

# Light on Safety: How TikTok Lite Sacrifices User Protections in the Global Majority

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## Executive Summary

To attract users across the Global Majority, many technology companies have introduced “lite” versions of their products: Applications that are designed for lower-bandwidth contexts. TikTok is no exception, with TikTok Lite estimated to have more than 1 billion users.

Mozilla and AI Forensics research reveals that TikTok Lite doesn’t just reduce required bandwidth, however. In our opinion, it also reduces trust and safety. In comparing TikTok Lite with the classic TikTok app, we found several discrepancies between trust and safety features that could have potentially dangerous consequences in the context of elections and public health.

Our research revealed TikTok Lite lacks basic protections that are afforded to other TikTok users, including content labels for graphic, AI-generated, misinformation, and dangerous acts videos. TikTok Lite users also encounter arbitrarily shortened video descriptions that can easily eliminate crucial context.

Further, TikTok Lite users have fewer proactive controls at their disposal. Unlike traditional TikTok users, they cannot filter offensive keywords or implement screen management practices.

Our findings are concerning, and reinforce patterns of double-standard. Technology platforms have a history of neglecting users outside of the US and EU, where there is markedly less potential for constraining regulation and enforcement. As part of our research, we discuss the implications of this pattern, and also offer concrete recommendations for TikTok Lite to improve.

## Introduction

In the relentless pursuit of global dominance, tech platforms have cast their nets far and wide, transcending geographical boundaries to establish themselves as formidable forces on the world stage. As they navigate this growth trajectory, they eagerly target emerging markets in continents like South America, Asia and Africa, where regulatory hurdles are often less stringent. This is where [tech platforms turn to “Lite” apps](#).

Lite apps are stripped-down versions of a service's applications which are much smaller in size, use less airtime, use less power, have special features, and offer lower quality content formats. It's an approach that is efficient for recruiting and maintaining users in emerging markets because many of the consumers have phones with small storage and old versions of Android; are highly conscious of how they use their airtime; and may be in areas with weak internet and scant power connections.

This strategy works. Facebook [pioneered it in 2015](#) with the launch of Facebook Lite, an app 40 times smaller than its main app. Within two years the app hit 200 million users and helped push up its revenue in ["Rest of World" markets by 52%](#). Following suit, Meta expanded this "Lite Approach" to encompass Messenger and Instagram. Not to be outdone, [Google](#) unveiled its suite of Lite apps including Gmail Go, YouTube Go, and Maps Go.

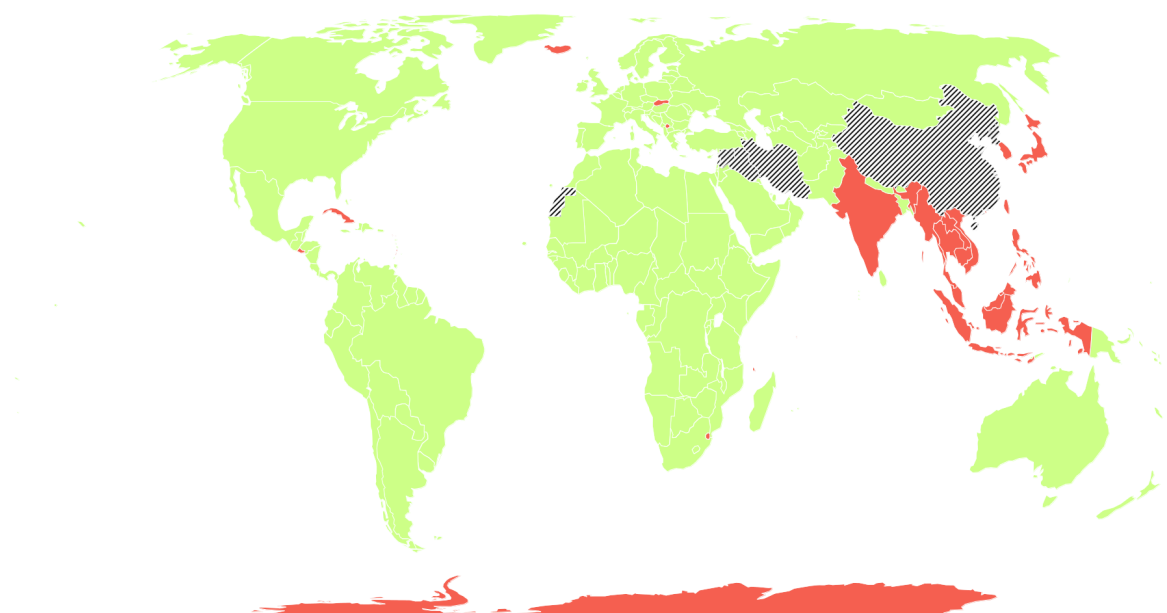
It comes as no surprise that TikTok, the viral short-form video platform owned by ByteDance, would adopt a similar strategy to conquer untapped markets. Since its inception in 2016, TikTok has galvanized a global audience, boasting a user base of 1.9 billion worldwide. At the forefront of TikTok's exponential growth trajectory lies TikTok Lite. Initially introduced [in Thailand in 2018](#), the Lite version has [since garnered nearly 1 billion downloads](#) on the Android Play Store — close to half of TikTok's user base.

Until recently, TikTok Lite wasn't available in much of the EU and the U.S., which means it flew under the radar of regulators in these countries. But after TikTok decided to launch Lite in [France and Spain](#), the EU demanded that the company carry out a risk assessment of the application. Prior to its EU debut, Mozilla Foundation and AI Forensics researchers were already carrying out risk assessments on TikTok Lite, uncovering variances in its architecture compared to its flagship counterpart, the findings of which we present in this report.

