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### Rules of Engagement: Copyright and Automated Gatekeepers' Influence on Creative Expression

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# Rules of Engagement: Copyright and Automated Gatekeepers’ Influence on Creative Expression

*Michael W. Carroll\**

I. INTRODUCTION ..... 1137

II. REFRAMING SOCIAL MEDIA—TASTEMAKING PLATFORMS..... 1139

III. CASE IN POINT—TIKTOK AND LIL NAS X..... 1144

A. TikTok..... 1144

1. Musical.ly..... 1144

2. TikTok/Douyin..... 1145

B. Lil Nas X and “Old Town Road” ..... 1148

IV. AUTOMATED GATEKEEPERS – THE DEBATE..... 1150

A. A Difference in Degree or in Kind?..... 1150

B. How Automated Gatekeeping May Evolve..... 1151

C. Some Policy and Doctrinal Impacts ..... 1153

V. CONCLUSION..... 1156

## I. INTRODUCTION

This Essay begins at the intersection of two large public conversations about the growing impact of automated processes in society. One concerns the use of artificial intelligence as a decisionmaking or decision-support tool in areas that include employment, public safety, and public health. This conversation focuses on issues such as algorithmic bias and a range of transparency and governance concerns about the intersection of technology and public policy.<sup>1</sup> The other conversation concerns the role of recommendation algorithms on social media platforms that maximize user engagement at

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<sup>1</sup> See, e.g., generally AUSTRALIAN HUM. RTS. COMM’N ET AL., USING ARTIFICIAL INTELLIGENCE TO MAKE DECISIONS: ADDRESSING THE PROBLEM OF ALGORITHMIC BIAS (2020), [https://www.infogovanz.com/wp-content/uploads/2020/12/ahrc\\_technical\\_paper\\_algorithmic\\_bias\\_2020-1.pdf](https://www.infogovanz.com/wp-content/uploads/2020/12/ahrc_technical_paper_algorithmic_bias_2020-1.pdf) (using a human rights framework to critique uses of artificial intelligence in decision-making).

all costs, including spreading disinformation<sup>2</sup> and negatively impacting adolescent development and mental health.<sup>3</sup> This Essay argues that from a creator's perspective those recommendation algorithms—the rules of engagement—are also decisionmaking tools that significantly influence which creators and which creative works succeed on social media and beyond.

Within the field of intellectual property, the conversation about the role of artificial intelligence has focused on the legal treatment of creative works and inventions produced by automated processes.<sup>4</sup> By bringing the conversations about those on the receiving end of artificial intelligence to bear on intellectual property, this Essay turns the AI-as-author issue around and calls attention to the impact that increasing automation of the media gatekeeping function has on human creators, particularly in the context of social media.

Gatekeepers seek to identify or predict which artists and creative works are likely to succeed. Success in the entertainment industry relies on attracting and maintaining audience attention.<sup>5</sup> Professional creators have long had to work with publishers, editors, producers, studio executives, and other gatekeepers for their works to reach a broad audience. Those self-designated tastemakers have traditionally made a range of predictive decisions about audience tastes and likely market success of new works.

Social media operates differently. In its early stage, social media offered creators basic publishing services but left promotion up to individual creators. Over time, as the advertising-supported business model has become well established, social media actively selects and

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<sup>2</sup> See Karen Kornbluh, *Disinformation, Radicalization, and Algorithmic Amplification: What Steps Can Congress Take?*, JUST SEC. (Feb. 7, 2022), <https://www.justsecurity.org/79995/disinformation-radicalization-and-algorithmic-amplification-what-steps-can-congress-take/>.

<sup>3</sup> See Georgia Wells, Jeff Horwitz & Deepa Seetharaman, *Facebook Knows Instagram Is Toxic for Teen Girls, Company Documents Show*, WALL ST. J. (Sep. 14, 2021, 7:59 AM), <https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739>.

<sup>4</sup> See, e.g., James Grimmelman, *There's No Such Thing as a Computer-Authored Work—And It's a Good Thing, Too*, 39 COLUM. J.L. & ARTS 403 (2016).

<sup>5</sup> See HAROLD L. VOGEL, ENTERTAINMENT INDUSTRY ECONOMICS: A GUIDE FOR FINANCIAL ANALYSIS 48–49 (Cambridge Univ. Press 10th ed. 2020) (describing psychological roots of demand for entertainment); see also *id.* at 53 (“Competition in media is always intense . . . . [T]he most important ingredients for long-run success are scalability . . . , the likelihood that customers will be retained . . . , and the ability to cope with risk and manage failure (of the majority of content items introduced that will never fully recoup the total costs of creation, distribution, and marketing.)”).

2022]

*RULES OF ENGAGEMENT*

1139

promotes creative content based on increasingly sophisticated algorithms designed to maximize end-user engagement and profit.

One might argue that it is unfair to characterize these recommendation algorithms as playing a gatekeeping function because social media services do not deny creators access to their platforms. But, in a world of limited user attention, content that is technically publicly available but that requires extensive user effort to find is, for all intents and purposes, invisible to the public. As a result, only content favored by social media's algorithms is likely to find an audience.

This Essay addresses the question of whether, from a professional creator's perspective, there is a difference in degree or a difference in kind in responding to the demands of a human versus an algorithmic gatekeeper to reach the creator's desired audience.

While the evidence is still evolving, I think the role of algorithmic gatekeeping represents a difference in kind. Software operates according to rules. Most flexibility that exists in the context of human gatekeeping is lost in the context of algorithmic recommendation engines. While the evidence is too thin to prove the point conclusively either way, creators seeking to succeed on social media are making significant adaptations to their creative processes. It is nearly impossible to code for iconoclasts, and the increasing power of algorithmic gatekeeping diminishes the opportunity for future cultural innovation and disruption.

## II. REFRAMING SOCIAL MEDIA—TASTEMAKING PLATFORMS

This Essay addresses the increasing power of social media's use of algorithms to promote content to maximize user engagement. To put this relatively new development in context, it is useful to recall the recent history of social media and its relationship to copyright law.

In the early days of the public internet, the predecessors of today's social media services positioned themselves as mere enablers for content creators. They highlighted for both business and legal liability reasons that they primarily provided storage and other minimal services and that it was their users who decided what, when, and how to publish.

