UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

COALITION FOR INDEPENDENT TECHNOLOGY RESEARCH,

Plaintiff,

v.

GREG ABBOTT, in his official capacity as Governor of the State of Texas,

STEVEN C. MCCRAW, in his official capacity as Director and Colonel of the Texas Department of Public Safety,

AMANDA CRAWFORD, in her official capacity as Executive Director of the Texas Department of Information Resources and Chief Information Officer of Texas,

DALE RICHARDSON, in his official capacity as Chief Operations Officer of the Texas Department of Information Resources,

ASHOK MAGO, LAURA WRIGHT, LINDY RYDMAN, CARLOS MUNGUIA, MARY DENNY, MILTON B. LEE, MELISA DENIS, DANIEL FEEHAN, and JOHN SCOTT JR., in their official capacities as members of the Board of Regents of the University of North Texas System, and

MICHAEL WILLIAMS, in his official capacity as Chancellor of the University of North Texas System,

Defendants.

Civil Action No. 1:23-cv-783

DECLARATION OF PROFESSOR ETHAN ZUCKERMAN ON BEHALF OF PLAINTIFF COALITION FOR INDEPENDENT TECHNOLOGY RESEARCH IN SUPPORT OF ITS MOTION FOR A PRELIMINARY INJUNCTION

DECLARATION OF PROFESSOR ETHAN ZUCKERMAN

I, Ethan Zuckerman, declare as follows:

1. My name is Ethan Zuckerman, and I am an Associate Professor at the University of Massachusetts at Amherst, a Faculty Associate at Harvard's Berkman Klein Center for Internet and Society, and the director of the Initiative for Digital Public Infrastructure, a research group I founded to study and build alternatives to the existing commercial internet. I am also a board member of the Coalition for Independent Technology Research, and I submit this declaration on behalf of the Coalition in support of its motion for a preliminary injunction in the above-captioned matter. I have personal knowledge of the facts set forth herein, and, if called to testify as a witness, I could do so competently under oath.

2. My scholarship focuses on studying alternatives to the business and governance models of the current internet and, in particular, of social media. Prior to joining the University of Massachusetts, I was the director of the Center for Civic Media at the Massachusetts Institute of Technology and an Associate Professor of the Practice of Media Arts and Sciences at the MIT Media Lab. I am the author of two books, *Mistrust: How Losing Trust in Institutions Provides Tools to Transform Them* (WW. Norton & Company, 2021) and *Rewire: Digital Cosmopolitans in the Age of Connection* (WW. Norton & Company, 2013). And some of my scholarship includes:

a. Hal Roberts, Brittany Seymour, Sands Alden Fish II, Emily Robinson & Ethan Zuckerman (2017), *Digital Health Communication and Global Public Influence: A Study of the Ebola Epidemic*, Journal of Health Communication, 22:sup1, 51–58, https://doi.org/10.1080/10810730.2016.1209598.

b. Ethan Zuckerman (2021), *Why Study Media Ecosystems?*, Information, Communication & Society, 24:10, 1495–1513, https://doi.org/10.1080/1369118X.2021.1942513.

c. Orestis Papakyriakopoulos & Ethan Zuckerman (2021), *The Media During the Rise of Trump: Identity Politics, Immigration,"Mexican" Demonization and Hate-*

Crime, Proceedings of the Fifteenth International AAAI Conference on Web and Social Media, https://ojs.aaai.org/index.php/ICWSM/article/view/18076/17879.

d. Ethan Zuckerman, *Mistrust, Efficacy and the New Civics: Understanding the Deep Roots of the Crisis of Faith in Journalism*, Knight Commission Workshop on Trust, Media and American Democracy, Aspen Institute, 2017, http://hdl.handle.net/1721.1/110987.

The Coalition for Independent Technology Research

3. The Coalition for Independent Technology Research is a membership organization founded in 2022 to advance, defend, and sustain the right to study the impact of technology on society. We formed the Coalition after Facebook sent a letter to two researchers at New York University—Damon McCoy and Laura Edelson—demanding that they cease their research into the spread of disinformation on Facebook's platform. Since then, the Coalition has served as a home for academics, journalists, civil society researchers, and community scientists committed to advocating for and organizing in defense of research that is ethical, transparent, and privacy-preserving. The Coalition now has more than 300 individual members and 40 organizational members.[1]

4. The Coalition advances its mission in a variety of ways—by organizing in the mutual defense of independent researchers whose work comes under threat, by articulating and defending the importance of research that is independent of technology companies, by contributing to the development of ethical and privacy standards for independent research, and by convening researchers to collaborate in the development of best practices and shared resources.