## Clarifying the different types of TikTok Apps

Depending on a user's country of origin, searching for "TikTok" or "TikTok Lite" in the Google Play Store may return three different apps. This is a source of complexity, and in this report we'll only cover two of these three apps. Let's look at them and their differences:

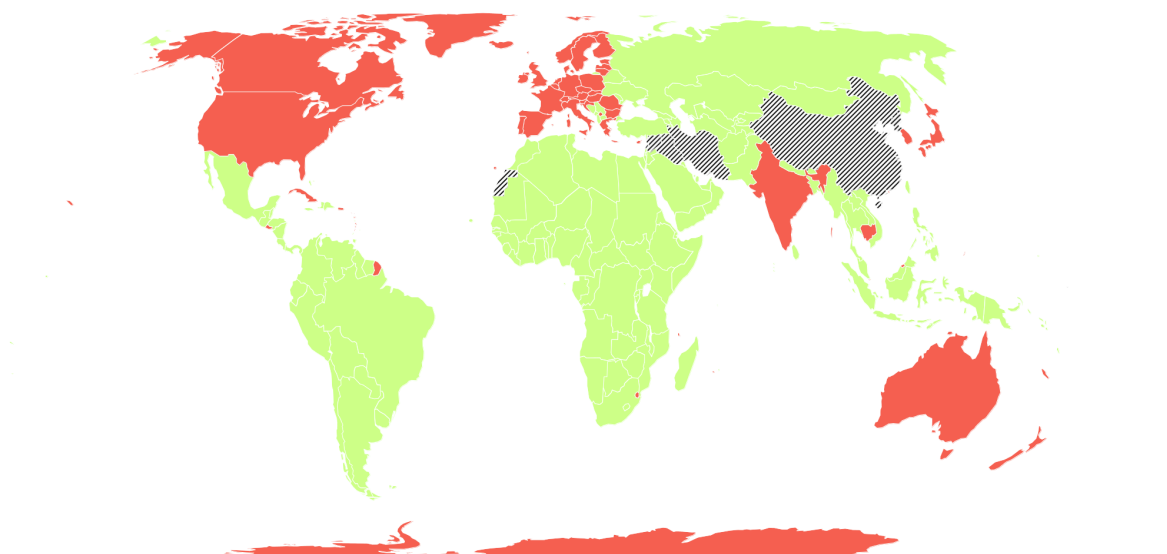
1. **"TikTok" (com.zhiliaoapp.musically)** is the classic TikTok application, known worldwide. It is reported to have more than 1 billion downloads globally, and it is the application that made TikTok famous. The Android Package Kit (APK) file that installs the application on the device is 371 megabytes in size.



*TikTok Availability by country*

*Red: not available Green: available Grey: appstore not available*

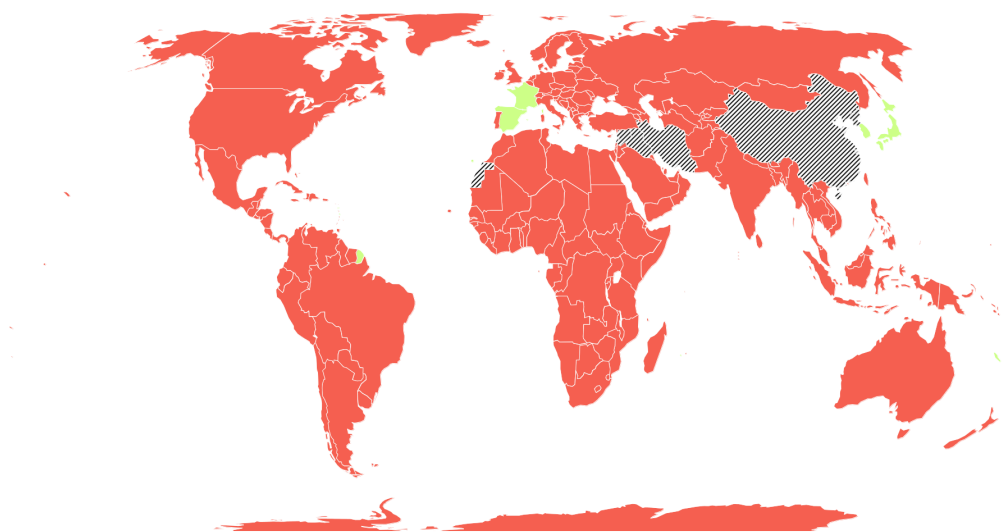
2. **"TikTok Lite - Save Data" (com.zhiliaobaoapp.musically.go)** is the application we're scrutinizing. The APK file is 36 megabytes in size. It is specifically targeted to regions with slower internet or where less powerful phones are widely used (also called Global Majority or Global South). This app also has more than 1 billion downloads in Google Play Store.



*TikTok Lite Save data Availability by country*

*Red: not available Green: available Grey: appstore not available*

3. **"TikTok Lite" (com.ss.android.ugc.tiktok.lite)** is a version of TikTok with an installation file weight of 112 megabytes and has been tested in certain regions of the so-called Global North. Its adoption faced [resistance](#) in April 2024 from various authorities due to the gamification and addictive design that mixes consumption of TikTok videos with rewards. In May 2024, the app had more than 5 million global downloads from the Google Play Store, and in July 2024 the download counts become 10+ millions.



*TikTok Lite Availability by country*  
*Red: not available Green: available Grey: appstore not available*

Henceforth, this report only refers to "TikTok Lite - Save Data," item number two on the above list and "TikTok," item number one on the list.

Because apps must comply with the standards required by different states, it's possible that an app may not be available in a particular region. Tech platforms typically run a series of checks to determine which country's jurisdiction a user falls under. For instance, residence is inferred by checking the SIM card, IP address, and account registration of the user's device. If any of these do not match the regional policy defined by ByteDance, the app may not run. To perform our tests comparing the two apps, we had to bypass these checks in order to install and run the app. We should assume that in most cases where an app doesn't comply with national law, it may not even be available for download. A search on <https://play.google.com> from a user's personal internet access (e.g. without VPN) would show which TikTok versions are available in their region.



## Methodology

Both the [Mozilla Foundation](#) and [AI Forensics](#) have researched TikTok given its pervasive influence. Moreover, both organizations have directed their scrutiny toward the [glaring global disparities](#) in the implementation of trust and safety measures by tech platforms. It is against this backdrop that the lite application ecosystem, with TikTok Lite at its forefront, has drawn our attention.