Service providers' framing of their services as relatively passive in relation to their users' expressive activities was an important part of their public policy advocacy during the formation of the Digital

Millennium Copyright Act (“DMCA”).<sup>6</sup> The structure of the DMCA reflects this framing. In particular, the safe harbor most critical to the growth of social media has been 17 U.S.C. § 512(c), which immunizes service providers from copyright liability that arises by reason of “*storage* [of infringing material] at the direction of a user.”<sup>7</sup>

Advocates who seek to amend § 512(c) argue that Congress and the media industry advocates who agreed to support it as part of the overall DCMA legislative package did not foresee social media as it exists in the 2020s.<sup>8</sup> Foreseeability, however, is in the eye of the beholder. Web hosts were not the only eligible service providers active on the internet during the DMCA’s formation.

Services such as Geocities were already well established and well known. Observers of internet history generally credit Geocities as one of the original social media services.<sup>9</sup> While it may be the case that members of Congress and some in the media industry misunderstood the implications for the evolution of social media, Geocities provided users not only with web hosting services for their blogs or websites, but also with design templates and a business model that exchanged free hosting for permission to place advertising on users’ websites.<sup>10</sup> While there certainly is a difference in scale between the user base and range of services Geocities provided compared to the large social media companies in the 2020s, from the perspective of copyright liability, the difference in scale is not necessarily a difference in kind that justifies amending the Copyright Act.

From a business perspective, the goal and role of social media, extending into the initial period of broadband availability in the early 2000s, was to increase the user base at all costs. When Google acquired YouTube in 2006, although some observers expressed skepticism about the transaction because YouTube was unprofitable, many others saw the logic of the transaction because of YouTube’s success in attracting

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<sup>6</sup> See Michael W. Carroll, *Pinterest and Copyright’s Safe Harbors for Internet Providers*, 68 U. MIAMI L. REV. 422, 430–31 (2014) (describing service providers’ advocacy positions).

<sup>7</sup> 17 U.S.C. § 512(c)(1) (emphasis added).

<sup>8</sup> See U.S. COPYRIGHT OFF., SECTION 512 OF TITLE 17: A REPORT OF THE REGISTER OF COPYRIGHTS 2, 27–28 (2020) (characterizing § 512(c) as being intended only to protect web hosts).

<sup>9</sup> See, e.g., Ben J. Edwards, *Remembering GeoCities, the 1990s Precursor to Social Media*, HOW-TO GEEK (Aug. 24, 2021, 1:31 PM), <https://www.howtogeek.com/692445/remembering-geocities-the-1990s-precursor-to-social-media/>.

<sup>10</sup> See *id.*; Jay Hoffmann, *An Ode to Geocities*, HIST. WEB (Jan. 2, 2018), <https://thehistoryoftheweb.com/an-ode-to-geocities/>.

2022]

## RULES OF ENGAGEMENT

1141

attention from both creators and viewers.<sup>11</sup> *Time* magazine named “You” the social media content creator as its 2006 “Person of the Year.”<sup>12</sup> At least with respect to user engagement, the bet appears to have paid off. In 2022, 2.3 billion people visited YouTube per month.”<sup>13</sup>

The second stage of social media development featured the development of increasingly sophisticated advertising support for these purportedly free services.<sup>14</sup> To operate at the growing scale of the large social media services, advertising necessarily became automated. During this phase, social media services introduced rules of engagement to place advertisements next to content with the goal of maximizing the amount of reader or viewer attention given to content and its associated advertisements.

Web publishers and creators of what was then called “user-generated content” had different levels of sophistication about the relationship between their own abilities to attract and maintain an audience and the role of the social media service’s automated rules to maximize user engagement.<sup>15</sup>

Arguably, social media has entered a third stage of maturation in the 2020s, characterized by growing professionalization of influencers and other “content creators” and a new level of sophistication in the rules of engagement designed to channel or manipulate user behavior to maximize profit for the social media service.

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<sup>11</sup> See, e.g., *Google Buys YouTube for \$1.65 Billion*, NBC NEWS (Oct. 9, 2006, 11:54 AM), <https://www.nbcnews.com/id/wbna15196982> (describing the generally favorable reception of the transaction by investors and industry observers).

<sup>12</sup> See *Time Magazine’s Person of the Year Is . . . You*, NBC NEWS (Dec. 16, 2006, 9:34 PM), <https://www.nbcnews.com/id/wbna16242528>; see also Lev Grossman, *You—Yes, You—Are TIME’s Person of the Year*, TIME (Dec. 25, 2006), <http://content.time.com/time/magazine/article/0,9171,1570810,00.html>.

<sup>13</sup> See Mansoor Iqbal, *YouTube Usage and Revenue Statistics (2022)*, BUS. APPS (Jan. 11, 2022), <https://www.businessofapps.com/data/youtube-statistics/>.

<sup>14</sup> The use of the word “purportedly” is advised. As observers of advertising-supported media have long said in so many words, if a service is free, then the customer is the product. See, e.g., *You’re Not the Customer; You’re the Product*, QUOTE INVESTIGATOR (July 16, 2017), <https://quoteinvestigator.com/2017/07/16/product/> (quoting sources ranging from artists Richard Serra and Carlota Fay Schoolman in 1973 to a user named blue\_beetle on MetaFilter in 2010); Karl Hodge, *If It’s Free Online, You Are the Product*, CONVERSATION (Apr. 19, 2018, 5:58 AM), <https://theconversation.com/if-its-free-online-you-are-the-product-95182> (focusing on how the quote captures Facebook’s business model).

<sup>15</sup> See *The Evolution of Social Media: How Did It Begin, and Where Could It Go Next?*, MARYVILLE UNIV., <https://online.maryville.edu/blog/evolution-social-media/> (last visited Mar. 23, 2022).