5. For instance, in the wake of Reddit's recent decision to restrict access to data on its platform, the Coalition publicly called upon Reddit to develop a mechanism for independent researchers to continue work that depended on that access to data. It sent the demand on behalf of

[1] The Coalition is a fiscally sponsored project of Aspiration, a Washington nonprofit public benefit corporation.

over 350 individuals and organizations, including affected researchers and members of Reddit's community of voluntary moderators, whose work enforcing community guidelines on Reddit also depends on access to the data the company had restricted. At the same time, the Coalition conducted an open survey of the affected researchers and moderators; 118 individuals participated, and the Coalition published the results of the survey in July.[2]

6. The Coalition organized a similar response to Twitter's recent decision to dramatically increase the cost of automated access to data on its platform. Researchers studying Twitter had long relied on data accessible through an Application Programming Interface ("API") that was offered to public-interest researchers for free. Earlier this year, however, Twitter terminated that access and began to charge tens of thousands of dollars per month for comparable access, effectively shuttering hundreds of research projects that would have increased public understanding of the platform and the significant public discourse that circulates on it. In a letter signed by over 600 individuals and over 100 organizations, the Coalition publicly called upon Twitter to restore free access to its data for researchers and community moderators whose work serves the public interest.[3]

7. Among the Coalition's members are some of the most prominent organizations and research institutions illuminating the ways in which new technology is shaping and being used to shape society, including, for example, the Citizens and Technology Lab at Cornell University; the Dangerous Speech Project; New York University's Cybersecurity for Democracy and its Center for Social Media & Politics; the Social Science Research Council; the Stanford Internet

[2] Sarah Gilbert, J. Nathan Matias, Ethan Zuckerman, Yellowmix & James Mickens, *Survey Report: Reddit's Actions Continue to Undermine Moderation & Research*, Coalition for Independent Technology Research (July 12, 2023), https://independenttechresearch.org/reddit-survey-results/.

[3] Coalition for Independent Technology Research, *Letter: Imposing Fees to Access the Twitter API Threatens Public-Interest Research* (Feb. 6, 2023), https://independenttechresearch.org/letter-twitter-api-access-threatens-public-interest-research/.

Observatory; the Center for Ethics, Society, and Computing at the University of Michigan; the University of California at Berkeley's D-Lab; the University of Texas at Austin's Media & Democracy Data Cooperative.

8. The Coalition's members engage in wide-ranging work, all directed in one way or another at helping the public understand how technology is changing society—in ways both positive and negative—and how to address societal challenges created or exacerbated by new technology. To give a few examples:

a. The Citizens and Technology ("CAT") Lab at Cornell University works with online communities to study the effects of technology on the public interest. In 2019, for example, CAT Lab's director published a research paper in the Proceedings of the National Academy of Sciences on ways that online communities might reduce the prevalence of harassment and increase group participation. The paper was based on a large-scale field experiment designed in collaboration with The New Reddit Journal of Science (r/science), a 13-million-subscriber community on the Reddit platform.[4]

b. New York University's Cybersecurity for Democracy studies, among other things, the use of advertisements on Facebook's platform to spread disinformation or to perpetrate fraud. For example, after conducting an audit of over 33 million advertisements on Facebook's platform that ran between July 2020 and February 2021, the researchers concluded that Facebook had misclassified a significant percentage of the political ads that had not been declared as political by their purchasers, and that Facebook had allowed more than 70,000 political ads to run during its moratorium on political ads around the U.S. 2020 elections.[5]

c. The Dangerous Speech Project investigates speech that can inspire mass violence and other harms and the best ways to counteract such speech, including through counterspeech. In 2017, for instance, the project published the results of its investigation into counterspeech on Twitter, providing a taxonomy of that speech

[4] J. Nathan Matias, *Preventing harassment and increasing group participation through social norms in 2,190 online science discussions*, Proceedings of the National Academy of Sciences, Vol. 116, Issue 20 (May 14, 2019), https://www.pnas.org/doi/epdf/10.1073/pnas.1813486116.

