAWs) (Constine 2014). It was geared to function as a social networking site for music producers, in which they could follow each other and collaborate on projects by releasing their project files publicly. This functionality still exists on the site under the Studio and Community sections, but it is only utilized by a small portion of Splice users. The most popular aspect of the platform is the Sounds section, launched in 2015, where subscribers can download royalty-free samples to use for production.

Splice Sounds is organized much like a streaming platform, with a UI designed for ease of searchability so that producers can find samples quickly. Looking through carefully organized sample packs on the Browse page is one way to find inspiration, but users can also use the search bar on top and stipulate what kind of sample they want according to various characteristics like beats per minute, instrument and key in order to narrow down their options. Users can also choose whether they are looking for loops or one-shots. Loops consist of short musical sections (usually four bars), while one-shots are short musical elements (such as the sound of a kick drum) that last only a couple of seconds. The Browse page offers sections like Recommended for You, Top Packs and Top Labels, as well as other topics such as Top Trap & Hip-Hop Sounds, Artist Packs and Special Collections. Most of the sample packs that are highlighted on the Browse page within Splice Sounds are either created by external sample labels (companies comprised of groups of producers and sound designers with the primary goal of sample creation) or are exclusive sample packs that producers have created for Splice. Some are created by Splice's in-house producers as well. The Sounds section does not prioritize social interaction between users, and there is no ability to follow the sample labels or artists who create the packs on the platform itself. It operates very similarly to a platform like Spotify, in which the home page presents a selection of recommendations that are framed through the guise of personalization but are actually more of a composite of what Spotify wants to promote on the platform and user tastes (Prev 2020). It is important to note that unlike other beat-making platforms like BeatStars, Splice does not display statistics in any aspect of their Sounds section, and there is no public disclosure of how many times a given sample has been downloaded or liked. This is likely due to the fact that producers pride themselves on finding unique sounds, so the knowledge that hundreds of thousands of other producers have also downloaded a given sound is not necessarily appealing. The only measurement of popularity that is disclosed is through overall rankings of packs and labels and through the Daily Picks section that highlights the trending sounds of the day.

All of the participants in this study used Splice Sounds, and a few also used Plugins, a feature that was launched in 2017 that allows users to rent VST plugins such as popular synthesizers and effects plugins. None of the participants used Splice's Studio or Community features, though one participant said he tried the Studio feature and it did not work for him. It was clear that for the participants in this study, Splice was not their preferred avenue for collaborating or networking with other musicians online, and it instead predominantly functioned as a place for them to find the sounds and VSTs that they need.

Each participant had different practices when it came to navigating Splice for the purposes of finding samples. Most participants mentioned that they are reliant on Splice's search features for finding the sounds they are looking for and that they appreciated being able to use both keywords and specifications such as genre, BPM, key and instrument. Several participants shared the importance of searching for sounds that are listed under different genres than the genres that they are producing in. One 25-year-old producer named Angelo observed:

I'd like to just go through a lot of different genres. I try not to stick to just one genre. Even though I usually make a lot of R&B and hip-hop tracks, I tend not to look for that, though, when I'm going through my samples and stuff. I kind of like a lot of jazz samples or even like a lot of dance samples. You can really flip a lot of really cool things. It's a pretty cool program.

Angelo went on to describe how his process for finding samples on Splice actually feels similar to crate-digging. Although he is a young producer who grew up learning many of his skills online, he said that his habits of searching for samples on the platform feel reminiscent of longer lineages of hip hop. Splice gives users the option to organize search results and samples within a particular pack according to different ordering preferences: Relevant, Popular, Recent and Random. Angelo explained that after inputting searches according to instrument and key, he prefers to use the 'Random' setting for ordering the results, and that he works to avoid using samples that other people are using:

I usually just change it to random and I'll just sit there and listen. I'll sit there and listen and once I hear something, I'm like 'oh I'm going to make a song with that'. That's usually how it goes [...] I grew up doing a lot of hip hop growing up. It's just kind of that style of looking for samples, kind of reminded me of like digging through crates or vinyl or something. You just go around, hear what you like, and you're like boom that's what I'm going for.