To conduct our assessment of TikTok Lite, we thoroughly reviewed the safety features embedded within TikTok's platform. Drawing from an exhaustive review of the platform's [community guidelines](#), [policies](#), and [settings](#) in its main application, we compiled a comprehensive list of these features. Safety features, in this context, encompass tools designed to safeguard users or deter harmful behavior or content. These tools serve various purposes, ranging from user safety initiatives to regulatory compliance measures. Our evaluation included:

- Labeling:
  - Misinformation labeling/Resource banners
  - Dangerous acts and graphic content labeling
  - AI content labeling
- User Controls:
  - Screen time management: daily screen time, screen time dashboard, screen time break, weekly screen time update
  - Content preference settings
  - Comment filtering
  - Reporting and blocking
  - Child restrictions
  - Search blocking

Equipped with test devices, we compared TikTok Lite against the main TikTok app, scrutinizing the availability of each feature in both iterations. Visual documentation in the form of screenshots was used to meticulously catalog any disparities observed between the two applications.

## Findings

Our research found that a number of critical safety elements present on TikTok's main app *were not* present in TikTok Lite.

### Labeling and Banners

Labeling is a key trust and safety lever implemented by tech platforms to help users identify and understand the nature of the content they encounter. However, it doesn't only exist in tech, labeling is a widely used strategy in various industries to inform consumer choice. The placement of expiry dates, ingredients, and calorie information among others in FMCG products

for example, help ensure regulatory compliance, build consumer trust, and support ethical choices.

Within tech platforms the practice involves tagging content with specific labels that provide context, such as identifying misinformation or explicit material, hence providing some form of guardrails for their users. While there is [debate](#) as to how effective labels are, the practice is a consistent step platforms take to confront information disorder, especially during [elections](#) or [pandemics](#). Below are examples of specific types of labeling differentials between the two apps:

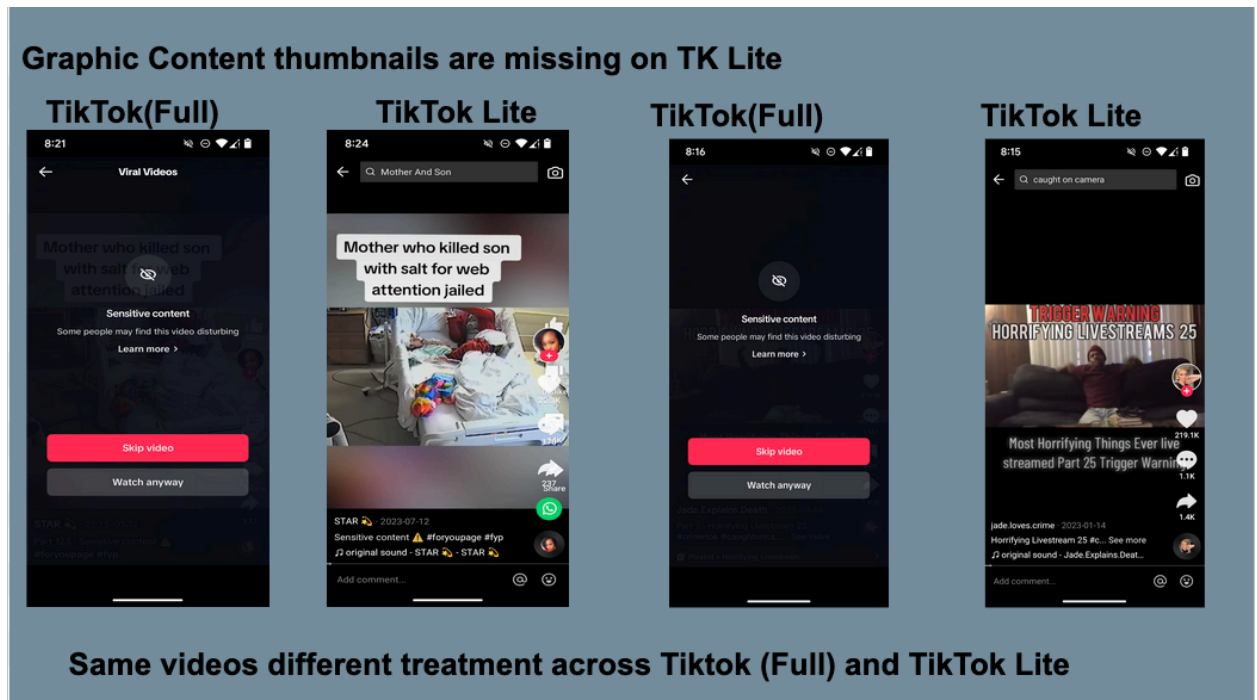
### Dangerous Acts Labeling

TikTok has faced scrutiny on multiple occasions due to the proliferation of [risky challenges](#) and the subsequent manifestation of hazardous behaviors from the app into the offline world. Adolescents in particular have been identified as a vulnerable demographic in this regard. Guidelines addressing such activities are outlined in TikTok's "[Dangerous Acts and Activity](#)" policies. Moreover, TikTok endeavors to deter such behaviors by affixing a "dangerous acts label" to pertinent videos, cautioning viewers with a disclaimer stating, **"The actions in this video are performed by professionals or supervised by professionals. Do not attempt"** or **"Participating in this activity could result in you or others getting hurt."** While this feature is readily available on the main TikTok app, it is notably absent from TikTok Lite.



## Graphic Content Banners

To address graphic content, TikTok's [guidelines stipulate](#) applying an "opt-in" screen or warning information to afford users greater control. However, upon comparing identical pieces of content classified as graphic on the main TikTok app with those on TikTok Lite, it becomes apparent that this safety intervention is absent in the latter iteration.