[5] Victor Le Pochat, Laura Edelson, Tom Van Goethem, Wouter Joosen, Damon McCoy & Tobias Lauinger, *An Audit of Facebook's Political Ad Policy Enforcement*, USENIX Security (2022), https://cybersecurityfordemocracy.org/audit-facebook-political-ad-policy-enforcement.

and concluding that counterspeech on Twitter may in fact be effective at changing attitudes online.[6]

The importance of independent technology research

9. The kind of independent research into new technology conducted by the Coalition's members and others is essential because technology companies have immense power to observe, shape, and intervene in people's everyday lives. As explained in the subsequent section, independent research into TikTok is particularly urgent, but research into the many other technologies shaping society is also crucial. While humanity benefits greatly from the digital communication and connection these technologies provide, some of the technologies are associated with profound social harms. Society needs trustworthy, independent research to expose and mitigate these harms. Research can help us understand these technologies more clearly, identify problems, hold power accountable, imagine a better world, and test ideas for mitigating harm. While major technology companies employ large teams of talented researchers, the companies share their own research only inconsistently, and their research is ultimately conducted in service of their own needs rather than those of society more broadly.

10. Independent research into the platforms is particularly important because the platforms themselves release little data publicly for researchers and journalists to study. As I mentioned above, Twitter and Reddit recently shut off free or low-cost access to data on which researchers had previously relied. While Meta continues to offer transparency tools that can be used to study its platforms—including Facebook and Instagram—those tools are extremely limited and offer only a narrow window into the platforms' influence on society. TikTok recently

[6] Lucas Wright, Derek Ruths, Kelly P Dillon, Haji Mohammad Saleem & Susan Benesch, *Vectors for Counterspeech on Twitter*, Association for Computational Linguistics, Proceedings of the First Workshop on Abusive Language Online (2017), https://aclanthology.org/W17-3009.pdf.

announced that it will offer an API to researchers, but the details of its plan have already been criticized by independent researchers.[7]

11. Some of the social media companies have even sued or threatened to sue researchers who study their platforms in alleged violation of the companies' terms of service. On July 31, 2023, for example, X Corp. sued the Center for Countering Digital Hate, claiming that the non-profit conducted its research in violation of X Corp.'s terms of service and that the non-profit's claims about the presence of hate and disinformation on the company's platform had caused "at least tens of millions of dollars" in damages.[8] When researchers at NYU recruited volunteer Facebook users to donate information about the advertisements Facebook showed them, Meta sent a cease-and-desist letter demanding that the researchers shut down their research, and cancelling the researchers' personal Facebook accounts in retaliation.[9] In 2018, Facebook sent a similar demand to journalists at Gizmodo who had released a browser plug-in that allowed users to investigate the "friend recommendations" that Facebook made to them through its "people you may know" feature.[10] And two years ago, Meta sent a threat to a U.K.-based developer who had released a tool that allowed users to automate the burdensome process of unfollowing friends on Facebook, and who had partnered with a research university to use the tool to study the allure of Facebook's news feed.[11]

---

[7] Dr. Joe Bak-Coleman, *TikTok's API Guidelines Are a Minefield for Researchers*, Tech Policy Press (Feb. 22, 2023), https://techpolicy.press/tiktoks-api-guidelines-are-a-minefield-for-researchers/.

[8] *See* Complaint, *X. Corp. v. Center for Countering Digital Hate, Inc.*, No. 3:23-cv-03836 (N.D. Cal. July 31, 2023).

[9] Laura Edelson & Damon McCoy, *We Research Misinformation on Facebook. It Just Disabled Our Accounts*, N.Y. Times, Aug. 10, 2021, https://www.nytimes.com/2021/08/10/opinion/facebook-misinformation.html.

[10] Kashmir Hill & Surya Mattu, *Facebook Wanted Us to Kill This Investigative Tool*, Gizmodo, Aug. 7, 2018, https://gizmodo.com/facebook-wanted-us-to-kill-this-investigative-tool-1826620111.

[11] Louis Barclay, *Facebook Banned Me for Life Because I Help People Use It Less*, Slate, Oct. 7, 20219, https://slate.com/technology/2021/10/facebook-unfollow-everything-cease-desist.html.

12. Despite these challenges, independent research has been crucial to informing public debate about the platforms and to illuminating the impact of the platforms on democratic institutions. There are too many examples of this kind of research to summarize, but here are several more recent examples. Researchers at Texas Tech University have studied the effect of social media use on the mental health of adults, concluding that it "impacts their ability to regulate their emotions and increases their perceived stress."[12] A number of psychologists have independently researched both the beneficial and detrimental effects of Instagram and found that, while the platform can provide people with the ability to connect and to develop a sense of community, it can also engender false social comparison, disordered eating, and problems with social anxiety, self-esteem, and mood.[13] The studies also found that "users who engage in digital status seeking (looking for popularity online) and social comparison (evaluating oneself in relation to others)" were at greater risk of "depressive symptoms, social anxiety, and body image concerns." A study conducted by Michigan State University found that excessive use of online social networking sites, such as Facebook and Instagram, can encourage riskier behavior and symptoms often associated with substance use and behavioral addictive disorders.[14] And a number of papers have examined the claim that YouTube's recommendation algorithm sends users down

[12] Mckenzi Morris, *Professors Analyze Social Media's Impact on Mental Health in Emerging Adults*, Texas Tech Today, Oct. 23, 2019, https://today.ttu.edu/posts/2019/10/Stories/social-media-mental-health.