Another participant, Holly, had a different approach when it comes to navigating searches. She said that she finds herself searching cross-genre, but she often uses certain genre tags in order to find samples with particular tonal characteristics:

There are some genres like if I want major I'm probably going to hit up pop and things like that first. If I want something a little bit more jazzier, I might go to R&B, so sometimes I'll use the genre search because I'm looking for a specific scale-based tonality rather than necessarily the genre itself. Otherwise, it's just by instrument, you know. I'll look up a particular instrument and then I'll look up by their loops or one-shots or whatever it is.

Several of the participants observed that although they appreciate the search tools within Splice Sounds, they have noticed that sometimes the results will not be what they are looking for and that they get results that are in the wrong keys or that are the wrong type of sample (e.g. loops instead of one-shots). One participant, Adrian, described this as a problem with Splice's search engine optimization (SEO). In several cases, participants used language from other online platforms in order to explain how they worked with Splice, such as describing the metadata accompanying each sample as 'hashtags'. Adrian similarly compared the Splice Sound Browse page (Figure 1) to other platforms that offer algorithmically generated, personalized content recommendations for users:

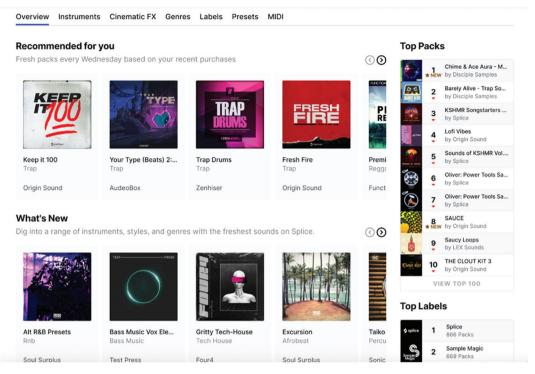


Figure 1: My Splice Sounds Browse page from May 2021.

That's also one of the fun things about it, is that it kind of just gives you an explorer page. Imagine you're on Spotify and you're just looking for new music or you're on Netflix and you're looking for a new show. Splice has that feature to where it's like recommended packs for you [...]. Sometimes, I'll just be sitting 10 to 15 minutes just going through samples, and like 'Oh, I like that', and then I pick it out and I wasn't even planning on using it.

While most participants mentioned that Splice Sounds' search features are integral to their process of finding samples, participants were less likely to mention the algorithmically recommended packs on the Browse page as being particularly important to them. One participant, Miles, said that he avoids the recommended packs altogether. Although he appreciates certain packs, particularly Splice's Sunday Supply packs, he says that he notices that a lot of them are repetitive and that he sees pack creators reuse sounds from other packs, alter them slightly and then repackage them. Most of the participants also made a distinction between general browsing and making specific searches. Participants said sometimes they open up Splice Sounds with the purpose of saving sounds that they can use in the future, in which case they would browse through recommended packs. Other times, they are looking for something very specific and will primarily use the search functionality of Splice Sounds. It is evident that participants engage with sounds curated by Splice and algorithmically recommended on the Browse page but also feel the

need to navigate the platform through very specific searches that rely on their own technical and stylistic preferences for finding sounds.

PRODUCTION WORKFLOW AND AI-DRIVEN TOOLS

In interviews with Splice executives, such as its co-founder Steve Martocci, and in videos created by the company to advertise its features, the idea of keeping producers'in their flow' is often emphasized as a central logic of the platform. This concept of 'flow' relates to having control over one's environment, having the skillset to implement tasks and entering an ecstatic, uninterrupted state of creativity and productivity (Csikszentmihalyi 2014). I asked each participant to talk about their typical workflow for making beats and where that process intersects with using Splice as a platform. Several of the participants suggested that Splice offers a particularly helpful starting point for them when they are dealing with 'beat block', struggling to generate new ideas or lacking inspiration. Though some of the participants are also instrumentalists and will often develop chordal or melodic ideas on the piano, synths or guitar before turning to Splice for drum samples or effects (FX) samples, many turn to Splice's melodic or percussion loops at the beginning of their process. Having access to loops to sift through can also be particularly helpful for sessions with clients, according to Miles:

When I'm working with clients or something, like artists if I'm producing for them, that's always a really good starting point, because oftentimes they don't know what they're looking for. So I'll go through Splice so they'll be like, 'oh yeah like that', and then we could just pick that and work from there.

