Research Perspectives on TikTok and Its Legacy Apps

Introduction

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TikTok, a short-video app featuring video content between 15 and 60 seconds long, has in the last few years become immensely popular around the world. Because of its Chinese ownership and popularity among underage users, however, the platform has attracted criticism and been subject to close scrutiny. Despite these hurdles, TikTok has emerged as a hub for creativity and is being used by educators and governments to reach out to the younger demographic. This Special Section is among the first collections of articles in the growing field of studies on TikTok and its legacy apps. It provides a glimpse of the nascent framings, approaches, methodologies, and applications of TikTok studies in the field of social media scholarship.

Keywords: TikTok, short-video platform, social media, digital culture

As scholars of digital cultures and emerging technologies, we often face a dilemma: We have to mull over which newly emerging platforms, media, and phenomena on which to focus our efforts. Are these mere fads? Passing trends? Short-lived flashes in the pan? Or the beginnings of more profound shifts, turns, and pivots worthy of early pursuit? Encountering TikTok presented exactly such a predicament for us. Since 2018, we closely observed the Chinese technological company ByteDance's launch of TikTok for the global market, following the swift success of its sister app, Douyin, in China. The earliest conversations around TikTok, especially in the English-language and Anglocentric media, obsessively fixated over its Chinese ownership (Kesling & Wells, 2020) and, by extension, concerns over data management and user privacy (Paul, 2019; Tobin, 2020), as well as potential bans (Singh, 2020).

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As the exotica and surprise that accumulated around the "new kid on the block" faded away, media coverage and academic scholarship began to treat TikTok and its legacy apps more thoroughly, interrogating the platform's impact on our sociocultural climate, the digital economy, and legal guidelines around the world. As we enter this phase, we find now to be an opportune moment to reflect on the emergent research perspectives on TikTok, given the sudden proliferation of interest in the platform, no doubt stimulated by its rapid uptake during the period of mass self-isolation during the COVID-19 pandemic.

The Special Section is inspired by a panel we had put together for the 2020 International Communication Association (ICA) conference titled "Short-Form Parallel Universes: Affordances, Activity, and Culture of TikTok and Douyin." In the two-hour session, the editors and some of the contributors of this Special Section offered five articles that explored the parallel platformization of TikTok and Douyin, the ecology and culture of TikTok, and the mediatization and patriotism of Douyin. This panel was an early attempt to bring together some of the emerging scholarship on TikTok and its legacy apps. Following from this ICA panel, we offer this collection of five research articles at a time when the field of TikTok studies is on the cusp of rapid expansion—through scholarship, academic conferences and symposia, research networks—and the time is ripe to reflect on the early beginnings of the field to plan for future directions. In this opening article, we introduce how TikTok came into being, review the fast-developing scholarship around this platform, and provide an overview of the research articles in this collection.

The (Bumpy) Rise of TikTok

The short-video industry took off in China (Yi, 2020) around 2014–2015, in tandem with the country's maturing livestreaming and e-commerce ecologies. When ByteDance launched its short-video platform Douyin in 2016, more than 10 short-video apps were competing in the Chinese market (Tang, 2017). Despite "being late to the party," ByteDance was the first Chinese social media company to achieve global success. In 2017, ByteDance launched TikTok, an international version of its short-video product with an interface almost identical to Douyin's (Kaye, Chen, & Zeng, 2020). In the same year, it acquired Musical.ly. Although headquartered in Shanghai, Musical.ly had gained enormous success among teenagers in the United States and the UK since its launch in 2014. By merging Musical.ly with TikTok in 2018, ByteDance inherited Musical.ly's access to the youth market abroad. It is worth noting that before TikTok, other short-video platforms were popular in Europe and in the United States. Some, like Vine and Dubsmash, were popular among groups of young people, but mostly remained niche, while others failed to take off altogether (such as Facebook's Lasso). However, TikTok succeeded in growing into a mainstream platform that presently rivals major Silicon Valley competitors such as Instagram, Facebook, and YouTube.

What made TikTok successful? Arguably, the company's initial success in the European and U.S. markets was largely attributed to its very early focus on Gen Z. Unlike ByteDance's domestic short-video products, which have a broad user base across all age groups, TikTok specifically targeted teenagers and preteens from the onset. As Musical.ly founder Alex Zhu revealed in an interview, Musical.ly was inspired by and designed with the creative cohorts of Gen Z in mind (Pham, 2016). As mentioned earlier, this focus on the young allowed Musical.ly to swiftly dominate the teen market, a legacy later passed on to TikTok.