[13] Zara Abrams, *How Can We Minimize Instagram's Harmful Effects?*, American Psychological Association, Dec. 2, 2021, https://www.apa.org/monitor/2022/03/feature-minimize-instagram-effects.

[14] Dar Meshi, Anastassia Elizarova, Andrew Bender & Antonio Verdejo-Garcia (2019), *Excessive social media users demonstrate impaired decision making in the Iowa Gambling Task*, Journal of Behavioral Addictions, 8(1), 169-173, https://doi.org/10.1556/2006.7.2018.138.

a "rabbit hole of radicalization."[15] Perhaps in response to this research, YouTube changed its recommendation systems, and the rabbit-hole effect is now far less commonly observed.[16]

13. Research has also demonstrated that social media platforms have significant effects not only on individual users, but on society and its institutions. For example, investigators at the Center for Economic and Policy Research have found that Twitter has a "considerable influence on what content is published by mainstream media," particularly media outlets that rely heavily on advertising revenue.[17] And many researchers around the world have explored the ways in which social media platforms have been vital tools for fueling major events, favorable and catastrophic, from the Arab Spring[18] to atrocities in Myanmar.[19]

---

[15] Mark Ledwich & Anna Zaitsev, *Algorithmic Extremism: Examining YouTube's Rabbit Hole of Radicalization*, arXiv e-prints, 2019, https://arxiv.org/abs/1912.11211; Manoel Horta Ribeiro, Raphael Ottoni, Robert West, Virgílio A.F. Almeida & Wagner Meira, *Auditing Radicalization Pathways on YouTube*, arXiv e-prints, 2019, https://arxiv.org/abs/1908.08313.

[16] Aaron Shaw, *Social Media, Extremism, and Radicalization*, Science, Aug. 30, 2023, https://www.science.org/doi/10.1126/sciadv.adk2031; Annie Y. Chen, Brendan Nyhan, Jason Reifler, Ronald E. Robertson & Christo Wilson, *Subscriptions and External Links Help Drive Resentful Users to Alternative and Extremist YouTube Channels*, Science, Aug. 30, 2023, https://www.science.org/doi/full/10.1126/sciadv.add8080; Elizabeth Dwoskin, YouTube *Is Changing Its Algorithms to Stop Recommending Conspiracies*, Wash. Post, Jan. 25, 2019, https://www.washingtonpost.com/technology/2019/01/25/youtube-is-changing-its-algorithms-stop-recommending-conspiracies/.

[17] Chance Townsend, *Algorithm Reveals How Twitter Hurts the Quality of News*, Mashable, Jul. 9, 2022, https://mashable.com/article/twitter-influence-mainstream-media.

[18] Gilad Lotan et al., *The Revolutions Were Tweeted: Information Flows During the 2011 Tunisian and Egyptian Revolutions*, 5 Int'l J. Commc'n 1375 (2011), https://ijoc.org/index.php/ijoc/article/view/1246/643 (analyzing "Twitter information flows during the 2011 Tunisian and Egyptian uprising" and finding a "symbiotic relationship between news media and information sources"); Axel Bruns et al., *The Arab Spring and Social Media Audiences: English and Arabic Twitter Users and Their Networks*, 57 Am. Behavioral Scientist 871 (2013), https://journals.sagepub.com/doi/10.1177/0002764213479374 (analyzing "the relative levels of activity in Arabic, English, and mixed-language tweets featuring the #egypt and #libya hashtags and on the interactions between these different linguistic groups"); Christopher Wilson & Alexandra Dunn, *Digital Media in the Egyptian Revolution: Descriptive Analysis from the Tahrir Data Sets*, 5 Int'l J. Commc'n 1248 (2011), https://ijoc.org/index.php/ijoc/article/view/1180/682 (analyzing "hashtags associated with #jan25" and finding that "Twitter supported the development of a transnational dialogue surrounding the Egyptian revolution").