Miles believes that using Splice enables him to have greater creativity because he is able to spend less time searching for the right drum sounds or chord progressions. This was the case for many participants who expressed that using Splice generally helps them to work more quickly because they spend much less time looking for the sounds that they need. Several of the participants said that working with Splice is similar to having a collaborator, like having a 'band to work with' or a 'second producer in the room'. Harkening back to the JetsonMade's quote about his usage of loops as a form of collaboration, platforms like Splice are 'redefining the notion of jamming in the current digital music production scene' (Shelvock 2019: 19, original emphasis) and creating opportunities for producers to think about collaboration in new ways.

All of the producers I interviewed were comfortable using drum samples from Splice, but a portion of the participants expressed the need to use great care when incorporating Splice's longer melodic loops in their compositions, particularly if they were interested in pitching their music for synchronization opportunities within film, television or video games. Almost every participant who was interviewed emphasized the importance of never simply placing a sample within an arrangement without altering it. Across the board, each participant had particular approaches and techniques for altering samples and making them their own. Chopping, reversing, modulating and changing the tempo were often mentioned. Several of the participants said that they like using Ableton's Simpler tool to chop their samples and convert them into playable MIDI instruments. One participant, Luis, is a 27-year-old producer who works on trap and R&B, is signed to a publishing company and has had songs in which he has used Splice samples get placed on TV and in games. For him, using Splice samples within songs for sync has not been an issue because he has made sure to alter the samples significantly when he uses them. He said that this skillset is vital within beatmaking in general:

It's all about how you apply your resources when you're making that beat, like you know, modulate it in any way to make it sound different. Then I guess that is where the true creativeness of being a producer comes from, is that you can take a generic sound from a platform like that and turn it into something that makes it sound like you've never even pulled it from there.

Splice also offers tools driven by AI to assist users in the sample selection process. Some participants were positive or at least open to the idea of using AI-driven tools to assist how they find and select samples, while others expressed hesitation about using them. In addition to organizing samples according to manually added metadata, Splice uses AI to classify and recommend samples for producers using the platform. In 2019, Splice announced that they had begun using AI in order to recommend similar samples to users 'based on their pitch, melody, rhythm, and harmonic profile' (Constine 2019). They boasted that this new feature, called Similar Sounds, had resulted in a double-digit increase in the amount of downloads that occurs after users run searches on the platform (Constine 2019). On the podcast This Week in Startups from August 2021, Martocci described the feature as 'ML [machine learning] trained on the audio signal itself' (Calacanis 2021). If a producer finds a sample that is close to what they want, but is not quite right, they can click the 'Similar Sounds' icon in order to browse through a selection of samples recommended by AI that are close in terms of characteristics like timbre and harmonics.

Martocci also described how the company was developing technology to help aid the songwriting process by finding compatible sounds in the library to help 'build out a track' for producers (Calacanis 2021), taking the role of AI to a new level of influence. In the spring of 2022, Splice introduced CoSo, an application that uses AI to recommend stacks of complimentary Splice sounds, set in the same tempo and key. Users can specify genre, tempo and instrument and test different potential sounds that the app recommends. In the introductory video for the product, Nick Chen, Splice product specialist, said: 'Every stack of sounds gives you a place to start and puts you in your creative flow' (Splice 2022).

The participants in this study had varied opinions about the benefits of AI-assisted sample selection tools. Three of the producers interviewed shared that they often use the Similar Sounds feature and appreciate the recommendations, especially as an alternative to general Search results, which can sometimes recommend samples from incorrect categories. Other participants did not realize that Similar Sounds was a feature within Splice, or thought that the results from Similar Sounds were not helpful to their process. At the time of the interviews, Splice had just released CoSo, and as a result, the participants offered their initial impressions and concerns about using a tool that automatically recommends complementary samples.