Social media services now compete intensely to host and publicize the creative output of this mostly young generation of authors.<sup>16</sup> Social media stardom now has a business model, and those who succeed in this pursuit profit substantially from directly and indirectly advertising a range of goods and services. Direct advertising revenue flows from “sponsored content,” in which the creator has received cash or in-kind benefits from a brand or advertiser. Indirect advertising revenues consist primarily of the payments from social media services for a share of the advertising revenues generated by the creator’s content.<sup>17</sup>

Both revenue streams can be substantial. Influencer marketing is economically important enough to merit tailored guidance from the Federal Trade Commission about how the rules of false advertising and false and deceptive trade practices apply to social media influencers.<sup>18</sup> Individual social media posts can earn mid-level influencers between five and six figures.<sup>19</sup> With respect to indirect advertising revenue, one blogger with experience editing for YouTubers’ video blogs, estimates that YouTube, for example, pays a 32/68 percent split of its advertising revenue, which results in about \$2 to \$5 per 1,000 video views through the AdSense advertising channel.<sup>20</sup>

These two sources of revenue generally align the economic interests of the creators and the social media services, although not entirely. The interests appear to be directly aligned with respect to the creator’s revenue split with the social media service, but in the case of sponsored content, the sponsor’s interest in audience attention may be more nuanced than the social media service’s interest in terms of not

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<sup>16</sup> While the top ten TikTok stars in 2021, as measured by followers, are almost all in their teens or 20s, Will Smith (born 1968), is among them. See Laura Sanders, *These Are the 25 Most-Followed TikTok Accounts in 2021*, LADBIBLE (Sept. 17, 2021), <https://www.ladbible.com/community/53021-tiktok-most-followed-accounts-people-20210917>; see also *TikTok Stars*, FAMOUS BIRTHDAYS (providing ages of top TikTok stars in their teens and twenties), <https://www.famousbirthdays.com/profession/tiktok-star.html> (last visited Mar. 23, 2022).

<sup>17</sup> See *infra* notes 15–16.

<sup>18</sup> FED. TRADE COMM’N, DISCLOSURES 101 FOR SOCIAL MEDIA INFLUENCERS (Nov. 2019), [https://www.ftc.gov/system/files/documents/plain-language/1001a-influencer-guide-508\\_1.pdf](https://www.ftc.gov/system/files/documents/plain-language/1001a-influencer-guide-508_1.pdf).

<sup>19</sup> See Chavie Lieber, *How and Why Do Influencers Make So Much Money? The Head of an Influencer Agency Explains*, VOX (Nov. 28, 2018, 6:00 PM), <https://www.vox.com/the-goods/2018/11/28/18116875/influencer-marketing-social-media-engagement-instagram-youtube> (quoting figures between \$10,000 and \$100,000 per post, depending on followings ranging between 10,000 and over 1,000,000, from a social media advertising agent).

<sup>20</sup> Glen Beker, *How Much Does YouTube Pay in 2022? In-Depth Statistics*, VLOGTRIBE, <https://vlogtribe.com/how-much-does-youtube-pay/> (last visited Jan. 8, 2022).

2022]

## RULES OF ENGAGEMENT

1143

only how many people pay attention to the sponsored content, but also which people.

But intensifying public concern about social media's role in promoting disinformation about the 2020 election and COVID-19 focused regulators' and others' attention on how social media's content recommendation algorithms are optimized for profitability, which sometimes leads to promotion of disinformation.<sup>21</sup> How directly these algorithms are responsible for shaping the beliefs and actions of users of social media is an issue with a long history, related to historical debates about the role of advertising in shaping consumer tastes and behavior.<sup>22</sup>

In this Essay, I leave this important debate to one side to focus instead on the behavior-shaping role that social media services' recommendation algorithms—the rules of engagement—have on the new professional class of content creators upon which social media services rely. If the service is free, and the customer is the product, how should we think about the authors of the content attracting and keeping users' attention? In particular, what amount of creative agency do these authors enjoy in relation to the algorithms that connect them to, or potentially divert the attention of, their audiences?

Some evidence suggests that creators first choose the type of content they want to publish and then choose the social media service with the most compatible rules of engagement.<sup>23</sup> Other evidence suggests that creators start with the rules and shape their creative output to maximize the chances of going viral.<sup>24</sup>

In the absence of reliable data across services and creators from which to generalize, I think the relationship between TikTok and Lil Nas X in making "Old Town Road" a hit song helps illustrate the roles that

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<sup>21</sup> See, e.g., Jeff Horwitz, *The Facebook Whistleblower*, Frances Haugen, Says She Wants to Fix the Company, Not Harm It, WALL ST. J. (Oct. 3, 2021, 7:36 PM), <https://www.wsj.com/articles/facebook-whistleblower-frances-haugen-says-she-wants-to-fix-the-company-not-harm-it-11633304122> (quoting a fall 2019 presentation from Facebook's Connections Integrity team that read, "What did we do? We built a giant machine that optimizes for engagement, whether or not it is real").

<sup>22</sup> See Joseph Bernstein, *Bad News: Selling the Story of Disinformation*, HARPER'S MAG. (Sept. 2021), <https://harpers.org/archive/2021/09/bad-news-selling-the-story-of-disinformation/> (arguing that "[t]he myths of the digital-advertising industry have played a defining role in the way the critics of Big Tech tell the story of political persuasion").

<sup>23</sup> See, e.g., Tom May, *The 12 Best Social Media Platforms for Artists and Designers*, CREATIVE BLOQ (Aug. 24, 2021), <https://www.creativebloq.com/features/social-media-for-artists>.

<sup>24</sup> See Shayne, *How to Go Viral on Social Media in 2022: 7 Tips that Actually Work with Examples*, INVIDEO (Feb. 17, 2022), <https://invideo.io/blog/how-to-go-viral/>.

each side plays. TikTok's meteoric rise in popularity was driven significantly by the success of its "For You" recommendation algorithm, and Lil Nas X's clever parlaying of different service's rules of engagement built the viral wave that made "Old Town Road" unstoppable.

### III. CASE IN POINT—TIKTOK AND LIL NAS X

According to reporting in *Rolling Stone*<sup>25</sup> and the *New York Times*' "Diary of a Song" video series,<sup>26</sup> Lil Nas X engaged in savvy cross-platform promotion using services including SoundCloud, iTunes, Twitter, Reddit, and TikTok to promote the success of his breakout hit "Old Town Road." Both sources credit the song's virality on TikTok as its breakout moment.<sup>27</sup> Before describing Lil Nas X's strategy, and his understanding and use of different services' rules of engagement, this Essay first explores the details of TikTok's "For You" recommendation algorithm, which has made the service a significant competitor to Facebook and YouTube in a remarkably short time.