[19] *The Social Atrocity: Meta and the Right to Remedy for the Rohingya*, Amnesty Int'l (2022), https://www.amnesty.org/en/documents/ASA16/5933/2022/en/ (finding that "Meta's content-shaping algorithms and reckless business practices facilitated and enabled discrimination and violence against the Rohingya"); Jeffrey Sablosky, *Dangerous organizations: Facebook's content moderation decisions and ethnic visibility in Myanmar*, 43 Media, Culture & Soc'y 1017 (2021), https://journals.sagepub.com/doi/full/10.1177/0163443720987751 (examining

14. Independent research has been especially important to shedding light on the platforms' privacy practices. An investigation by researchers at ProPublica revealed that, in 2016, Facebook relied on data it collected and purchased about its users to categorize each one according to at least "52,000 unique attributes."[20] Journalists at the Guardian and the New York Times revealed that the political firm Cambridge Analytica had surreptitiously harvested data from Facebook relating to 50 million of the platform's users, and then sold access to the data to enable the targeting of voters in the 2016 elections.[21] An earlier study by Pennsylvania State University researchers concluded that Facebook needed to do more to protect its users from unauthorized data collection by third-party apps on the platform.[22] And researchers at the University of Texas at Dallas studied the ability of third parties to infer private information about social media users based

---

Facebook's "haphazard attempts to moderate ethnic behavior in Myanmar" and showing how its "ambiguity and impenetrable decision making has inadvertently furthered authoritarianism").

[20] Julia Angwin, Surya Mattu & Terry Parris Jr., *Facebook Doesn't Tell Users Everything It Really Knows About Them*, ProPublica, Dec. 27, 2016, https://www.propublica.org/article/facebook-doesnt-tell-users-everything-it-really-knows-about-them.

[21] Harry Davies, *Ted Cruz Using Firm that Harvested Data on Millions of Unwitting Facebook Users*, Guardian, Dec. 11, 2015, https://www.theguardian.com/us-news/2015/dec/11/senator-ted-cruz-president-campaign-facebook-user-data; Kevin Granville, *Facebook and Cambridge Analytica: What You Need to Know as Fallout Widens*, N.Y. Times, Mar. 19, 2018, https://www.nytimes.com/2018/03/19/technology/facebook-cambridge-analytica-explained.html.

[22] Na Wang et al., *Third-Party Apps on Facebook: Privacy and the Illusion of Control*, 2011 Proc. 5th ACM Symposium Comput. Human Interaction Mgmt. Info. Tech. 1, 2, https://dl.acm.org/doi/abs/10.1145/2076444.2076448 (finding "several flaws" in the "design of authentication dialogs for third-party apps" on Facebook and "no way for users to limit the apps' information access or publishing abilities during the installation process"); *see also* - Na Wang, *Third-party Applications' Data Practices on Facebook*, 2012 CHI Extended Abstracts Human Factors in Computing Sys. 1399 1404, https://dl.acm.org/doi/10.1145/2212776.2212462 (analyzing "the types and amount of information that can be accessed by apps on Facebook" and finding that because "the harvested user data are maintained on the servers of the developers, a number of privacy and security risks remain of high importance"); Md Sazzadur Rahman et al., *FRAppE: Detecting Malicious Facebook Applications*, 2012 Proc. 8th Int'l Conf. Emerging Networking Experiments & Techs. 313, 314 https://dl.acm.org/doi/abs/10.1145/2413176.2413213 (analyzing 111,000 third-party Facebook apps and finding that 13% were "malicious," of which 60% "endanger more than 100K users each by convincing them to follow the links on the posts made by these apps" and 40% "have over 1,000 monthly active users each"); Manuel Egele et al., *PoX: Protecting Users from Malicious Facebook Applications*, 35 Comput. Commc'ns 1507, 1509 https://www.sciencedirect.com/science/article/pii/S0140366412001417 (finding that "the current privacy controls regarding third-party Facebook applications are limited at best" because "the user has to either grant an application full access rights to all her profile information, or she cannot use the application at all").

on their public posts, concluding that "it is possible to use learning algorithms on released data to predict private information," and recommending potential solutions.[23]

15. Likewise, independent research has shed light on disinformation and misinformation online. For example, researchers at Texas Tech University conducted a longitudinal study of beliefs about COVID-19 vaccines, concluding that "misinformation exposure, misperceptions, and attitudes toward COVID-19 vaccines reinforced themselves over time."[24] Researchers at Texas A&M conducted the first large-scale effort to measure the prevalence of image-based misinformation on Facebook, revealing that 23% of political images contained misinformation and that such misinformation was unequally distributed across partisan lines.[25] And researchers at New York University have conducted numerous studies on the spread of disinformation through advertisements on Facebook's platform, finding, among other things, that political groups had evaded Facebook's prohibition on false political advertising in the lead-up to the 2020 election,[26] and that "news publishers known for putting out misinformation got six times the amount of likes, shares, and interactions on the platform as did trustworthy news sources."[27]

---

[23] Raymond Heatherly et al., *Preventing Private Information Inference Attacks on Social Networks*, 25 IEEE Transactions Knowledge & Data Eng'g 1849 (2013), https://ieeexplore.ieee.org/document/6226400.