Some participants suggested that AI-driven tools for sample selection have the potential to limit some of the fun and exploration of the beat-making process. One participant, 25-year-old Elijah, observed that an overreliance on

tools like CoSo might actually undermine the collaborative aspects of working with samples:

The whole point is for you to collaborate, so chop it up, have fun with it, change the key, you know, explore, maybe play something over it yourself. So I'm not opposed to the AI, but I feel like it makes music just kind of systematic, you know what I mean, instead of like fun [...] I guess it depends on who you are. If you're really trying to knock out a bunch of beats and just get it done, 'Like I need to add 20 beats, 15 beats to send out', I mean hey, go for it. But I don't personally find joy in that.

Matt suggested that he likes the idea of algorithmic recommendations for complementary sounds, particularly if the recommendations are based on sonic characteristics and can help to ensure that sounds are occupying different sonic frequency ranges within a track. Much like earlier observations from other participants about the need for quickness and ease in sound selection, Matt observed:

I'm all about whatever makes it quicker, because when you're searching for a sound for an hour, 20 minutes, or even five minutes, if you're really focused on it, you're losing your creative ideas, you know. I mean you're getting a little more in the math and then you come back and like 'What was that bassline?' So sometimes that can eat away with the writing, which I think is always a little more important.

Other participants saw tools like Similar Sounds and CoSo as reflective of an increased influence of AI within music production and composition. Twentyeight-year-old Jake expressed excitement about seeing the music landscape change as AI tools become more readily available and suggested that we will be hearing more AI-driven music in the future. However, he was hesitant to use AI-driven tools for sample selection because to him, it feels like 'cheating'. This reluctance about using potential shortcuts echoes one of the core purposes of crate-digging traditions in hip hop, which is 'paying dues' (Schloss 2004: 93). In regard to how they integrate Splice into their beat-making practices, the participants often value tools that serve as starting points for creativity and appreciate particular affordances of Splice that enable them to pursue creative ideas more freely without having to get bogged down in searching for particular sounds. However, the hesitancy of some participants regarding AI-driven tools that assist in building out tracks demonstrates that for some producers, a high level of automation may actually impede on aspects of their creative flow that they value, such as the 'fun' and exploration of figuring out how to layer sounds themselves.

ACCESSIBILITY AND IMPACT

In addition to asking the participants about how they work with Splice in their day-to-day creative practices, I also asked them to reflect on whether the platform has had an impact on the music industry at a broader level. The most common response was that Splice has made production tools, including both samples and VSTs, much more accessible to producers. Some participants suggested that their own lives as music-makers had changed significantly since they started using Splice Sounds, because prior to using the platform, they relied on sharing packs with other producers by swapping hard drives as well as purchasing expensive individual packs and sound libraries from various sample labels and music software companies. While some of the younger producers who were interviewed said that Splice has been a part of their process since they first started learning how to produce, other older participants were able to pinpoint a transition period after Splice's rise in popularity. Matt, who is a 53-year-old producer active in the industry for decades and having worked on chart-topping projects, observed that Splice had increased the quality of projects because of greater access to sounds:

People were spending huge money on Cymatics and other libraries, Zenhiser, and all of a sudden, everybody's stuff started sounding really good because you were spending, you know, a dollar, ten dollars, whatever, to have access to some really good sounds, and you could find them, audition them, and only grab the ones that you knew you would use. I mean, I was blown away and I love that part of it. It's like having access to every sound in the world without having to buy this gigantic library to keep on your hard drive all the time.

Matt also observed that he sees both highly experienced industry veterans and younger producers using Splice, though the approach varies depending on a producer's level of experience. He noted that for younger producers in particular, having high-quality sounds that are already somewhat mixed is extremely helpful in terms of getting excited about the production process at an early stage. Many of the participants said that anytime someone asks them how to get into production, they direct them to Splice as a starting point. One of the participants, Jake, said that he has seen friends get engaged in beat-making for the first time with the help of Splice:

I've had friends who have never made a beat in their life, and they're like, 'hey check out this'. It's just Splice samples, all layered together. It's like a drum loop, a melody, you know what I mean.