¹ Panel information and recording are available at https://wishcrys.com/icattdy/

During the COVID-19 outbreak in 2020, the global lockdowns further catalyzed the massive expansion and diversification of TikTok's user groups. Figure 1 displays the number of TikTok downloads by month and Google's Search Interest Index for "TikTok." As the trends demonstrate, TikTok downloads reached their peak in the early stage of the global crisis. By presenting itself as an important source for lockdown entertainment and learning materials (TikTok, 2020), TikTok managed to attract older populations (such as parents and grandparents) and adults of all occupations (such as teachers and healthcare workers) to the platform during the pandemic.

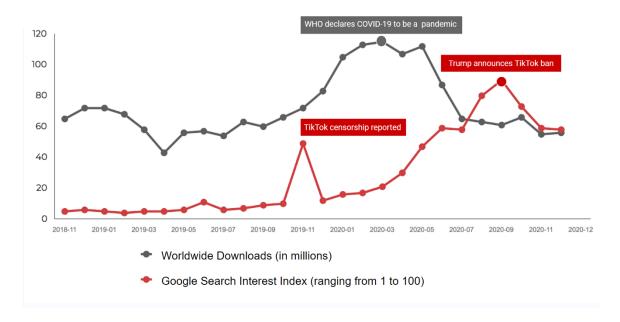


Figure 1. TikTok's worldwide download stats and Google's Search Interest Index "TikTok" between December 2018 and December 2020.²

Apart from strategic acquisitions and the by-products of the pandemic, technological and algorithmic features of the platform have also contributed to TikTok's success. On the one hand, the platform's strong focus on virality and its innovative features (e.g., special effects and filters) made it a hub for creative expression and playful sociality (Abidin, 2021; Zulli & Zulli, 2020). On the other hand, TikTok's proprietary recommendation system has turned its For You Page (FYP) into one of the most addictive scrolling experiences on the Internet. The FYP is the primary interface through which users interact with content on TikTok; videos are promoted to users via TikTok's algorithmic recommenders, which are savvy at personalizing interests and engagement. The intricate logic behind this algorithm is to make the scrolling experience as addictive as possible. This recommendation system is the core intellectual asset of ByteDance, which solidified its reputation on a global stage and brought its windfall through content personalization technology. During the 2020 TikTok

² Download data used to generate this figure included app downloads from both Apple's App Store and Google Play (Iqbal, 2021).

ban controversy in the United States, Chinese authorities even intervened to prohibit the company from selling TikTok's core algorithm to U.S. companies (Han & Chen, 2020).

In China, TikTok's global expansion has made it a prominent example of how the country can successfully export technology and, thus, strengthen its soft power, in line with the Chinese government's "digital silk road" ambition³ (Shen, 2018, p. 2683. However, in the international context, TikTok's "Chineseness" seems to have been anything but a blessing. Since its launch, TikTok has been surrounded by various political conflicts because of its Chinese ownership, and subsequent doubts around its ethos and policies. For instance, following the 2020 border dispute with China, the Indian government permanently banned TikTok, citing national security concerns (Abi-Habib, 2020). In the same year, TikTok bans were discussed in Australia and the UK (O'Malley, 2020; Taylor, 2020). Perhaps the most drastic measure was taken by then U.S. president Donald Trump in August 2020, when he signed an executive order to ban the platform in the name of national security (Singh, 2020). TikTok has also been temporarily or permanently banned in countries including Indonesia, Bangladesh, and Pakistan for allowing illicit content to be posted or hosted (Parkin, 2019; Wang, 2020).

Overview of TikTok Scholarship

The quick rise of TikTok and the controversies around it have attracted the interest of a quickly growing scholarly community. As of April 2021, 122 scholarly publications⁴ analyzing TikTok are in the Scopus database. As informed by a brief bibliometric review of these papers, TikTok studies began to appear in academic journals in 2019, with 13 articles published that year. In 2020, 66 papers were published, and 43 in the first quarter of 2021 alone. The dendrogram in Figure 2 shows the output of hierarchical clustering of keywords⁵ associated with these 122 papers, which could be organized and interpreted as four groups of research interests. The results suggest that the current TikTok scholarship is dominated by discussion about the platform's role in the COVID-19 pandemic (Clusters 1 and 3), user behavior and content characteristics (Cluster 2), and investigation into technological features of the platform (Cluster 4). Such topic foci should also be interpreted in relation to the disciplines that have contributed the most publications.

³ Digital silk road can be understood as infrastructure to help Chinese technological sectors go overseas.

⁴ Publications that include "TikTok" in the article title, abstract, or keywords.

⁵ The analysis included both keywords provided by authors and KeyWords Plus provided by Scopus database. KeyWords Plus are automatically generated and they are words that frequently appear in the titles of an article's references, but do not appear in the title of the article itself.