[24] Shan Xu, Ioana A. Coman, Masahiro Yamamoto & Christina Jimenez Najera (2023), *Exposure Effects or Confirmation Bias? Examining Reciprocal Dynamics of Misinformation, Misperceptions, and Attitudes Toward COVID-19 Vaccines, Health Communication*, 38:10, 2210–2220, https://www.tandfonline.com/doi/abs/10.1080/10410236.2022.2059802.

[25] Yunkang Yang et al., *Visual Misinformation on Facebook*, Journal of Communication, Volume 73, Issue 4, August 2023, Pages 316–328, https://doi.org/10.1093/joc/jqac051.

[26] Jeff Horwitz, *Political Groups Elude Facebook's Election Controls, Repost False Ads*, Wall St. J., Nov. 1, 2020, https://www.wsj.com/articles/political-groups-elude-facebooks-election-controls-repost-false-ads-11604268856.

[27] Elizabeth Dwoskin, *Misinformation on Facebook Got Six Times More Clicks than Factual News During the 2020 Election, Study Says*, Wash. Post, Sept. 4, 202, https://www.washingtonpost.com/technology/2021/09/03/facebook-misinformation-nyu-study/.

16. Independent research is also crucial to informing public debate about any new regulation of social media. Legislators across the political spectrum, and legislatures around the world, have proposed dozens of bills to address the problems they perceive with the social media platforms. But which of those problems are real, and what measures might mitigate them, are questions that can't be adequately answered without robust, independent research.

17. Independent research is also important to directly informing the policies and practices of the tech companies. Tech companies often respond to research findings, or the public pressure generated by those findings, by adopting new policies or practices to mitigate harms that researchers have exposed. In 2021, for example, Instagram provided its users with the option to hide the number of likes on their posts, in response to research suggesting that status-seeking negatively impacted users' mental health.[28] And in 2020, Twitter began prompting users to read links before sharing them, in apparent response to 2016 research showing that, nearly 60% of the time, users shared links without actually having visited them.[29]

The importance of independent technology research about TikTok

18. Independent research relating to TikTok is particularly urgent. Despite the platform's meteoric rise in popularity, its influence on public discourse, politics, culture, teen behavior, mental health, and much more is poorly understood. Independent research into TikTok is also critical to evaluating some of the risks that U.S. government officials have highlighted. The question of whether the Chinese government is using TikTok to disseminate disinformation would be very difficult to answer without independent research into the platform's engineering,

[28] Casey Newton, *What Instagram Really Learned from Hiding Like Counts*, The Verge, May 27, 2021, https://www.theverge.com/2021/5/27/22456206/instagram-hiding-likes-experiment-results-platformer.

[29] Alex Hern, *Twitter Aims to Limit People Sharing Articles They Have Not Read*, Guardian, June 11, 2020, https://www.theguardian.com/technology/2020/jun/11/twitter-aims-to-limit-people-sharing-articles-they-have-not-read.

operation, and content. Likewise, independent research into TikTok's data practices is important to understanding what data TikTok collects, how the data is used, and how the data is shared.

19. Part of the reason that research into TikTok is so important is that the platform is distinctive in many ways. According to one study that compared TikTok to YouTube, "a higher percentage of TikTok users upload videos, TikTok view counts are more dominated by virality, and viewership of videos [is] less dependent on a given accounts' number of followers/subscribers."[30] Other researchers attribute the success of the platform to its unique design rather than any distinguishing use of recommendation algorithms.[31] And yet other researchers have shown that the short-form nature of videos on TikTok makes the app among the most popular.[32]

20. What we know so far about how TikTok operates and how it is influencing society comes in significant part from independent research about the platform. Computer scientists at the University of Minnesota researched the effect of TikTok's algorithm on the mental health of TikTok users.[33] The overall findings of the study indicated that while the social media platform promotes mental health discourse and establishes a sense of community among its users, it can also have a negative impact on mental health.[34] Two professors at Baylor University also recently

---

[30] Benjamin Guinaudeau, Kevin Munger, Fabio Votta (2022). *Fifteen seconds of fame: TikTok and the supply side of social video*, Computational Communication Research, 4(2), 463–485, https://doi.org/10.5117/ccr2022.2.004.guin.