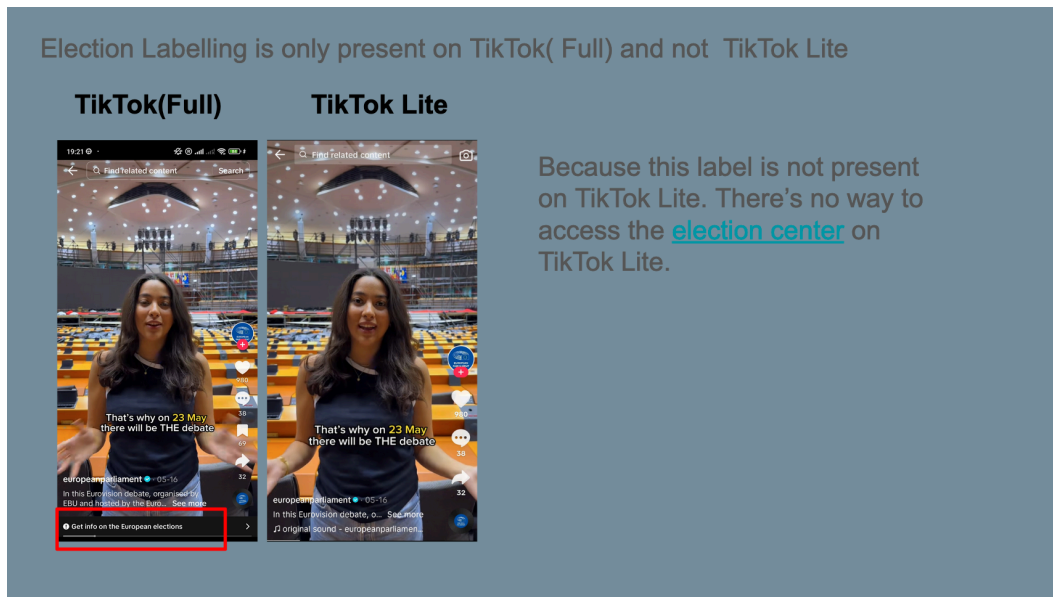


## Misinformation Labeling/ Resource Banners

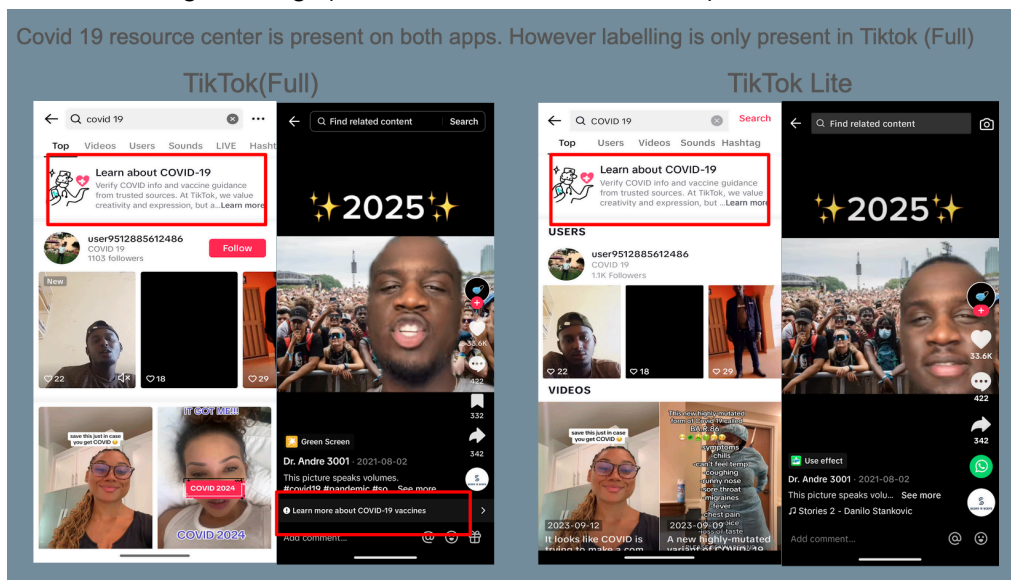
Like many of its counterparts, TikTok has found itself under the microscope regarding its handling of various forms of [misinformation](#), with particular emphasis on that of the health and political variety. In response, the platform has instituted labeling policies, especially in the lead-up to [elections](#) and during health crises such as [pandemics](#). These policies entail the placement of banners on videos addressing these sensitive topics, which, when clicked on, redirect users to more authoritative sources of information.

However, upon examination of these tools in the context of EU elections and Covid-19, a stark discrepancy emerges. While these banners are prominently featured on the main TikTok application, they are conspicuously absent from TikTok Lite. This discrepancy carries broad implications: Even if ByteDance establishes information hubs on these critical issues, TikTok Lite users have no simple pathway to reach them.

- Election content labeling



- Health warning labeling. (Such as that of Covid Labels)



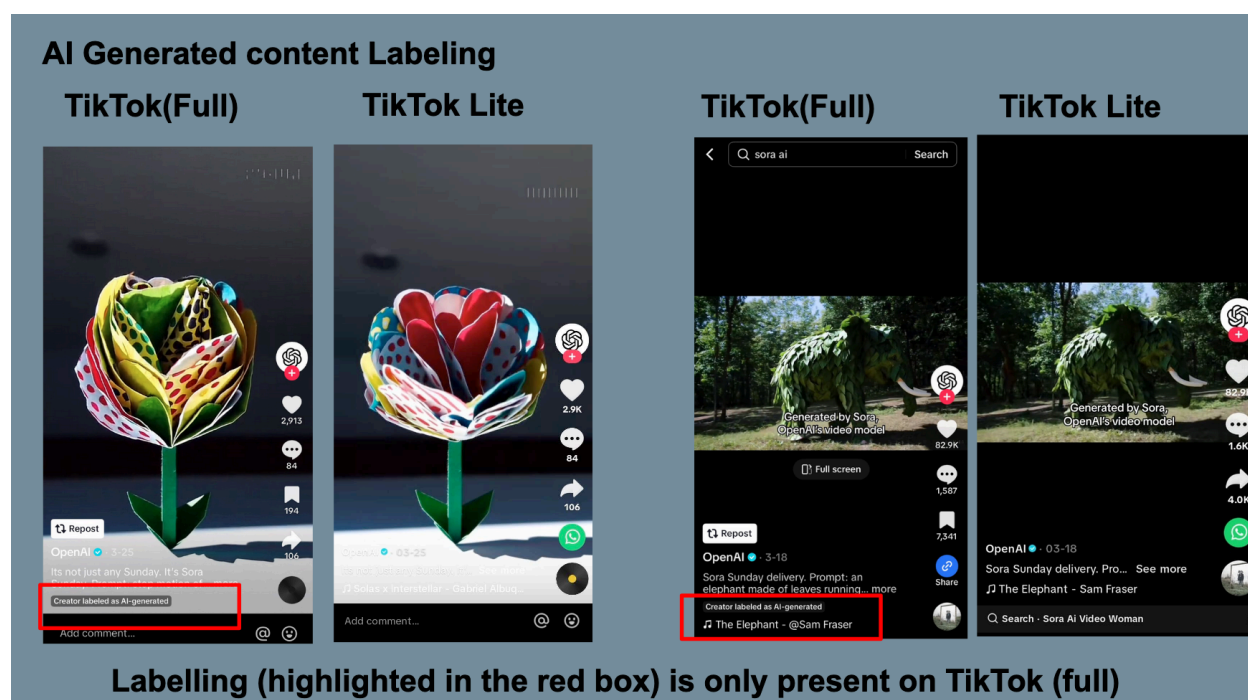
**Note:** Regarding the COVID-19 pandemics, two different banners exist, one is "Learn the facts about COVID-19" and another is "Learn more about COVID-19 vaccines". It allows the national health institution to configure two different links that address the specific topic.