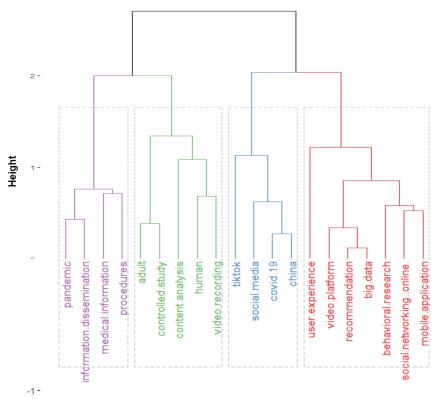


Figure 2. Dendrogram showing the result of the hierarchical clustering of keywords that are associated with TikTok publications.

Figure 3 shows five subject areas with the most TikTok-related publications. The subject area was assigned based on Scopus's categorization of journals. As indicated by the results, published scholarship around TikTok is led by the computer sciences and social sciences. The outbreak of COVID-19 and the subsequent lockdowns contributed to the growth of TikTok's user base and attracted widespread academic interest in the platform's potential to disseminate health information. This explains the large contribution from medical journals to TikTok scholarship.

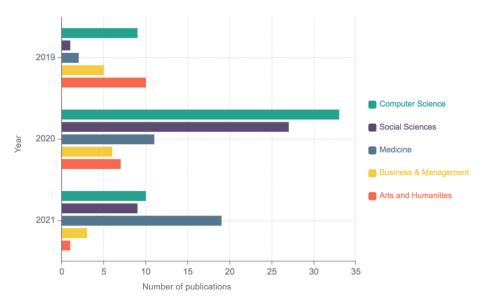


Figure 3. Five subject areas with the most TikTok-related publications.

Research on TikTok from media and communication studies has predominantly focused on the platform's specificity and its implications for digital cultures (Abidin, 2021; Kennedy, 2020; Schellewald, 2021; Zulli & Zulli, 2020). For example, Zulli and Zulli (2020) conceptualize TikTok as a "memetic text" that invites imitation and remix on a platform level. With a particular focus on the influencer culture, Abidin's (2021) study offers important insights into how visibility and attention are cultivated on TikTok. At the same time, case studies of TikTok-based campaigns have also been developed to interrogate youth political expression and collective action in the form of short videos (Hautea, Parks, Takahashi, & Zeng, 2021; Subramanian, 2021).

Furthermore, the first monographs and book-length academic studies on TikTok are en route. For instance, educator, producer, and prolific TikToker Trevor Boffone's (forthcoming) *Renegades: Digital Dance Cultures From Dubsmash to TikTok* discusses the roles that short-video platforms, as well as hip-hop music and dance, play in youth identity formation. Digital media scholars Bondy Kaye, Jing Zeng, and Patrik Wikstrom's forthcoming book *TikTok: Creativity and Culture in Short Video* (forthcoming, 2022, Polity Press) provides a broad overview of TikTok's platform features, as well as their social and cultural implications. Digital anthropologist Crystal Abidin's forthcoming book *TikTok and Youth Cultures* (forthcoming, 2022, Emerald Publishing) focuses on case studies in the Asia Pacific region to demonstrate how TikTok logics are permeating various social media, and how youth(ful) cultures are an essential ethos of TikTok's norms and mores. Together, these three texts offer early research agendas on TikTok studies, directing scholarly attention to the systemic inequalities entrenched in the platform logics and governance structures, the platform's initial dependence on young people and their vernacular innovations that constitute the early norms on TikTok, and other emerging short-video platforms.

Alongside the growing body of academic publications, TikTok scholarship, especially in media studies and cultural studies, has also seen a proliferation of TikTok-themed research networks and academic events. A notable example was the launch of the TikTok Cultures Research Network⁶ in October 2020 by one of the coeditors of this special section, Crystal Abidin. The network was comprised of Asia Pacific-based interdisciplinary scholars whose works focus on localized perspectives on the impact of TikTok. The regional focus of the Network led to two symposiums, Cultures of TikTok in the Asia Pacific, and TikTok & Youth Cultures in the Age of COVID-19.⁷ In March 2021, a UK-based network of Global TikTok Researchers made its debut on YouTube via an hour-long introduction, announcing intentions to consolidate a research network of academics who have an interest in TikTok Studies (Miah, 2021).