While this new level of ease and access to music production tools has opened up the process to new aspiring producers, some participants suggested that it has also raised the standards for one's work to stand out. However, according to Adrian, this is more reflective of the music production space as a whole, and not simply about the influence of Splice:

This is just a whole thing in general about music production, where because it is so easily accessible these days to produce music, the floor or the bar for entry has been made lower. But that also means that the bar to stand out has become higher. I don't have an issue with it. You'll hear a bunch of, you know, garbage beats, whatever, made from people using Splice, but they won't stand out and they won't get as many listens I guess.

Another participant, Miles, who has been using Splice Sounds since its launch in 2015, said that at first he was concerned that Splice was going to 'level the playing field' because suddenly everyone had access to high-quality sounds, but then he realized that Splice was simply a 'tool', amongst other production tools, to incorporate in his work.

As more producers have access to the same sounds, the participants said that they often are able to recognize Splice samples on projects from major artists as well as on television and in ads. In some cases, the participants said that they were using a loop from Splice on a particular project but had to change it out when their client noticed that the loop was being used prominently in a single from a major artist. Despite the fact that Splice samples are royalty-free, this occurrence creates particular issues for producers because it appears that they have copied the major artist who used the loop first, and for that reason, they feel the need to make adjustments. Related to this, the participants also had varying opinions and concerns about being able to use Splice samples within songs that they were pitching for synchronization opportunities for film, TV, games and ads. Despite the techniques available to them to alter melodic loops, some participants I interviewed shared that they limit their usage of melodic loops from Splice because they fear it could limit their opportunities for sync use.

CONCLUSION

Splice operates with platform logics that differ from other digital platforms related to music, particularly in regard to harnessing users' attention. Though streaming platforms like Spotify benefit from the extended time that users spend on their platforms because of the opportunity to collect more user data that can be valuable to advertisers (Drott 2018; Pelly 2019), Splice needs to serve as a tool that producers can engage with quickly in the midst of their production process. If aiding production 'flow' and providing starting points for creativity are the emphasis, then Splice maintains its value and its subscribers by working to create features that can actually help producers get off the platform and back in their DAW more quickly. However, the producers who participated in this study also maintained a high level of awareness that sometimes efficiency and automation are not always beneficial to their creative process. The methods mentioned by participants that circumvent Splice's curation features and algorithmic recommendations suggest that they truly value feelings of creative control and individualism when selecting their samples. They also often harbour hesitancy about features that have the potential to restrain the exploratory fun involved in finding samples, such as AI-driven tools that help to build out beats. In these interviews, the participants demonstrated an understanding that in order to grow as a beat-maker and stand out from the millions of others using the same platform, they need to approach the sounds and tools offered on Splice with substantial nuance and skill. In order to be considered valuable to this group of producers, platform logics of curation and algorithmic recommendations need to ultimately serve to catalyse individualistic creative activities off the platform. Although Splice bears similarities to Spotify in terms of UI design, this model differs somewhat substantially from streaming platforms in regard to conceptions of visibility, attention and efficiency.

It is important to note that this study was very user-centric and did not focus on the practices of the creators of sample packs on Splice. Research to better understand the guiding principles of how sample creators design and record samples for their packs and the ways in which they optimize their work for platforms like Splice should be undertaken in the future. Splice creates different types of deals with external producers and sample labels, which vary from pack buyouts to producers getting a payment every time a sample from one of their packs is downloaded (Calacanis 2021). Because compensation for artists and songwriters from streaming has become such a significant and controversial issue, highlighted by scholars and cultural critics alike (Hesmondhalgh et al. 2021; Ingham 2020), it is also going to be important for Splice to implement payment transparency and systems of accountability at this early stage.