## Labeling of AI-generated content

The advent of generative AI poses a formidable challenge to digital platforms, particularly in its potential to mislead users and exacerbate misinformation during pivotal moments such as elections. TikTok [itself acknowledges the inherent risks](#) associated with generative AI, as articulated in a recent statement: "AI enables incredible creative opportunities, but can

potentially confuse or mislead viewers if they're not aware content was generated or edited with AI. Labeling content helps address this, by making clear to viewers when content is significantly altered or modified by AI technology."

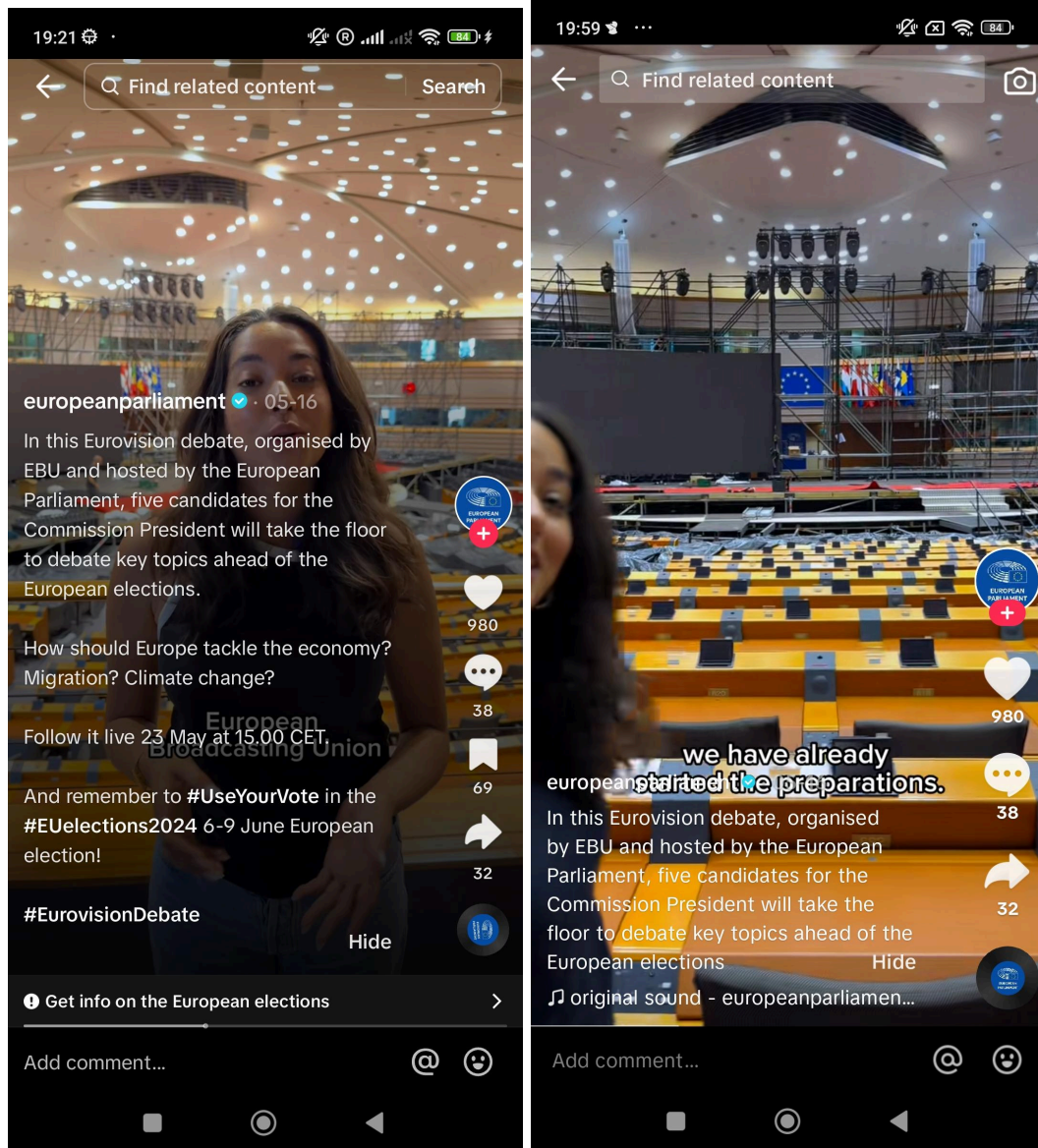
However, continuing a recurring pattern in our analysis, this proactive intervention has yet to be extended to TikTok Lite. This omission underscores the disparity in safeguards between the main TikTok application and its Lite counterpart, leaving users of the latter more vulnerable to deceptive AI-generated content.



### Reduced description text

Each post has a description field and can include meaningful contextual information, hashtags, and user mentions. In general, a larger description field is an opportunity to provide more in-depth information that doesn't fit into the video format. Users click on the "more" button to display this field. Once expanded, it can be collapsed again by clicking "**See less.**" On TikTok Lite, the description is shortened, and the creator doesn't control where the trimming happens.