#### A. TikTok

The 2020s version of TikTok is the result of a merger of two Chinese apps: Musical.ly and Douyin. The story of its success is a combination of timely strategic business decisions and significant disregard for privacy interests in users' personal data.

##### 1. Musical.ly

Musical.ly was founded in 2014 as an education app called Cicada, designed to overcome the failure of many users to complete Massive Open Online Courses ("MOOCs") by serving them three- to five-minute videos that explained a topic.<sup>28</sup> Its founders, working with an initial investment of \$250,000, quickly recognized that their idea was going to

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<sup>25</sup> See Elias Leight, *Lil Nas X's 'Old Town Road' Was a Country Hit. Then Country Changed Its Mind*, ROLLING STONE (Mar. 26, 2019), <https://www.rollingstone.com/music/music-features/lil-nas-x-old-town-road-810844/>.

<sup>26</sup> See Joe Coscarelli et al., *'Old Town Road': See How Memes and Controversy Took Lil Nas X to the Top of the Charts*, N.Y. TIMES: DIARY OF A SONG (May 10, 2019), <https://www.nytimes.com/video/arts/music/10000006445156/old-town-road-lil-nas-x-billy-ray-cyrus.html>.

<sup>27</sup> See Leight, *supra* note 25 ("Hooky, short and wildly loopable, 'Old Town Road' took off on the app TikTok . . ."); Coscarelli et al., *supra* note 26, at 3:56.

<sup>28</sup> See Biz Carson, *How a Failed Education Startup Turned into Musical.ly, the Most Popular App You've Probably Never Heard Of*, BUS. INSIDER (May 28, 2016, 9:21 AM), <https://www.businessinsider.com/what-is-musically-2016-5>.

2022]

## RULES OF ENGAGEMENT

1145

fail because the cost of content creation was too large, and the videos were uninteresting to the targeted teenaged demographic.<sup>29</sup>

With only 8 percent of their cash remaining on hand, they rebranded the app Musical.ly and intensified the focus on short-form content. Co-founder Alex Zhu was inspired to create a social network that focused on sharing 15-second videos after observing a group of teenage boys on a train in California, some of whom were listening to music while others were taking and posting selfies.<sup>30</sup>

Cicada had become Musical.ly in 30 days, and it immediately drew an audience. More important, the audience came back for more. According to Zhu, “[y]ou can buy the users, but you can’t buy the user retention.”<sup>31</sup> Part of the app’s retention success was to continue to tweak the design in response to user suggestions. Original videos focused on lip-syncing, but users wanted greater interaction. Musical.ly introduced the Duet feature in which a user could create a side-by-side video with a prior post.<sup>32</sup>

Although popular in China, Musical.ly attracted a substantial teenage audience in the United States. As the app’s name makes clear, music is an important element of most of the content on the app. Instead of relying primarily on the § 512(c) safe harbor to manage copyright liability, the company decided to seek and obtain licensing deals with the large music copyright owners to embed itself in the traditional music industry.<sup>33</sup>

## 2. TikTok/Douyin

Having noticed Musical.ly’s rapid rise, Chinese media giant ByteDance released a competing app, Douyin, in September 2016. The app quickly took off, garnering 100 million account holders within a year and attracting more than one billion video views per day.<sup>34</sup> ByteDance named the international version of the app TikTok, while retaining the Douyin brand and app inside China.

Seeking to break into the teenage market in the United States, ByteDance acquired Musical.ly in November 2017 for an undisclosed

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<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> See Werner Geysler, *The Incredible Rise of TikTok-[TikTok Growth Visualization]*, INFLUENCER MARKETING HUB (Aug. 18, 2021), <https://influencermarketinghub.com/tiktok-growth/>.

<sup>34</sup> See *id.*

sum estimated to be \$1 billion.<sup>35</sup> It then merged Musical.ly into TikTok, and the modern version of the app was born.

TikTok's popularity with creators and users is based in part on a business model that relies on intensive data mining to match users with content. TikTok's "For You" recommendation algorithm is designed to maximize user engagement.<sup>36</sup> TikTok's profiling practices extend beyond monitoring account holders. Whether one has an account or not, the app creates a user profile for each person as soon as they open a video.<sup>37</sup> This algorithm feeds videos to users, and creators are now making their content to appeal to the algorithm rather than appealing to their audiences.<sup>38</sup>

This algorithm is known for collecting large amounts of data from users to determine their likes, their preferences, and what videos will make them stay on the platform longer.<sup>39</sup> TikTok's algorithm looks at the kinds of videos users interact with, how the user interacts with them, details about the videos users are looking at, and account settings like language and location.<sup>40</sup> TikTok's detailed algorithm even analyzes how long you watch a video to determine if you relatively like the content, even if you do not leave a like.<sup>41</sup> Many have come to question TikTok's algorithm for privacy concerns, bringing TikTok under fire by the Trump administration and media outlets.<sup>42</sup>

TikTok's algorithm has raised privacy concerns and many people are worried that the data collected by the algorithm is given to the

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<sup>35</sup> *Id.*

<sup>36</sup> *See id.*; see also Kait Sanchez, *Go Watch this WSJ Investigation of TikTok's Algorithm*, THE VERGE (July 21, 2021, 2:28 PM), <https://www.theverge.com/2021/7/21/22587113/tiktok-algorithm-wsj-investigation-rabbit-hole>.

<sup>37</sup> Riccardo Coluccini, *TikTok Is Watching You - Even If You Don't Have an Account*, VICE (Jan. 21, 2021, 8:59 AM), <https://www.vice.com/en/article/jgqbm/tiktok-data-collection>.

<sup>38</sup> *See* Dmitry Pastukhov, *TikTok for Artists and Music Professionals: How to Use TikTok to Promote Your Music*, SOUNDCHARTS BLOG (June 29, 2020), <https://soundcharts.com/blog/tiktok-guide-for-artists-and-music-professionals> (explaining how artist should aim to make favorable content for the algorithm to go viral).

<sup>39</sup> *See* Christina Newberry, *How the TikTok Algorithm Works in 2021 (and How to Work With It)*, HOOTSUITE (Aug. 23, 2021), <https://blog.hootsuite.com/tiktok-algorithm/>.

