



TikTok in 2022: Revisiting Data and Privacy

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Concerns over data privacy have continued to mount over the years amidst the prevalence of the social media networking service, TikTok. It is imperative to probe further on whether allegations and claims against TikTok hold any substance.

The popular social media application TikTok has consolidated itself as one of the most popular social media sites in the world. As with other social media giants, the prevalence of big data is astronomical, and the accompanying concerns of data privacy are two-fold. One of the leading questions is whether the issues of data privacy for TikTok are something to be worried about. After all, social media as a whole has never been estranged from allegations of data breaches or privacy intrusion. On the contrary, to those vested in the subject, social media privacy and data abuse may appear to be synonymous.

TikTok became the zeitgeist of popular culture for the majority of the past few years. The social media giant was created in 2016, and despite being the new kid on the block, the site quickly garnered a substantial following due to its mass marketing and addictive content. TikTok is a social media application that is predominantly used on a mobile phone, similar to Instagram or even more so to Vine. The content of TikTok generally consists of people uploading videos of themselves individually or in a group, dancing or doing comedic skits from lip syncing to making Internet memes (popular and humorous Internet culture). However, the contents of TikTok are numerous and quite frankly limited only by your imagination. TikTok users who produce consistent and viral content often become influencers or content creators on the platform. One of the most notorious uses for TikTok is short dance videos often overlapped with a catchy song to go with them.

The application is owned by the Chinese company ByteDance Ltd., which is the most valuable startup company in the world with a value that is more than double that of SpaceX and quadruple that of Airbnb.¹ The figures and statistics are impressive to say the least. Concisely put,

TikTok can be simply seen as short and entertaining videos: strategic shots of dopamine akin to other addictive content.

Regardless of one's opinion on the social media application, TikTok is very popular. With more than 3 billion downloads as of January 2022, it is evident through sheer numbers that the app has captivated many people around the globe.² In 2019, India was the largest consumer of TikTok, with the country comprising 43.76% of global TikTok users.² China was the second largest, with 27% of global TikTok users, and the United States was the third with 22%.² In the United States, 62% of TikTok users are in the 10–29 age bracket, thus making the age demographic predominantly composed of youths.³ Despite this, TikTok has shown a growing trend of adult users. As of January 2022, the amount of American adult users increased by 5.5 times over the last 18 months.² Therefore, to say that TikTok has penetrated only the market for youths is false since it is evident that there is a growing adult demographic of users.

Over the years, TikTok has been at the core of several allegations. At first, the fuss surrounding TikTok may seem perplexing because the app is, after all, just another social media app. To understand more about the controversies surrounding TikTok, one must delve deeper. In an era of misinformation, big data, and the Internet of Things (IoT), it is pivotal to understand the implications of what you use when navigating cyberspace. One of the most pressing questions that comes to mind when following the debate on TikTok is data privacy: Is there a cause for concern regarding TikTok's data collection, and is their method of data collection any different from other social media sites?

TikTok DATA PRIVACY

On 29 June 2020, the Government of India chose to ban several social media applications, one of which was TikTok.³ The Indian government cited

that its reason for this was due to data privacy and national security. Akin to this, on 6 August 2020, former U.S. President Donald Trump declared that TikTok was a threat to the United States and henceforth banned the application from use.⁴ President Trump made the executive order under the International Emergency Economic Powers Act. The contents of the executive order show vast similarities to the executive order of May 2019 against Huawei.⁵ Similar to the TikTok ban, the justification behind the order was primarily due to the threat

to national security that could arise from data collection. To add to the list, Reuters reported that authorities from The Netherlands and France have also opened preliminary investigations on TikTok.⁶ All of the investigations share one major concern: data privacy.

To understand the allegations and whether there is substance behind them, comparisons must be drawn. As a social media platform with staggering international usage and profitability, it is no wonder that the app has caught the eyes of major entities and governments, including the U.S. Federal Bureau of Investigation and the U.S. Transportation Security Administration. By default, plenty of social media applications had captured the information of their users through location data, activity, and usage. Data collection and privacy intrusion are by no means new topics. In fact, social media users are largely already familiarized with the notion that their data are collected and being used. According to the Pew Research Center, 72% of Americans reported that they felt their online activities were being tracked, while 79% of them were also

concerned over what their data were used for.⁷

Among the allegations of data misconduct, there have been big data scandals such as that of Facebook-Cambridge Analytica. In Facebook's scandal, Facebook users' personal data were given without user consent to the British political consulting firm, Cambridge Analytica. As a result of this, users were understandably furious with their privacy leakage and thus demanded greater measures on privacy and data security. Facebook got off relatively lightly by having to pay an

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approximate US\$640,000 fine.⁸ Given that a social media tycoon such as Facebook was found to be selling data, it is not too far-fetched to believe that other social media giants are doing likewise, perhaps even more discreetly.