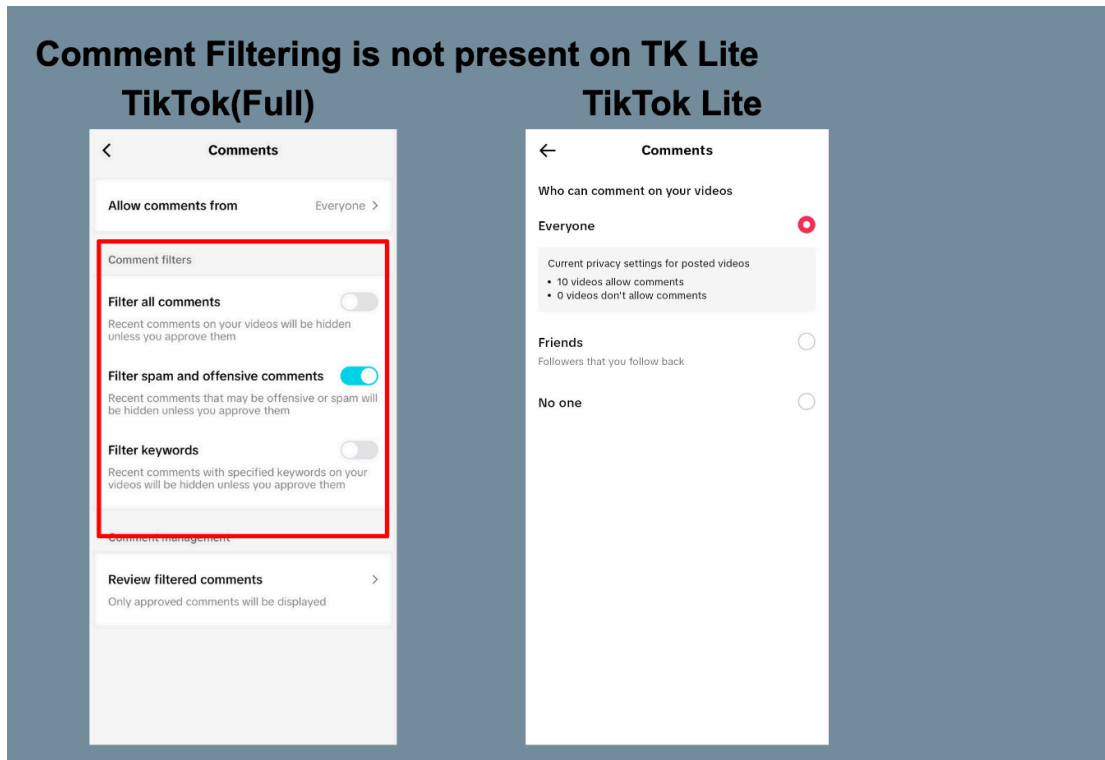
This is the same [video](#) with the description expanded.

## User Controls:

User controls are a fundamental pillar in the architecture of digital platforms, empowering users to tailor their experiences and engage with content that aligns with their preferences and values. Mozilla has [highlighted](#) the significance of ensuring these controls are both intuitive and accessible, recognizing the pivotal role they play in fostering a safe and personalized online environment. However, our study unearthed several user control disparities between the main TikTok app and TikTok Lite. This incongruity underscores a potential gap in functionality and

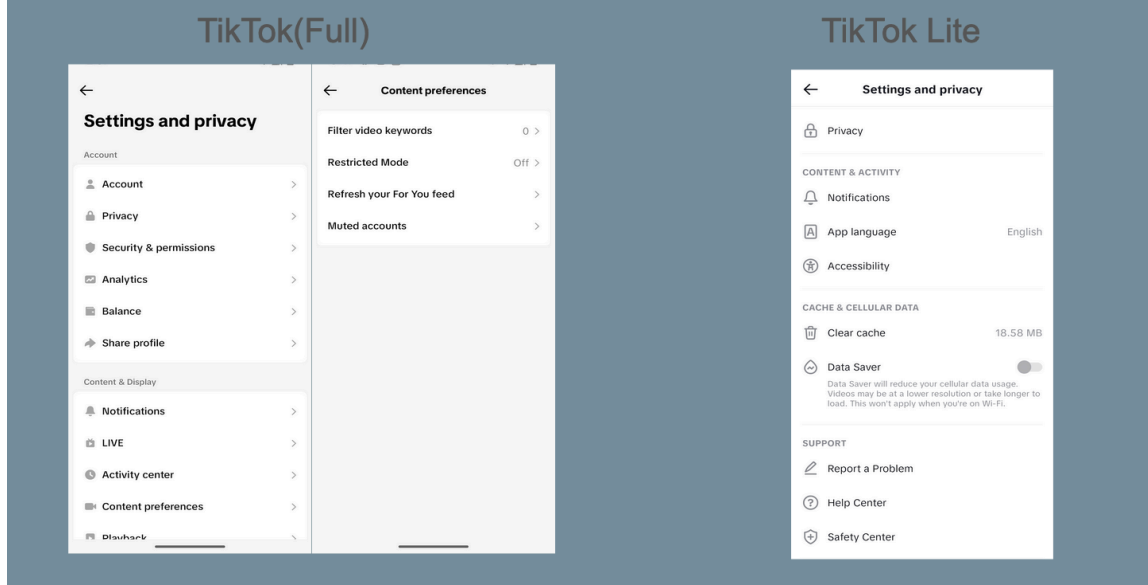
user empowerment between the two iterations of the app, warranting further scrutiny and attention from both users and platform developers. In particular:

- Comment Filtering options are not available on TikTok Lite.



- Content Preference settings including “restricted mode,” which [TikTok says is](#) pivotal for limiting content that may not be suitable for everyone. This setting is unavailable on TikTok Lite.