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> *See generally* Cathy O'Neil, *TikTok's Algorithm Can't Be Trusted*, YAHOO (Sept. 21, 2020), <https://www.yahoo.com/now/tiktok-algorithm-t-trusted-180004456.html>.

2022]

## RULES OF ENGAGEMENT

1147

Chinese government.<sup>43</sup> Ultimately, studies have found that the data mining conducted by TikTok is as much as the data mining conducted by other social media outlets such as Facebook.<sup>44</sup> Another worry about TikTok's algorithm is the ability that TikTok has to manipulate what users see to promote political rhetoric or propaganda.<sup>45</sup> TikTok has previously been caught accessing the contents of people's "clipboards every few seconds, even when the app was running in the background."<sup>46</sup> Most notably, TikTok has "paid \$5.7 million to the Federal Trade Commission for violations of America's children's privacy law" by Musical.ly.<sup>47</sup> Most commentators would find no issue with labeling TikTok's algorithm as invasive and at times worrisome, but creators and musicians cannot ignore the platform that has been downloaded over two billion times.<sup>48</sup>

The details of how TikTok's algorithm works were revealed in a *Wall Street Journal* investigation<sup>49</sup> and in a leaked internal document obtained by former *New York Times* reporter Ben Smith. That document asserts that the algorithm's four main goals are: (1) user value; (2) long-term user value; (3) creator value; and (4) platform value.<sup>50</sup> According to Smith, "the app is shockingly good at reading your preferences and steering you to one of its many 'sides,' whether you're interested in socialism or Excel tips or sex, conservative politics or a specific celebrity."<sup>51</sup> The algorithm achieves its success in user attraction and retention by mining massive amounts of data and deploying a mathematical model to predict user behavior. The key variables in the model are user engagement through "likes," user comments, and playtime, including data showing actual plays.<sup>52</sup> One computer science

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<sup>43</sup> See *id.*; see also Geoffrey A. Fowler, *Is it Time to Delete TikTok? A Guide to the Rumors and the Real Privacy Risks*, WASH. POST (July 13, 2020), <https://www.washingtonpost.com/technology/2020/07/13/tiktok-privacy/>.

<sup>44</sup> Fowler, *supra* note 43.

<sup>45</sup> O'Neil, *supra* note 42.

<sup>46</sup> See Fowler, *supra* note 43 (stating that app developers at Mysk discovered TikTok accessing contents of people's iPhone clipboards every few seconds).

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> See WSJ Staff, *Inside TikTok's Algorithm: A WSJ Video Investigation*, WALL ST. J. (July 21, 2021), <https://www.wsj.com/articles/tiktok-algorithm-video-investigation-11626877477>.

<sup>50</sup> See Ben Smith, *How TikTok Reads Your Mind*, N.Y. TIMES (Dec. 5, 2021), <https://www.nytimes.com/2021/12/05/business/media/tiktok-algorithm.html>.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* (quoting a greatly simplified version of the math as " $Plike \times Vlike + Pcomment \times Vcomment + Eplaytime \times Vplaytime + Pplay \times Vplay$ ").

expert found nothing especially innovative about the algorithm's design and instead attributes TikTok's competitive edge to "fantastic volumes of data, highly engaged users, and a setting where users are amenable to consuming algorithmically recommended content."<sup>53</sup>

#### B. *Lil Nas X and "Old Town Road"*

The story of Lil Nas X's success with "Old Town Road" is a mashup of cultural and legal currents converging.<sup>54</sup> Born Montero Lamar Hill, Lil Nas X became fascinated with internet memes at age thirteen.<sup>55</sup> Having invested his teenage years in trying to develop an internet personality, Lil Nas X was deeply familiar with the rules of engagement across multiple social media platforms.

An important background fact is that at the time Lil Nas X composed the song, Western dress and related memes had become widely popular across social media,<sup>56</sup> and, in particular, Black Twitter was pursuing The Yeehaw Agenda as a way of reclaiming the role of Black cowboys in American history.<sup>57</sup>

"Old Town Road" begins with a banjo track released by Nine Inch Nails as "34 Ghosts IV".<sup>58</sup> The track struck the ears of a young DJ in the Netherlands, YoungKio, who sampled the track as part of a beat he sold online for \$30.<sup>59</sup> Lil Nas X was captivated by the beat and began composing a tune at the country-trap intersection.<sup>60</sup>

Once "Old Town Road" was composed and recorded, Lil Nas X went to work. In his words, "I knew the way I was going to have to push the

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<sup>53</sup> *Id.* (quoting University of California San Diego Professor Julien McAuley).

<sup>54</sup> See Jason Parham, *Lil Nas X's 'Old Town Road' Already Encapsulates 2019*, WIRED (Apr. 16, 2019, 9:00 AM), <https://www.wired.com/story/lil-nas-x-old-town-road-song-of-2019/>.

<sup>55</sup> See Rodney Carmichael, *Wrangler on His Booty: Lil Nas X on The Making and the Magic of 'Old Town Road'*, NAT'L PUB. RADIO (Apr. 10, 2019, 4:50 PM), <https://www.npr.org/2019/04/10/711167412/wrangler-on-his-booty-lil-nas-x-on-the-making-and-the-magic-of-old-town-road>.

<sup>56</sup> See Brittany Spanos, *Giddy Up! Here's What You Need to Know About the Yeehaw Agenda*, ROLLING STONE (Mar. 8, 2019), <https://www.rollingstone.com/music/music-features/welcome-to-the-yee-yee-club-bitch-805169/>.

<sup>57</sup> See Taylor Crumpton, *A Brief History of the Yeehaw Agenda*, AFROPUNK (Mar. 12, 2019), <https://afropunk.com/2019/03/black-cowboys-yeehaw-agenda/>.

<sup>58</sup> The entire album, GHOSTS I-IV, was released under a Creative Commons Non-Commercial Share-Alike 3.0 license, which permits non-commercial sharing, see, e.g., Internet Archive, GHOSTS I-IV, [https://archive.org/details/nineinchnails\\_ghosts\\_I\\_IV](https://archive.org/details/nineinchnails_ghosts_I_IV), but would require a separate license for incorporation into a commercial release.

<sup>59</sup> See Coscarelli et al., *supra* note 26, at 1:30.