As the technological processes of music production extend beyond the DAW and become more integrated with online platforms, it is important to have a nuanced understanding of the varied priorities of music producers approaching these platforms, including efficiency, autonomy and creative exploration. When considering platformization in this context, this article has explored how Splice's institutional and curatorial power operates somewhat differently than streaming platforms because of the need to address the particular priorities and activities of music producers. As the music creation sector continues to grow (Stassen 2021b), studies of how these platforms impact cultural production will need to take into account the platform's logics and affordances that emerge when music creators are the primary userbase.

REFERENCES

- Andrews, Joe (2019), 'Selling your original melodic beats online can proffer \$100K a year in your pocket', CNBC, 17 August, https://www.cnbc. com/2019/08/17/music-producers-making-100k-a-year-selling-theirmelodic-beats-online.html. Accessed 17 August 2019.
- Bonini, Tiziano and Gandini, Alessandro (2019), "First week is editorial, second week is algorithmic": Platform gatekeepers and the platformization of music curation', Social Media + Society, 5:4, pp. 1–11.
- de Bourgoing, Marguerite (2019), IT'S YOURS: A Story of Hip-Hop and the Internet, USA: LA STEREO.TV.
- boyd, danah (2011), 'Social network sites as networked publics: Affordances, dynamics, and implications', in Z. Papacharissi (ed.), Networked Self: Identity, Community, and Culture on Social Network Sites, Abingdon: Routledge, pp. 47–66.
- Brett, Thomas (2021), The Creative Electronic Music Producer, 1st ed., New York: CRC Press.
- Calacanis, Jason (2021), 'Next unicorns: Splice CEO Steve Martocci, building the Github for music, E1265', YouTube, 13 August, https://www.youtube. com/watch?v=XIMso82_Ql0. Accessed 13 August 2021.
- Calefato, Fabio, Iaffaldano, Giuseppe, Lanubile, Filippo and Maiorano, Federico (2018), 'Investigating crowd creativity in online music communities', Proceedings of the ACM on Human-Computer Interaction, 6:EICS, June, pp. 27:1–21.
- Constine, Josh (2014), 'Music collaboration suite Splice raises \$4.5M from True And DJs, launches public beta', TechCrunch, 17 September, https:// social.techcrunch.com/2014/09/17/splice-music-collaboration/. Accessed 14 September 2014.
- Constine, Josh (2019), 'Splice teaches AI to sell similar sounds as users double', TechCrunch, 21 November, https://techcrunch.com/2019/11/21/splicesample-store/. Accessed 21 November 2019.
- Csikszentmihalyi, Mihaly (2014), Flow and the Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi, Dordrecht: Springer Netherlands.