Special Section Articles

In the vein of expanding and diversifying TikTok scholarship, this Special Section offers research perspectives from five scholars and their pioneering scholarship on TikTok and its legacy apps, namely, Douyin and Musical.ly. In the first article, "From Musical.ly to TikTok: Social Construction of 2020's Most Downloaded Short-Video App," Milovan Savic provides insight into TikTok's predecessor Musical.ly and its early cohort of preteen users, or "Musers." Employing the social construction of technology (SCoT) as the theoretical and analytical lens, Savic seeks to understand the context in which Musical.ly was negotiated and appropriated by its preteen users and their guardians. Savic draws his findings primarily from qualitative interviews with 15 families, highlighting Musical.ly's design to appeal to the youth market, and explaining how the platform positioned itself rhetorically to circumvent moral panic around young people's use of technology. Even though the preteens' dominance of the platform may have been undermined by the "invasion" of their "TikTok dad," "TikTok mum," and even "TikTok grandparents," Savic's interrogation of the prehistory of TikTok remains valuable. In terms of technological features and platform culture, the early platform logic laid the foundation for what is known as *TikTok-ness* today (see Southerton's work from this Special Section).

Moving from Musers to TikToker, the second article, "You Made This? I Made This: Practices of Authorship and (Mis)Attribution on TikTok," sheds light on content creators' practices relating to the authorship and attribution of sound. D. Bondy Valdovinos Kaye, Aleesha Rodriguez, Katrin Langton, and Patrik Wistrom study the mutual shaping between platforms and cultural practices (Nieborg & Poell, 2018) through an indepth investigation of the "use this sound" feature on TikTok, which effortlessly allows TikTokers to create a new video using an existing audio clip. Drawing on a systematic qualitative content analysis of 999 TikTok videos, the authors reveal the limitations of TikTok's automated attribution system and identify a variety of novel sociotechnical practices used by TikTokers to give credit to others or subvert attribution to build personal clout. The authors offer a new conceptualization of attributional platform practices to explore the ways in which TikTokers are reconfiguring the act of giving and receiving credit on digital platforms. TikTok and many other short-video platforms champion virality and remix, and audio memes are a unique genre of content on TikTok (Abidin, 2021). At the same time, more music labels and independent musicians are using TikTok to make inroads into the international music recording industries (Stassen, 2020). It is foreseeable that as the usage

 $^{^{6}}$ TikTok research resources provided by the network are available at https://tiktokcultures.com/.

⁷ More details and recordings of this events are available at https://tiktokcultures.com/cultures-of-tiktok-in-the-asia-pacific/ and https://tiktokcultures.com/covid-19-event/.

of music on TikTok becomes more institutionalized and commercialized, the conflict between economic capital and meme ecologies will further intensify. The critique offered in this article invites further reflection on the future of authorship and ownership in the age of viral audio memes.

The following two articles shift the focus from cultural production to knowledge-making on TikTok. In Jing Zeng, Mike Schäfer, and Joachim Allgaier's article, "Reposting 'till Albert Einstein is TikTok Famous': The Memetic Construction of Science on TikTok," the authors discuss how platform affordances offer new opportunities and challenges for science communication. To understand how scientific content is presented and memefied on TikTok, the authors examined 1,368 video memes that are tagged as "science." The results from systematic content analysis uncover the most popular science TikTokers and science topics. Furthermore, employing the concept of "vernacular creativity" (Burgess, 2006), the study critically examines the vernacular styles of science memes on TikTok. These novel characteristics of science communication on TikTok reveal the peculiarity of short-video memes as a mediator to communicate science.

The article by Clare Southerton, "Lip-Syncing and Saving Lives: Healthcare Workers on TikTok," continues the discussion of TikTok's educational potential, with ethnographic case studies of TikTokers from the community of medical professionals. Set in the context of the COVID-19 pandemic, the article examines health workers' deployment of short videos to disseminate public health information. However, rather than taking a conventional science or health communication framework, Southerton's study draws its conceptual lens from the scholarship of micro-celebrities studies to understand healthcare workers' engagement with TikTok as a form of visibility labour (Abidin, 2016; Duffy, 2017; Marwick, 2015). For instance, whereas mainstream science and health communication scholarship focuses on how credibility and authority are established and challenged in digital environments (Bucchi, 2017; Thon & Jucks, 2017), Southerton's research highlights the importance of cultivating approachability, intimacy, and ordinariness in the short-video context. Both Zeng and colleagues' study of science memes and Southerton's research of healthcare TikTokers offer new insights into how to develop strategies to better engage with members of the young generation.

The last article, "Short Video Platforms and Local Community Building in China," from Wei Wang and Jiena Wu, investigates local content production and local community building on Douyin. With findings from online ethnography and interviews, the authors discuss how short-video platforms contribute to the development of county-level communities in China. The authors found that urbanization and fast economic and technological developments are challenging traditional social relations in Chinese society, and this invites a new research agenda to understand the role played by new digital technologies in negotiating Chinese localism and local identities. Wu and Wei's contributions are situated at the intersection between the rural and urban studies of local communities, where Chinese counties serve as a unique case study to explore the complexity of localism practices on Chinese social media.

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