<sup>60</sup> See *id.* at 1:50.

song to get it to hit more people's ears . . . . I run a meme type of account on Twitter; I know what my audience is looking for. So I put some potentially funny lines in there."<sup>61</sup> Other influencers picked up the song and began to share it. Meanwhile, Lil Nas X engaged in cross-platform promotion, such as posting on Reddit to drive user curiosity.<sup>62</sup> When TikTok influencer NiceMichael posted a short video using the song on TikTok, the song quickly went viral. The song's popularity was further helped by *Billboard's* having posted the song to its Country chart in March only to then remove it for not being country enough. Lil Nas X was paired with Billy Ray Cyrus to record a remix in retort, and that version became the longest-running hit on *Billboard's* main Hot 100 chart.

"Old Town Road"'s runaway success was an early signal that TikTok had arrived as a service that could launch new stars. While Lil Nas X did not compose the song with TikTok's specific recommendation algorithm in mind, even on his telling, he designed the song with features that would help it go viral on social media more generally.

TikTok's specific formula for measuring success is influencing the influencers. Some artists using the platform claim to make over tens of thousands of dollars per video.<sup>63</sup> Artists are making and promoting their music using TikTok to create fifteen-second snippets that can be turned into a dance or background noise for videos and the algorithm can push on more people's "For You" page.<sup>64</sup> Artists have even incorporated TikTok videos that use their music as a dance or background as a part of their Spotify Canvas covers or inspiration for their music videos.<sup>65</sup> At times, artists make songs in which they repeat

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<sup>61</sup> Elias Leight, *Lil Nas X's Havoc-Wreaking Meme Is a Hit. He's as Surprised as You Are*, ROLLING STONE (Apr. 3, 2019, 1:00 PM), <https://www.rollingstone.com/music/music-features/lil-nas-x-old-town-road-country-trap-interview-815846/>.

<sup>62</sup> See Coscarelli et al., *supra*, note 26, at 3:07.

<sup>63</sup> Dylan Smith, *Jason Derulo Says He Makes 'Far More' Than \$75,000 Per TikTok Post*, DIGIT. MUSIC NEWS (July 14, 2020), <https://www.digitalmusicnews.com/2020/07/14/jason-derulo-tik-tok/>.

<sup>64</sup> See Pastukhov, *supra* note 38; see also Timothée Colinet, *How To Use Tiktok To Promote Your Music?*, GROOVER BLOG (Apr. 6, 2021), <https://blog.groover.co/en/tips/promote-your-project/how-to-use-tiktok-to-promote-your-music/>.

<sup>65</sup> See Palmer Haasch, *TikTok Creators Are Surprised To See Their Own Videos Displayed Alongside Doja Cat's 'Planet Her' Album on Spotify*, YAHOO!NEWS (Aug. 20, 2021), <https://www.yahoo.com/news/tiktok-creators-surprised-see-own-212229559.html>; see also Andre Paine, *Dua Lipa Launches Levitating Video with TikTok Creators*, MUSICWEEK (Oct. 2, 2020), <https://www.musicweek.com/digital/read/dua-lipa-launches-levitating-video-with-tiktok-creators/081385>.

the chorus several times, but they can find success in large part because of TikTok's algorithm, the creation of dances, and going viral.<sup>66</sup>

#### IV. AUTOMATED GATEKEEPERS – THE DEBATE

##### A. *A Difference in Degree or in Kind?*

The case study above focused on TikTok's particular rules of engagement, but each social media service, particularly YouTube and Meta's Facebook and Instagram applications, also engage in data gathering, data mining, and use of machine learning to lure users to stay engaged with content on each respective service. Those seeking social media success understand this reality and are adapting their creative practices to break through and connect with these services' enormous audiences.<sup>67</sup> For purposes of this Essay, the question that the growth of social media's rules of engagement presents is whether these rules' behavior-shaping influence on the creative process are merely a difference in degree from the influence of traditional media gatekeepers or whether these are different in kind.

The argument in favor of this being merely a difference in degree is that the ultimate goal of the gatekeeper is to predict audience taste and to promote the success of the most profitable forms of creative expression. Human gatekeepers rely on a variety of data sources to inform their decision making, such as past metrics, focus groups, and other inputs. Ultimately, there is a human decisionmaker acting as tastemaker in either case. The difference is whether that person is a studio executive, music producer, or editor, on one hand, or a software engineer, on the other.

On this view, traditional gatekeepers' rules of audience engagement, such as limiting the length of a popular song to three minutes, or not killing off the main character of a television series in the first episode, are merely less sophisticated and nuanced rules from those governing audience access on social media services.

The argument that algorithmic gatekeeping represents a difference in kind focuses on two aspects of this form of decision-making. First,

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<sup>66</sup> See Jacob Moore et al., *Best New Artists*, COMPLEX (July 29, 2021), <https://www.complex.com/pigeons-and-planes/best-new-artists-july-2021/> (stating that \$ilkMoney was able to find viral success on TikTok early on with the song "My Potna Dem").

<sup>67</sup> E.g., Christie Passaris, *TikTok vs. YouTube—Which Is Better for Creators?*, CLIPCHAMP (Nov. 15, 2021), <https://clipchamp.com/en/blog/tiktok-vs-youtube-which-better-creators/> (comparing TikTok and YouTube in terms of watch time, audience, affiliate marketing, ability to incorporate music, captioning, analytics, and live streaming).

traditional gatekeepers are not entirely rule-bound. They can take risks if they judge a particular project to be compelling. The current rules of engagement, and likely those that will govern in the next few decades, are unlikely to have sufficient data to make such calculated risks. In addition, traditional gatekeepers could be played against each other. A memorable scene in *Bohemian Rhapsody* depicts how the band Queen circumvented record executive Ray Davies' refusal to make a seven-minute song the single by putting the song in the hands of a friendly disc jockey who broke the hit.<sup>68</sup> Social media services centralize decision-making in a single algorithm.

Second, as algorithms like TikTok's access ever larger datasets and drill deeper into user data, the algorithm's certainty in its ability to shape creator and user behavior is likely to increase. It is not hard to imagine social media services turning machine learning algorithms loose to conduct A/B testing and other experiments to refine the rules of engagement with no further human engagement. In such a world, the creators seeking success will truly be adapting their creative behavior to satisfy machine-made rules.