[31] Arvind Narayanan, *TikTok's Secret Sauce*, Knight First Amendment Institute at Columbia University, Dec. 15, 2022, https://knightcolumbia.org/blog/tiktoks-secret-sauce.

[32] Yao Qin, Bahiyah Omar & Alessandro Musetti (2022), *The addiction behavior of short-form video app TikTok: The information quality and system quality perspective,* Frontiers in Psychology, 13, 932805, https://doi.org/10.3389/fpsyg.2022.932805.

[33] Allen Henry, *University of Minnesota Study Reveals Tiktok's Negative Impact On Mental Health*, CBS News Minn., Apr. 20, 2023, https://www.cbsnews.com/minnesota/news/university-of-minnesota-study-reveals-tiktoks-negative-impact-on-mental-health/.

[34] Ashlee Milton, Leah Ajmani, Michael Ann DeVito & Stevie Chancellor (2023), *"I See Me Here": Mental Health Content, Community, and Algorithmic Curation on TikTok*, In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23), April 23–28, 2023, Hamburg, Germany, ACM, New York, NY, https://doi.org/10.1145/3544548.3581489.

studied the correlation between psychological well-being and TikTok use and found that the app "can be a useful tool for connecting with others" but also "detrimental to well-being."[35] A professor at Curtin University led a study demonstrating TikTok's influence on the rising use of e-cigarettes by teenagers.[36] (TikTok recently responded to research raising concerns regarding the app's alluring nature and impact on wellbeing by launching new tools[37] that help to limit screen time and by adding a new mental health awareness hub that connects users with wellness advocates and organizations that provide mental health resources.[38])

21. Independent research has, in particular, helped to illuminate TikTok's data collection practices and the prevalence of disinformation on the platform. In March 2021, researchers at the University of Toronto published the first deep dive into TikTok's data collection, privacy, and content moderation practices, comparing TikTok to its Chinese market counterpart, Douyin.[39] The researchers emphasized the limitations on their research and the many questions they had been unable to answer, and subsequent researchers have continued to explore these topics. A 2023 study by University of Regina researchers found that "debunking" videos were moderately

[35] Kelly Craine, *Baylor Researchers Explore Effect of Instagram, TikTok on Psychological Well-Being*, Baylor Univ., May 3, 2023, https://news.web.baylor.edu/news/story/2023/baylor-researchers-explore-effect-instagram-tiktok-psychological-well-being.

[36] Daryl Austin, *TikTok Sways Teens to Take Up Vaping, Study Finds*, Forbes, May 16, 2023, https://www.forbes.com/sites/darylaustin/2023/05/16/teens-on-tiktok-are-being-influenced-to-take-up-vaping-study-finds/.

[37] Sarah Perez, *Amid Growing Concerns Around App Addiction, Tiktok Rolls Out More Screen Tools*, TechCrunch, June 9, 2022, https://techcrunch.com/2022/06/09/amid-growing-concerns-around-addiction-tiktok-rolls-out-more-screen-tools/.

[38] Aisha Malik, *Tiktok Adds a New Mental Health Awareness Hub to Provide Users Access to Resources*, TechCrunch, May 15, 2023, https://techcrunch.com/2023/05/15/tiktok-new-mental-health-awareness-hub-access-resources/.

[39] Pellaeon Lin, *TikTok vs Douyin: A Security and Privacy Analysis, Citizen Lab* (March 22, 2021), https://tspace.library.utoronto.ca/bitstream/1807/123974/1/Report%23137--TikTok.pdf.

successful in helping TikTok users distinguish between true and false videos.[40] Another study by researchers at the University of Arizona College of Medicine investigated the prevalence of misinformation among TikTok videos related to medical issues,[41] while researchers at the University of Houston have analyzed the prevalence of inaccurate sex education content on the platform.[42]

22. Independent researchers have also played a key role in debate about potential changes and policy responses to TikTok. After TikTok recently announced a new research API, researchers offered feedback about its limitations and the ways that it could improve.[43] Independent researchers also weighed in on whether TikTok's new screen-time alert feature would be an effective response to concerns about overuse of the platform.[44]

Texas' TikTok ban burdens the Coalition and its members

23. Texas's TikTok ban has imposed significant burdens on the ability of public-university academics to research and teach about TikTok.

24. Most significantly, the ban seriously impedes research about TikTok. The ban forecloses researchers at public universities in Texas from conducting research on TikTok using state-owned or state-issued devices, state-operated networks, or personal devices that are also used

[40] Puneet Bhargava, Katie MacDonald, Christie Newton, Hause Lin & Gordon Pennycook (2023), *How effective are TikTok misinformation debunking videos?*, Harvard Kennedy School Misinformation Review, https://doi.org/10.37016/mr-2020-114.