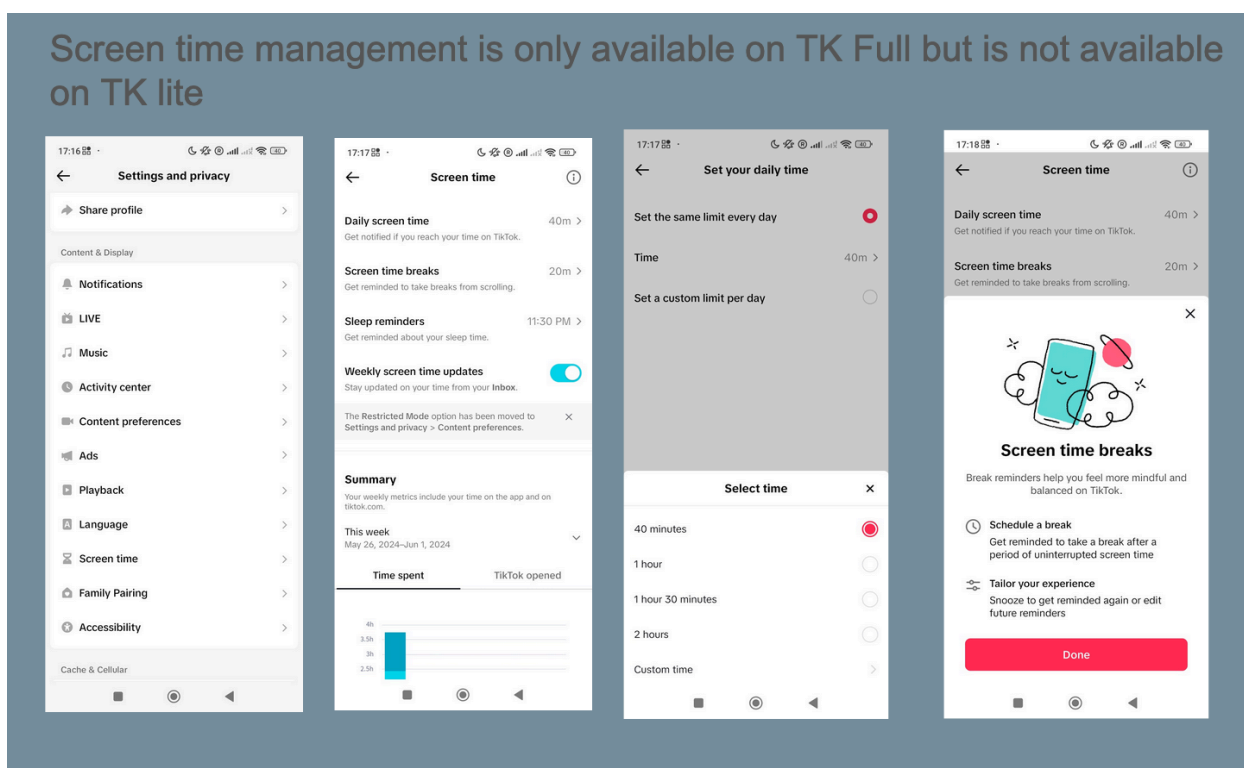
Content preference settings are not available on TK Lite.



- Screen time management is not present on TikTok Lite:

Amid mounting concerns surrounding screen addiction, [TikTok has taken proactive steps](#) to address this issue with inbuilt screen time management controls. These controls are purposefully crafted to curtail the amount of time users spend immersed in the app, a commendable stride to mitigate prolonged screen exposure and promote digital well-being. However, our research revealed this feature has yet to be implemented in TikTok Lite. This discrepancy underscores a potential disparity in user protection between the main TikTok application and its Lite counterpart, warranting attention and potentially further action from both users and platform developers.

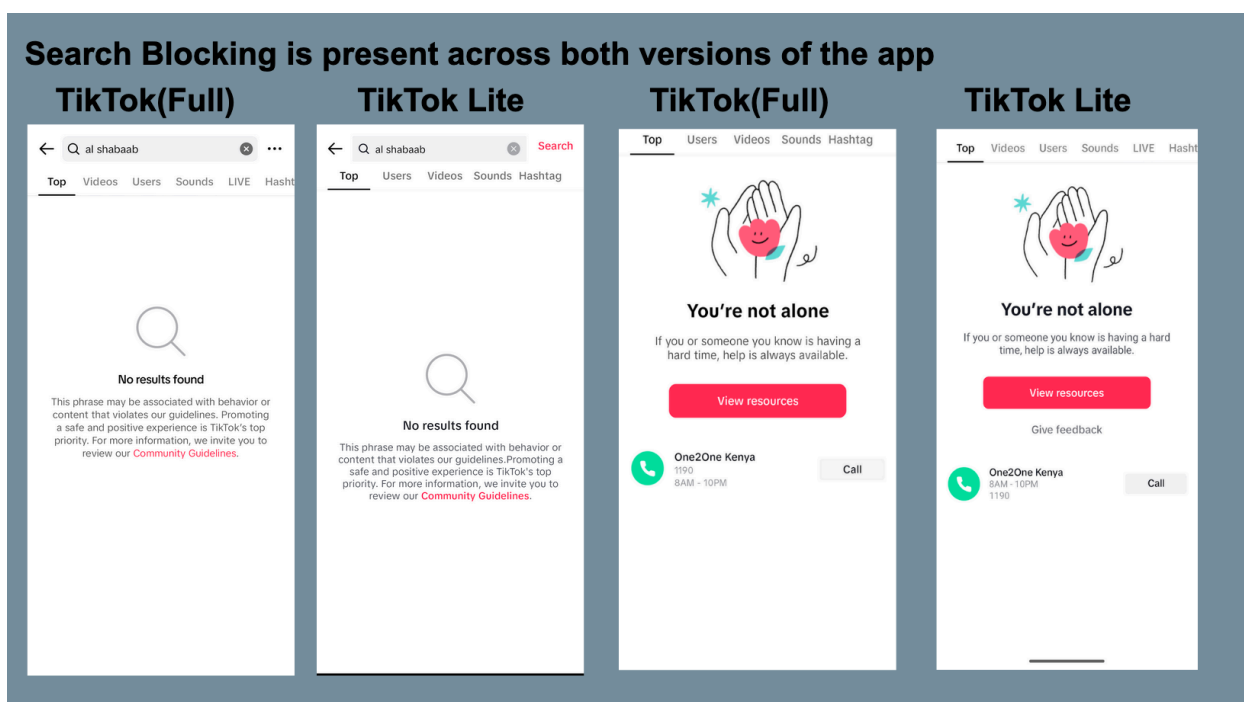




## Safety Measures Present Across Both Versions

From the list of interventions we investigated, we found that the following were present on **both** TikTok apps:

- **Malicious content reporting:** Both apps allow users to report videos, comments, messages, or accounts that they believe are harmful, abusive, or violate TikTok's community guidelines.
- **Search Banners:** Both apps contain informational prompts that appear at the top of search results pages when users search for certain keywords or topics that may be sensitive or prone to misinformation (e.g., COVID-19)
- **Search Blocking:** Both apps restrict users from searching for specific terms or phrases that are associated with harmful behavior or content that violates TikTok's community guidelines.



## Implications

[Tech platforms](#) have been faulted for neglecting the safety of their users in emerging markets, despite the fact that a significant portion of their user base hails from these regions. This dynamic has been characterized by some as an extractive relationship, where companies prioritize growth and profitability over the welfare of their users. Building upon [previous research on this topic](#), our findings reinforce some of the ways TikTok and other tech platforms may not be prioritizing the experience of users in Global Majority countries.