While it is early for this particular question, I lean toward thinking that this is a turning point and that automated rules of engagement present a difference in kind. I am loathe to underestimate the growth in computational power and sophistication.

#### B. *How Automated Gatekeeping May Evolve*

Without engaging in hyperbolic dystopian speculation, I do think there are technological capacities already in development that social media platforms could increasingly use to play an increasingly invasive role in the creative process. As Brett Frischmann and Evan Selinger argue, people are being encouraged to delegate their decision-making to computers in a range of settings and are thereby being re-engineered to act increasingly as automatons.<sup>69</sup>

They recognize that as networked technology increasingly is becoming embedded in our lived environments, and even in our bodies, social media will have the capacity to seize an even greater share of

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<sup>68</sup> In a related vein, see Dalson Chen, *Obituary: Windsor Radio Legend Was 'Girl With The Golden Ear'*, CANADA.COM (Nov. 24, 2021), <https://o.canada.com/news/local-news/obituary-windsor-radio-legend-was-girl-with-the-golden-ear> (describing hit-making talent of Ontario radio disc jockey, Rosalie Trombley).

<sup>69</sup> See generally BRETT FRISCHMANN & EVAN SELINGER, *RE-ENGINEERING HUMANITY* (Cambridge Univ. Press 2018) (providing a range of case studies illustrating how humans are offloading decision-making to computers).

human attention.<sup>70</sup> As they relate, technologies already exist that enable a person to delegate some of their locomotive functioning to another.<sup>71</sup> With a more robust form of this technology, one could spend time learning the latest TikTok dance or attach sensors and let TikTok do it for you. If that capacity were to exist, it is not hard to imagine TikTok's algorithm evaluating the key features of popular dance or music videos and manipulating creators' bodies to create new works incorporating these features.

In other contexts, creators in a range of fields already have the ability to delegate certain tasks to algorithmic decision-makers. Consider the case of Apple's GarageBand software. Initially, it provided recording studio capacity along with libraries of pre-recorded drum loops and instrumental tracks. Over time, the drum loop has been augmented or replaced by a drummer track programmed to "play along" in real time.<sup>72</sup> That is still a responsive implementation of creative technology, and it is offered for the purpose of making GarageBand more attractive to users. Imagine if social media platforms were to offer such technology to further enhance the attention-grabbing capacity of social media.

One can imagine more directive technologies that could range from an automated paint-by-numbers approach to more invasive direction of the creative process. As technology can increasingly get inside your head, literally, through a brain-computer interface, it could become difficult to disaggregate the creative contributions of human and algorithm.<sup>73</sup> In such a world, the effectiveness of algorithms like TikTok's "For You" that recommend what to watch could also function to recommend, or direct, what to create.

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<sup>70</sup> See *id.* at 121.

<sup>71</sup> See *id.* at 30–32 (discussing implications of an experiment that allowed a researcher to use a smart phone and signaling sensors to manipulate student pedestrians' muscles as they walked through a park such that they could turn their attention away from their own act of walking).

<sup>72</sup> See Andrew Siemon, *Tips and Tricks for Using the Drummer Track in Garageband*, PRODUCER SOC'Y, <https://producersociety.com/drummer-track-garageband/> (last visited Mar. 23, 2022) ("One of the great things about these drummer tracks is the fact they're not static like loops. They're essentially like artificial intelligence. They adjust themselves according to the music well.").

<sup>73</sup> See Jonathan Baker, Note, *The Advent of Effortless Expression: An Examination of the Copyrightability of BCI-Encoded Brain Signals*, 105 MINN. L. REV. 389, 394–398 (2020) (explaining brain-computer interface systems and arguing that existing technology could be extended "to acquire the brain signals representing creative thought at their neurological origin, digitize them, and store those digitized, machine-readable signals on an external device").

2022]

RULES OF ENGAGEMENT

1153

*C. Some Policy and Doctrinal Impacts*

This Section briefly identifies some legal and policy consequences of the influence of the rules of engagement as they are in 2022 and what they may be in the future. Each of these deserves further scholarly attention.

**Transparency and governmental oversight of algorithmic decision-making.** While the pressure for greater transparency in algorithmic decision-making is mounting in other sectors of the economy, such as in elections and politics, financial regulation, and civil rights, creators who engage with social media's rules of engagement also would benefit from greater transparency, and potentially oversight, of these algorithms. Transparency would help creators and their representatives understand their vulnerability to design changes<sup>74</sup> and detect overt or latent biases,<sup>75</sup> as well as police certain kinds of favoritism, such as payola.

**The Scope of Copyright.** The core attribute of authorship is originality.<sup>76</sup> Originality requires independent creation and a minimal degree of creativity.<sup>77</sup> Creativity, in turn, is generally measured by an author's choice of expression. To the extent that social media's rules of engagement dictate certain expressive choices, the scope of copyright in works created to satisfy these rules diminishes.

The most extreme example of this effect brings up an issue related to Professor Daniel J. Gervais's contribution to this Symposium.<sup>78</sup> In addition to originality, a copyrightable work must also be fixed in a tangible medium "by or under the authority of the author."<sup>79</sup> In a series of authorship disputes, the courts have recognized that the human being who does the actual fixation, a stenographer for example, is not the

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<sup>74</sup> See, e.g., Dara Kerr, *Shadow Bans, Dopamine Hits, and Viral Videos, All in the Life of TikTok Creators*, THE MARKUP (Apr. 22, 2021), <https://themarkup.org/working-for-an-algorithm/2021/04/22/shadow-bans-dopamine-hits-and-viral-videos-all-in-the-life-of-tiktok-creators> (quoting Cornell Professor Brooke Erin Duffy: "What is so incredibly precarious is often the [algorithmic] tweaks that are unannounced. They can wreak havoc on a creator's livelihood").

<sup>75</sup> See *id.* (quoting TikTok blog responding to criticism about a shadow ban on Black creators: "At the height of a raw and painful time, last week a technical glitch made it temporarily appear as if posts uploaded using #BlackLivesMatter and #GeorgeFloyd would receive 0 views").

<sup>76</sup> *Feist Publ'n, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345–46 (1991).