[41] Cara Murez, *Need Accurate Info on Liver Disease? Don't Head to TikTok*, U.S. News & World Report, May 9, 2023, https://www.usnews.com/news/health-news/articles/2023-05-09/need-accurate-info-on-liver-disease-dont-head-to-tiktok.

[42] *TikTok Content Highlights Flaws in Sexual Education According to New Paper*, Univ. of Houston Law Ctr., Dec. 22, 2021, https://www.law.uh.edu/news/fall2021/1222TikTok.asp.

[43] Megan A. Brown, *The Problem with TikTok's New Researcher API Is Not TikTok*, Tech Policy Press, Mar. 1, 2023, https://techpolicy.press/the-problem-with-tiktoks-new-researcher-api-is-not-tiktok/.

[44] Ethan Porter, *Parents, BYU Professor React to Tiktok Screen Time Limit*, The Daily Universe, Mar. 29, 2023, https://universe.byu.edu/2023/03/29/parents-byu-professor-react-to-new-tiktok-screen-time-limit/.

to access university email or services. The ban forecloses even research directed at better understanding the concerns with TikTok that motivated the ban—namely, concerns about data collection and the spread of disinformation. As a result, the ban has impeded—and in some cases shut down—research by public-university academics that relies on access to TikTok. In this way, the ban subverts the academic freedom of public university faculty to decide for themselves what subjects to research.

25. The ban also seriously impedes teaching about TikTok or teaching that makes use of TikTok. Professors at public universities in Texas who wish to teach about TikTok, or who wish to rely on TikTok in teaching about other subjects, cannot use state devices or networks to do so. They cannot, for example, use a device connected to their university network to provide an in-class demonstration of TikTok's algorithmic recommendations, or to exhibit in-class examples of the use of TikTok by elected officials or candidates for office. Nor can public-university professors easily review or grade student work that relies on TikTok. For example, if a computer science doctoral student wished to conduct a rigorous study of TikTok's privacy practices, or of the risks of Chinese government manipulation of TikTok's recommendation algorithms, their supervisor could not easily vet the resulting paper, because the supervisor would be foreclosed from using state devices or networks to access TikTok, which may be necessary to properly assess the student's work.

26. The burdens that Texas's TikTok ban imposes on public university faculty also fall upon public university students. Those students are denied classroom instruction in, or that makes use of, one of the most popular social media platforms of the day. They are also deterred—if not effectively prevented—from studying TikTok as part of their academic pursuits, because their supervisors may be unable to meaningfully review or grade their work.

27. Texas's TikTok ban harms the Coalition's members in at least two ways.

28. First, there are Coalition members at multiple public universities in Texas whose research and teaching are directly burdened by the ban. One of those members—Professor Jacqueline Vickery—has separately submitted a declaration explaining that the ban has affected her work in multiple ways. It has foreclosed her research on TikTok. It has made it very difficult for Professor Vickery even to review other scholarship relating to TikTok, because that scholarship often relies on TikTok videos that must be accessed through the platform. And it has compromised her teaching: Professor Vickery can no longer use TikTok in class to illustrate the concepts she is teaching or to demonstrate the operation of the platform's recommendation algorithm, search function, or design features; she can no longer assign students in-class work that requires them to access TikTok; and she cannot easily grade the work of students who cite or discuss TikTok videos in their assignments.

29. Second, Texas's TikTok ban burdens Coalition members outside of public universities in Texas who would otherwise benefit from the research of public university researchers subject to the ban. Research is a collective and collaborative enterprise; researchers who study TikTok or other social media platforms generally stay abreast of the research in their field to make sure they're aware of and account for the latest science relevant to their own work, and to learn from and hopefully improve upon the methodologies used by others. They also participate in the process of peer review, which furthers collective understanding and maintains the high standards to which scientific research is subject. As the sociologist Robert Merton famously observed nearly eighty years ago, science is a communal public good—each contribution draws from prior work and strengthens collective knowledge.[45] Texas's TikTok ban, however,

[45] Robert K. Merton, *A Note on Science and Democracy*, 1 J. Legal & Pol. Socio. 115 (1942).

deprives Coalition members outside of public universities in Texas of the scholarship and insights that would otherwise be produced by public-university researchers in the state.

30. I verify under penalty of perjury under the laws of the United States that the foregoing is true and correct.



Date: September 5, 2023