- Dandridge-Lemco, Ben (2020), 'How loops are changing the sound and business of rap production', Pitchfork, 21 April, https://pitchfork.com/features/ article/how-loops-are-changing-the-sound-and-business-of-rap-production/. Accessed 21 April 2020.
- DJ Pain 1 (2021), 'Sell beats with these tips: Texts, DMs, YouTube and more', YouTube, 28 August, https://www.youtube.com/watch?v=bU-HQt5MFKc. Accessed 28 August 2021.
- Driscoll, Kevin (2018), 'Soulja boy and dance crazes', Spreadable Media, http:// spreadablemedia.org/essays/driscoll/. Accessed 12 December 2018.
- Drott, Eric A. (2018), 'Music as a technology of surveillance', Journal of the Society for American Music, 12:3, pp. 233–67.
- Duffy, Brooke Erin (2020), 'Algorithmic precarity in cultural work', Communication and the Public, 5:3&4, pp. 103–07.
- Duffy, Brooke Erin, Poell, Thomas and Nieborg, David B. (2019), 'Platform practices in the cultural industries: Creativity, labor, and citizenship', Social *Media* + *Society*, 5:4, pp. 1–8.
- Edney, Connor (2021), 'Top 5 best music Reddit forums to improve your music production', Mixxed Blog, 22 July, https://www.mixxed.com/blog/top-5-best-music-reddit-forums/. Accessed 22 July 2021.
- Eriksson, Maria (2019), Spotify Teardown: Inside the Black Box of Streaming Music, Cambridge, MA: MIT Press.
- Evans, David S. and Schmalensee, Richard (2016), Matchmakers: The New Economics of Multisided Platforms, Boston, MA: Harvard Business Review Press.
- Eze, Samson Uchenna (2020), 'Glocalisation of Nigerian contemporary hip hop music', *Journal of the Musical Arts in Africa*, 17:1, pp. 1–18.
- Helmond, Anne (2015), 'The platformization of the web: Making web data platform ready', Social Media + Society, 1:2, pp. 1–11.
- Hesmondhalgh, David, Osborne, Richard, Sun, Hyojung and Barr, Kenny (2021), 'Music creators' earnings in the digital era', Intellectual Property Office, 23 September, https://www.gov.uk/government/publications/ music-creators-earnings-in-the-digital-era. Accessed 3 October 2021.
- Hill, Barry (2021), 'Creative collaboration in the cloud: Using Splice studio and audiomovers to enhance online music education outcomes', Perfect Beat, 21:2, pp. 173-81.
- Hissong, Samantha (2020), 'DIY music creation is on a high. Will quarantine spark a renaissance?', Rolling Stone, 24 April, https://www.rollingstone.com/pro/ features/quarantine-diy-music-rennaissance-988394/. Accessed 24 April 2020.
- Ingham, Tim (2020), 'Spotify dreams of artists making a living. It probably won't come true', Rolling Stone, 3 August, https://www.rollingstone.com/ pro/features/spotify-million-artists-royalties-1038408/. Accessed 3 August 2020.
- Jenkins, Henry, Ford, Sam and Green, Joshua (2013), Spreadable Media: Creating Value and Meaning in a Networked Culture, New York: New York University Press.
- Katz, Mark (2010), Capturing Sound: How Technology Has Changed Music, rev. ed., Berkeley, CA: University of California Press.
- Kyle Beats (2018), 'How I made a living selling beats online in 4 months', YouTube, 15 July, https://www.youtube.com/watch?v=EOA4o0GyQkU. Accessed 14 July 2018.
- Martin, Adam and Büchert, Morten (2021), 'Strategies for facilitating creative music collaboration online', Journal of Music, Technology & Education, 13:2&3, pp. 163–79.

- Morris, Jeremy Wade (2020), 'Music platforms and the optimization of culture', Social Media + Society, 6:3, pp. 1–10.
- Mulligan, Mark (2020), 'Creator tools: The music industry's new top of funnel', MIDiA, 30 November, https://www.midiaresearch.com/blog/creator-toolsthe-music-industrys-new-top-of-funnel. Accessed 30 November 2020.
- MusicTech (2016), 'Splice sounds review', 3 February, https://musictech.com/ reviews/splice-sounds-review/. Accessed 3 February 2016.
- Nieborg, David B. and Poell, Thomas (2018), 'The platformization of cultural production: Theorizing the contingent cultural commodity', New Media & Society, 20:11, pp. 4275–92.
- Pelly, Liz (2018), 'Streambait pop: Liz Pelly', Baffler, 11 December, https://thebaffler.com/latest/streambait-pop-pelly. Accessed 11 December 2018.
- Pelly, Liz (2019), 'Big mood machine: Liz Pelly', Baffler, 10 June, https://thebaffler.com/downstream/big-mood-machine-pelly. Accessed 10 June 2019.
- Prey, Robert (2020), 'Locating power in platformization: Music streaming playlists and curatorial power', Social Media + Society, 6:2, p. 205630512093329.
- Prey, Robert, Valle, Marc Esteve Del and Zwerwer, Leslie (2020), 'Platform pop: Disentangling Spotify's intermediary role in the music industry', *Information, Communication & Society*, 25:1, pp. 74–92.
- Røshol, Andreas Waaler and Sørbø, Eirik (2020), 'Making music, finishing music: An inquiry into the music-making practice of popular electronic music students in the "laptop-era", in Ø. J. Eiksund, E. Angelo and J. Knigge (eds), Music Technology in Education: Channeling and Challenging *Perspectives*, Oslo: Cappelen Damm Akademisk, pp. 151–77.
- Schloss, Joseph Glenn (2004), Making Beats: The Art of Sample-Based Hip-Hop, Middletown, CT: Wesleyan University.
- Shelvock, Matthew T. (2019), 'Socio-technical networks and music production competencies: Towards an actor network theory of hip hop beatmaking', in R. Hepworth-Sawyer, J. Hodgson and M. Marrington (eds), Producing Music, New York: Taylor and Francis, pp. 9–31, https://doi. org/10.4324/9781315212241. Accessed 24 May 2024.
- Shelvock, Matthew T. (2020), Cloud-Based Music Production: Sampling, Synthesis, and Hip-Hop, New York: Routledge.
- Simon, Victoria (2020), 'Guided by delight: Music apps and the politics of user interface design in the iOS platform', Television & New Media, 21:1, pp.
- Splice (2019), 'Introducing the weekly sampler', 18 January, https://splice.com/ blog/introducing-the-weekly-sampler/. Accessed 18 January 2019.
- Splice (2020a), 'Murda Beatz Quarantine Kit', https://splice.com/sounds/ splice/murda-beatz-quarantine-pack?sound_type=sample. Accessed 16 May 2020.
- Splice (2020b), 'Splice Awards 2020', https://awards2020.splice.com. Accessed 20 December 2020.
- Splice (2022), 'CoSo by Splice: Full app walkthrough (IOS/Android)', YouTube, 3 May, https://www.youtube.com/watch?v=6Kbgj0W26Rw. Accessed 2 May 2022.
- Stassen, Murray (2021a), 'Having paid out \$150m to creators, BeatStars launches Sony Music Publishing-backed publishing service', Music Business Worldwide, 22 July, https://www.musicbusinessworldwide.com/havingpaid-out-150m-to-creators-beatstars-launches-sony-music-publishingbacked-publishing-service/. Accessed 27 July 2021.

