

1. Briefly describe the incident and outline why it was controversial, in particular detailing any issues with *consent, transparency, fairness, and/or accountability*.

1. **Fairness/accountability:** TikTok used unencrypted HTTP to download media content from the company's Content Delivery Networks (CDNs), and these unencrypted HTTP connections are posing severe threats. The HTTP vulnerabilities allowed individuals to change content on existing TikTok accounts, upload unauthorized videos, make private videos public, and/or reveal personal information (including email addresses, phone numbers). During the COVID-19 pandemic, there're incidents where people were able to use a fake server to switch videos of the World Health Organization with a fake one. This incident has shown how easy it is to spread false information on this platform and that "using HTTP the way TikTok does is a cybercrime." (TikTok and privacy: What's the problem? Perhaps the video-sharing app gathers too much data, Graham)
2. **Consent/Transparency:** TikTok collects a significant amount of personal data to fine-tune its content recommendation algorithm. The types of information they are collecting include IP address, geolocation data, device identifiers, browsing and search history, social media accounts. TikTok and other social apps' differences are that TikTok does not offer options for enhancing your privacy, therefore lacking user consents.

TikTok, however, did provide user guidelines in terms of its data usage based on activities. TikTok's privacy policy is completely transparent about what kind of information is being collected and processed: "the content of the message and information about when the message has been sent, received and/or read, as well as the participants of the communication."

Such transparency does not follow the principle of respect for one person, since the cost to opt-out is too high. The principle of respect for one person requires individuals to volunteer for participation. Informing the subject of some pertinent aspects of the monitoring is likely to impair the platform's usages. Moreover, a common understanding among the public of how their data is being used does not exist; that said, most users do not know precisely what they've signed up for. The magnitude and time frame for such implications remain unclear.

3. **Consent:** TikTok does not offer the option to adjust your ad preferences. It also does not provide useful options to help you get more control over the ads you see. Nor exclude specific topics and accommodate your interests on the ad preferences dashboard.

2. Who was generally in the 'moral crumple zone' in the write-ups of the incident you are drawing on, and why? Would you argue that this was fair, or would you shift the blame elsewhere?

In the circumstances of the deepfake video, there are several liability parties involved, for example, the creator of the videos, the channel that it was delivered on, the channel itself for not having a screening, and SafeNet. A moral crumple zone addresses how responsibility for an effort may be misattributed to a human factor, which unfortunately has limited control over the system's behavior. (Elish, Madeleine Clare, Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction) In this case, I would shift part of the blame from the creators to the system. It's not saying creators take no responsibility; since the intentions and motivation for users' behavior should be held accountably. On the other hand, some of the blame must be distributed to the system.

TikTok must have control over its products, such as the recommendations algorithm, to show various sources to the users. TikTok has to have control over the user information, how much information is collected and being turned into profit. At the same time, the government can regulate the company's profit mode in a more effective way. TikTok also has to control the content's quality being posted to the public, specially set up age control, sensitive information claimers, and parental control.

3. Drawing on the discussion of delegation in Akrich, Ackerman, and/or the optional reading by Latour, what agency, or lack of agency, do each of these groups of actors have, and how might some give agency to or take agency away from others?

The delegation process - in which organizational work and agency are passed back and forth across the shifting line between "social" and "technical" elements.(Artifacts that organize: Delegation in the distributed organization, Ribes, Jackson, Burton, Geiger, Finhold) To evaluating and understanding how each group interacts in terms of agency, we can take several formulations into considerations. These formulations are (1) to each person an equal share, (2) to each person according to individual need, (3) to each person according to individual effort, (4) to each person according to societal contribution, and (5) to each person according to merit.

Affected: The majority of the TikTok users have reported that they spend 3.5hours per day on its contents. The algorithm works effectively to keep users on the platform and embedded information they probably don't need. Moreover, teenager users contribute more than half of the daily usages. While being a vulnerable group, TikTok lacks regulations and protocols to protect these individuals' privacy and control over the source. The only feature embedded in their

platform is a video notification when you spend too much time on TikTok. Users, in this case, have very little say in the systematic design, a lack of opt-in and out options making users' behaviors hard to autonomy.

Clients: TikTok profits from its ad sponsors and by taking creators' live streaming deductions. In the world of capitalism, profit is the driving force for any implementation change.

Designers: While a complete and accurate user profile is necessary for social platforms to offer a personalized user experience and ads tailored to users' interests. The development/enhancement of TikTok's recommendation algorithm has to be user-centric. However, the designers/engineers oversee the community effect their products have become, posing effects over the world and new generation. Content creators became a highly competitive market because of the algorithm. The algorithm forced the creator's community to keep pushing the legal/ethical/culture boundaries for their contents. It also unfair that TikTok uses geofencing to target a specific population with individual socioeconomic backgrounds that constitute a pool of preferred ad targeting subjects.

4. Describe one or more changes to the system(s) involved here that would increase fairness, transparency, and/or accountability. How would this shift the current delegation and responsibility pattern? What would likely not change? In particular, in what ways would the change(s) your proposal have mitigated the controversy around this system?

Considering the majority user of TikTok is teenagers, given young users' dependent status and their frequently compromised capacity for free consent, they should be protected against the danger of being involved in information sharing solely for business convenience. Bringing in powerful recommendation algorithms should be carefully evaluated to assess whether the variety of users is genuinely beneficial.

By reconstitute a privacy/transparency center, this shift would delegate more responsibility to TikTok, and hold the business accountable for its implementations on the platform and quality control. But since a large number of existed users and business models, it's very unlikely that the current algorithm and recommendation system would shift. The plausible approach is to add protocols and liability holders on top of the current system.

Transparency: On the user's side, it's recommended to use a sandboxing app to isolate TikTok services on the system. TikTok has launched a Transparency Center for moderation and data practices. Like many companies registering immense growth in the early stages, TikTok has been focusing on rapidly deploying features and expanding to new markets. Now, it's time for TikTok to focus on security and privacy features. Considering Tiktoc has track records, users might want

to consider limiting the amount of information they share on the app. For example, they could avoid linking other social accounts on TikTok.

Accountability: The relevant risks and benefits must be thoroughly arrayed in the informed consent process's documents and procedures. The nature, probability, and magnitude of risk should be distinguished with as much clarity as possible.

TikTok must have an ongoing process to verify that the potential benefits outweigh the potential harms. The selection of research subjects needs to be scrutinized to determine whether some classes, particularly racial and ethnic minorities or persons, are being systematically selected and sacrificed for public goods. Potential risks among many to be examined include decreasing trust between the services and users, the spread of falsified information, mislead social standards.

Citation:

Elish, Madeleine Clare, Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction (pre-print) (March 1, 2019). Engaging Science, Technology, and Society (pre-print), Available at SSRN: <https://ssrn.com/abstract=2757236> or <http://dx.doi.org/10.2139/ssrn.2757236>

TikTok and privacy: What's the problem? Perhaps the video-sharing app gathers too much data.

Jefferson Graham, USA TODAY

Artifacts that organize: Delegation in the distributed organization, Ribes, Jackson, Burton, Geiger, Finhold