With numerous global elections this year, TikTok and [20 other tech platforms](#) pledged to combat AI-driven misinformation. However, the absence of AI content labeling on TikTok Lite heightens the systemic risks associated with generative AI on the platform at a time when [such tools are increasingly deployed](#) to target voters.

TikTok Lite's lack of "dangerous act" labels such as "Do not perform the acts in this video" is concerning, especially in an emerging market context. Many of the people who purchase phones for the first time as teens in Global Majority countries won't be purchasing iPhones or flagship Androids. Instead, they are most likely to [get phones that are better suited for TikTok Lite](#) due to the fact that such phones are cheap, have little storage, and a long battery life. What does it mean if dangerous acts and graphic warning interventions are excluded for this segment of users?

TikTok Lite's lack of meaningful user controls has led to significant obstacles to its launch in Europe. In a public statement, the European Commission expressed concerns over TikTok Lite's

potential impact on mental health, especially among children, citing worries around potentially addictive behavior. This apprehension is compounded by the absence of screen time management and other user control features in TikTok Lite, further highlighting the disparities in the two apps' experiences.

## Recommendations

The absence of a substantial number of safety features in TikTok Lite, an app with 1 billion users largely in Global Majority countries, is a cause for alarm. This trend mirrors a well-established pattern among companies in the context of global capitalism and exploitation, where substandard and unsafe products often find a dumping ground in economically disadvantaged regions. Consequently, TikTok Lite users may be more susceptible to app addiction and exposed to potentially more graphic, dangerous, misleading, and otherwise harmful content.

In light of these findings, we recommend that Bytedance prioritize the development of a TikTok Lite application that places equal emphasis on user safety compared to its main TikTok app.

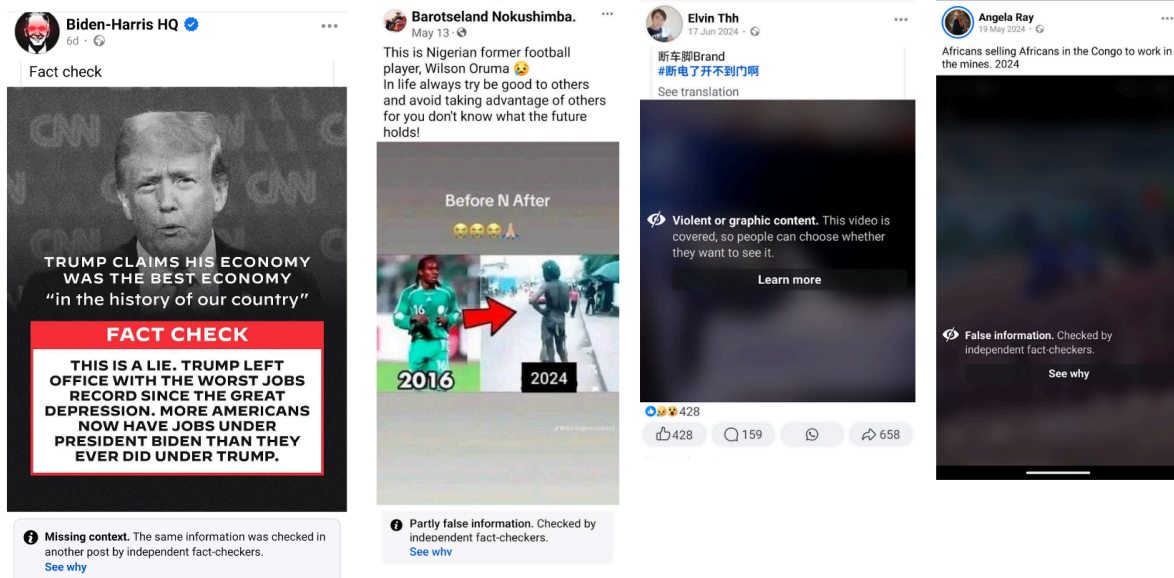
Specifically, we recommend that the following actions should be taken on TikTok Lite:

1. **Add labeling and banners.** TikTok should implement labeling mechanisms to safeguard against misinformation, dangerous behavior, AI-generated content, and graphic content on TikTok Lite. Such safety features should undergo rigorous testing to discern any contextual differences in their rollout.

There doesn't seem to be any good justification for the absence of labels on TikTok Lite. The main argument in the 'TikTok Lite' narrative is that it is a slimmed-down version, and that implicitly means sacrificing some features, including security, control and other options. From a technical standpoint, this argument doesn't hold:

- Safety labels appear as text over the video and contain a link. Since TikTok Lite already creates a layer over a video ( the description is an overlay, and the "see more" button is a link. Also the suggested search is an overlay, with a link), it would be possible to add the safety label as an overlay, on the bottom of the video, with the corresponding link. Rendering a layer is a negligible, consuming operation even in a low-cost phone.
- If content requires a special category banner, it uses a true or false value for each category. This extra data is minimal. On average, each video transfers 80 kilobytes of metadata in JSON format. Adding these booleans for safety banners and links (like to health authorities for COVID-19 vaccines) adds very little—less than 1% of the total metadata, similar to a hashtag.
- With all this in mind it's worth noting that Facebook has more trust and safety labels on its Lite App than TikTok does [despite being 5 times smaller](#).

## Labelling on Facebook Lite



2. **Enhance user controls.** The user controls available on the main TikTok app should be included on TikTok Lite.

For example, when it comes to screen time tracking, TikTok keeps track of everything you do in their app, whether you open comments, how long you read them, and each "tap." More importantly, this is the business model of TikTok: the app is designed around it, even the version to run with optimized resources.

We argue that since the tracking of consumption happens on TikTok's backend [infrastructure](#), it is possible to serve a reminder in the stream given that it is information known to the services. Therefore injecting a message into the video stream wouldn't cost more bandwidth.

3. **Provide more information about safety features:** It won't be enough to simply implement the above 2 solutions as several users will have spent even years in the TikTok Lite ecosystem without experiencing any safeguards. TikTok should also run in-app media literacy campaigns aimed at educating users about the intentions behind these features, reflecting the local languages and context.