- Stassen, Murray (2021b), 'Don't sleep on the creator revolution: Bandlab valued at \$303m as it raises \$53m', Music Business Worldwide, 16 December, https://www.musicbusinessworldwide.com/dont-sleep-on-the-creatorrevolution-bandlab-valued-at-303m-as-it-raises-53m12/. Accessed 16 December 2021.
- Steele, Lesley, Morel Jr., Jacques and Leight, Elias (2018), 'How "type beats" have changed hip-hop production', Genius, 9 March, https://genius. com/a/how-type-beats-have-changed-hip-hop-production. Accessed 9 March 2018.
- Tannenbaum, Rob (2021), 'How Splice became the hottest platform on the beat market', Billboard, 22 July, https://www.billboard.com/articles/business/tech/9602227/splice-music-creation-platform-producers-samplesanalysis/. Accessed 27 July 2021.
- van Dijck, José, Poell, Thomas and de Waal, Martijn (2018), The Platform Society: Public Values in a Connective World, New York: Oxford University Press.
- Youngblood, Mason (2019), 'Cultural transmission modes of music sampling traditions remain stable despite delocalization in the digital age', Plos One, 14:2, p. e0211860.

SUGGESTED CITATION

Arrieta, Alexandria (2021), 'Splice and the platformization of hip hop production: Navigating the online music platform for royalty-free samples', Global Hip Hop Studies, 2:2, pp. 219–36, https://doi.org/10.1386/ghhs_00045_1

CONTRIBUTOR DETAILS

Alexandria Arrieta is a doctoral candidate at the USC Annenberg School for Communication and Journalism who studies issues related to popular music, the internet and race. Her research is particularly focused on online platforms geared towards musical creation and the relationship between music and internet memes. She has held fellowships with Warner Music Group and the Latin Recording Academy, and her work has also been published in the Journal of Popular Music Studies. She is an independent music artist and producer.

Contact: University of Southern California, 3502 Watt Way, Los Angeles, CA, 90089-0281, USA.

E-mail: aarrieta@usc.edu

https://orcid.org/0000-0001-8601-8428

Alexandria Arrieta has asserted their right under the Copyright, Designs and Patents Act, 1988, to be identified as the author of this work in the format that was submitted to Intellect Ltd.