Having established the notion that user data can be sold to other companies and that privacy is not guaranteed when using social media, the focus can now be narrowed down to TikTok. According to a study by Klais⁹ in 2022 that looked into 200 popular applications across several categories on Apple's iOS Store, two apps collected more data than any other app. Those two apps were Google and TikTok. Google claims to track your data to enhance your experience and tailor things specifically to you. For the most part, this can be boiled down to advertising and customized preferences throughout Google's wide portfolio of devices, applications, and services. Sidell, a writer for the cybersecurity software company Avast, claims that Google can "guess everything from your marital status to how happy you are at your job."¹⁰

With that said, Google is more transparent in claiming that collected

data are used for its own purposes of optimization. On the other hand, TikTok is not. An article from CNBC states that TikTok allows third-party trackers to collect your data.¹¹ The exact things that happen to your data from third-party trackers are not clear at all. Most likely, it could just be used for optimal advertising; however, at its worst, there might be more nefarious

to use your profile information to identify your activity across devices. We may also associate you with information collected from devices other than those you use to log-in to the Platform.”

It is important to reiterate that these privacy policy terms are, for the most part, also quite similar to those

ultimately lead to data abuse because there is no authentication for the process. As per the previously listed snippet of the privacy policy, TikTok will have access to hardware, network, app, and location-related information, to name a few. The things that the app does with this information are what the Internet user claims to be scary. In comparison with other social media sites, TikTok’s data collection could potentially be more intrusive given that the entirety of what is done to the data is mostly unknown. The Reddit user concluded that TikTok was worse than other social media.¹⁵ This claim arose after the user similarly reverse-engineered other sites, such as Instagram and Twitter. Overall, it was found that TikTok collected far more data than other social media sites, and therefore, the user advised people to stay away from the app.¹⁶ The user went so far as to accuse TikTok of being a data collection service in the disguise of a social media website.¹³

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intentions. Moreover, T. Huddleston, Jr., the entrepreneur writer from CNBC, also states that TikTok collects more data than other social media websites.¹¹ It may now be natural to ponder on just how many of these data are being given to third-party trackers. The study by Klais conveys that nearly all of the network contacts on TikTok were from third parties.⁹ To make matters worse, the trackers would remain in place even if users opted to not be tracked through the app settings.¹¹ So to make matters clear, a large chunk of your data gets collected by TikTok, and it is unclear where it goes. The exact data that are collected from TikTok are made explicit, as shown in the following excerpt from TikTok’s privacy policy taken from their website¹²:

“We collect certain information about the device you use to access the Platform, such as your IP address, user agent, mobile carrier, time zone settings, identifiers for advertising purposes, model of your device, the device system, network type, device IDs, your screen resolution and operating system, app and file names and types, keystroke patterns or rhythms, battery state, audio settings and connected audio devices. Where you log-in from multiple devices, we will be able


of other social media sites. However, unlike other social media sites, it has been made clear that TikTok shares collected data to third-party trackers and to other companies in the same group as TikTok, that is, ByteDance.¹² Some of the companies owned under ByteDance include BytePlus, which sells artificial intelligence (AI) and data tools, and Douyin, a news aggregator.¹³ The implications of an unimaginable amount of data being funneled for use by other companies and third-party trackers are numerous. All of this, coupled with the fact that a government has a stake in ByteDance, might perhaps give you a moment to consider your online activities.¹⁴

To delve deeper into some other details of TikTok’s data collection and matters of privacy, we will follow the actions of a popular Internet user’s post on Reddit (with more than 28,000 upvotes, backed by alleged software developers and cited by other articles) who reverse-engineered TikTok. The findings of this user were self-purportedly claimed to be shocking.¹⁵ Among the discoveries made, the user stated that the app’s logs are remotely configurable and that there are bits of code that enable the downloading of remote files and executing the binary of said files.¹⁵ Additionally, they stated that a local proxy server is set up on your device to transcode media.¹⁵ This can

THE VERDICT: SHOULD YOU BE USING TikTok?

Having gone through TikTok and its data collection methods, now comes the answer to the question you might be wondering about: Should I be using TikTok? Ultimately, the decision to use TikTok can be a tough one for some people. There is no argument that the social media app can be a great source of fun, as evident by the millions of active users. If you are very concerned about your privacy, it is safe to say that you should think twice about using TikTok. If you are on the fence on whether to use it from the idea that “you do not have anything to hide” or that “other social media sites also have your data,” you should consider that data privacy will only become more important in a future where the IoT, big data, and AI become a prominent part in day-to-day life. For those who are using TikTok, it does not have to be a cause of immediate alarm since many claims made against the app are still allegations. Most of the concrete

proof against TikTok is still unclear as to where the collected data are going. This leads to a lot of speculation and inevitable conspiracy theories.

If there is any lasting impression that should be left with you after reading this, it is that TikTok does indeed collect more data than most other social media sites and that the exact whereabouts of who uses the data and what they are being used for are not transparent. Indeed, to some, TikTok may seem to simply be a harmless and entertaining social media app. It might actually be true that it is harmless, but the evidence would at the very least tell you to think twice. In the end, you are in control of your own data, and if the allegations and mounting discoveries against TikTok concern you, then the decision on whether to use it is yours. 

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