<sup>77</sup> See *id.*

<sup>78</sup> Daniel J. Gervais, *AI Derivatives: The Application to the Derivative Work Right to Literary and Artistic Productions of AI Machines*, 52 SETON HALL L. REV. 1111 (2022).

<sup>79</sup> 17 U.S.C. § 102(a).

author of the work if they are acting in a rote fashion as an amanuensis.<sup>80</sup> But if it is the algorithm that is doing the dictating, then the work has not been fixed under the authority of an “author” because an author for copyright purposes must be a human being.<sup>81</sup>

**Joint works.** Social media generates a number of copyright-related issues concerning collaborative creativity. One is when should collaborators be treated as authors of a joint work? A joint work is “a work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole.”<sup>82</sup> Authors of a joint work co-own the copyright in the work.<sup>83</sup> Courts require that each joint author’s contribution to a joint work must be independently copyrightable.<sup>84</sup> As a result, a human drummer could readily be a joint author of a sound recording but GarageBand’s drummer track cannot be.

Courts also have applied a judicial gloss to the intent standard for joint works, denying joint authorship in cases in which one author is dominant because they retain sole creative control of the final work.<sup>85</sup> Where both parties have contributed independently copyrightable expression but lack the intent to be joint authors, what is the status of the non-dominant author’s contribution if it is inseparable and interdependent on the dominant author’s contribution? The Second Circuit held that the non-dominant author owns no copyright interest in the work, denying a film director rights in his direction when all other contributors to the project had signed work-made-for-hire agreements that gave ownership of the copyrights in their contributions to a single owner.<sup>86</sup> If social media deploys gatekeeping algorithms that contribute most of the copyrightable expression and a human creator’s contributions are inseparable from those, the Second Circuit’s logic would lead to a result in which there is no copyright.

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<sup>80</sup> See, e.g., *Adrien v. S. Ocean City Chamber of Com.*, 927 F.2d 132, 135–36 (3d Cir. 1991); *M.G.B. Homes, Inc. v. Ameron Homes, Inc.*, 903 F.2d 1486, 1493 (11th Cir. 1990) (architectural drawings); *Geshwind v. Garrick*, 734 F. Supp. 644, 650–51 (S.D.N.Y. 1990) (computer animated film).

<sup>81</sup> *Naruto v. Slater*, 888 F.3d 418, 426 (9th Cir. 2018).

<sup>82</sup> 17 U.S.C. § 101.

<sup>83</sup> *Id.* § 201(a).

<sup>84</sup> See *Childress v. Taylor*, 945 F.2d 500, 507 (2d Cir. 1991); *S.O.S., Inc. v. Payday, Inc.*, 886 F.2d 1081, 1087 (9th Cir. 1989).

<sup>85</sup> See *Aalmuhammed v. Lee*, 202 F.3d 1227, 1234–1235 (9th Cir. 2000); *Thomson v. Larson*, 147 F.3d 195, 202 (2d Cir. 1998).

<sup>86</sup> *16 Casa Duse, LLC v. Merkin*, 791 F.3d 247, 256 (2d Cir. 2015).

A separate joint authorship issue may arise in connection with how TikTok's Duet feature evolves. Most current Duets likely comprise two independently-owned copyrightable works because the authors lack the intent to create an inseparable and interdependent whole. But a more prescriptive Duet feature might have such a whole work as a goal when directing creators about their contributions to the Duet. If each contributor simply follows an algorithm's specific directions to create a work that would otherwise qualify as a joint work, courts will have to determine whether the human creators' choice to follow an algorithm's "intent" that their contributions be merged be sufficient to meet the joint work intent standard.

**Fair use.** Fair use has traditionally played an important role in creating flexibility for creators seeking to build upon or use preexisting works. Automating fair use decision-making is notoriously difficult. The Ninth Circuit held that the good faith standard under the DCMA's notice-and-takedown regime requires copyright owners to consider fair use before sending a takedown notice to a social media platform.<sup>87</sup> In its initial opinion, the court held that copyright owners could comply with this standard by relying on automated fair use analysis.<sup>88</sup> The panel amended its opinion to remove discussion of automating fair use decision-making in response to a petition for rehearing en banc.<sup>89</sup> Nonetheless, increasing reliance on algorithmic gatekeeping potentially puts fair use at risk because risk-averse social media services are likely to be overly conservative in promoting works that incorporate preexisting creative works. The evolution of YouTube's Content ID system is a case in point. YouTube's "copyright strike" system, which can lead to deletion of a creator's entire account, penalizes creators who rely on fair use in a way that elicits a DMCA takedown notice.<sup>90</sup> Thus, while the DMCA requires copyright owners to consider fair use before issuing a takedown notice, under the rules of engagement, a social media platform has no such obligation before algorithmically blocking or demonetizing content.

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<sup>87</sup> *Lenz v. Universal Music Grp.*, 815 F.3d 1145, 1154 (9th Cir. 2016).

<sup>88</sup> *See Lenz v. Universal Music Grp.*, 801 F.3d 1126, 1135–1136 (9th Cir. 2015), *amended and superseded by* 815 F.3d 1145 (9th Cir. 2016).

<sup>89</sup> *See Sheri Pan, Lenz v. Universal Music: Ninth Circuit Amends Opinion to Broaden Fair Use Protections in DMCA Takedowns*, JOLT DIGEST (Apr. 4, 2016), <https://jolt.law.harvard.edu/digest/ninth-circuit-amends-opinion-to-broaden-fair-use-protections-in-dmca-takedowns>.

<sup>90</sup> *See Katharine Trendacosta, YouTube's New Copyright Transparency Report Leaves a Lot Out*, ELEC. FRONTIER FOUND. (Dec. 15, 2021), <https://www.eff.org/deeplinks/2021/12/youtubes-new-copyright-transparency-report-leaves-lot-out> (describing creators' fears of challenging Content ID matches).

## V. CONCLUSION

We are still in the early stages of this new era of social media's development. Pressures outside the copyright system have focused increased attention on the role that social media's engagement algorithms have played in elections, politics, financial regulation, and a range of other areas of human activity.

Less attention has been given to the behavior-shaping role that these rules of engagement are playing in the creative choices of a new class of professional creators. This Essay argues that more attention is due to this relationship and expresses concerns about how the rigidity of software-based decision-making is likely to constrain choices of creative expression in the social media context.