

THE DIGITIZATION OF DICTATORSHIP: EARLY LESSONS FROM A GROWING LITERATURE

New information technologies are having a wide and uncertain range of effects on authoritarian regimes and their societal opponents. This essay combs recent academic literature to consider how social media and surveillance technology shape both opposition mobilization and authoritarian control in cases such as China, Iran, Russia, and Singapore. Four distinct digitization dynamics fall under our microscope: what we call Liberation Technology, Digitized Transparency, Digitized Diversion, and Big Brother. We call for more scholarly and policy awareness of how authoritarian regimes' underlying state capacity shapes these political outcomes of digitization. We also highlight how rising challenges to personal and collective freedoms posed by emergent information technologies affect contemporary democracies as well as dictatorships.

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Politics inevitably changes whenever the technologies through which actors engage in politics change. But does this mean that the emergence of new information technologies is creating an entirely new world for dictatorship and democratization? What are digitization’s most important effects on dictatorship?

We take a preliminary stab at these questions by surveying recent academic literature on dictatorship and digitization. We begin by dividing new information technologies into 1) social media (SM) and 2) surveillance technology (ST).¹ The most important effects of these new technologies on authoritarian performance and durability can be summarized as 1) mobilization mechanisms (MM) and 2) authoritarian advantages (AA).

This yields the following 2x2 table that organizes the analysis to follow.

	Mobilization Mechanisms (MM)	Authoritarian Advantages (AA)
Social Media (SM)	<u>Liberation Technology</u>	<u>Digitized Diversion</u>
Surveillance Technology (ST)	<u>Digitized Transparency</u>	<u>Big Brother</u>

Unsurprisingly, the great bulk of research concentrates along the diagonal from SM/MM, where social media serves as a “liberation technology” for anti-authoritarian protestors, toward ST/AA, where new surveillance technologies give authoritarian regimes powers resembling the infamous “Big Brother” of Orwell’s *1984*. At the broadest level, therefore, one might begin by saying that social media offers new opportunities for democratic mobilization while surveillance technology provides new tools for authoritarian control.

Yet recent literature also shows that social media can also be turned to authoritarian advantage (SM-AA), especially through a logic of “digitized diversion”. By producing distraction and misinformation, authoritarian regimes prevent online disaffection from coalescing into collective action. To a lesser degree, the digitization of public services has also been recognized as an avenue through which government critics can apply increased pressure on their leaders, and force greater responsiveness and accountability on governments that cannot be removed by the ballot box.

¹ This is not to say that authoritarian regimes cannot or do not use social media to enhance their surveillance capacity, as discussed below. But clearly social media is not merely used for surveillance purposes, and most surveillance technologies have nothing to do with social media.

Insofar as such “digitized transparency” might help authoritarian regimes improve their governance, one might consider this an additional source of AA.

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Considering that both ST and SM can be converted into AA, this suggests that, as widely reported and suspected, new technologies provide very real authoritarian advantages. Indeed, the variety of ways in which authoritarian regimes can turn social media to their advantage – the SM/AA quadrant – is the most important general finding in the current academic literature.

At least three caveats are in order, however, when rushing to judgment on the overwhelmingly AA effects of ST: 1) ST effects on AA can be *overstated*, since authoritarian regimes require some underlying level of infrastructural power to deploy ST effectively; 2) ST can often be *defeated* by citizens in various creative ways, reducing AA in ways that are, by their very nature and design, difficult to foresee and imagine; and 3) ST is ultimately a feature of *states* (as well as *firms*) rather than regimes, meaning that citizens in democracies as well as dictatorships need to confront the potential for control inherent in new surveillance technologies. The challenges of maintaining freedom amidst the development of new technologies are in important ways *shared* across democracies and dictatorships, making them fit rather uneasily under the standard Cold-War-style framework in which democracy and dictatorship go head-to-head as rivals.

1: Liberation Technology

Social media does not always facilitate mobilization; but when it does, it does so in remarkably powerful ways. Information and communication technologies threaten authoritarian regimes by loosening the regime’s monopoly over traditional forms of broadcast media. This increases domestic information flows and tightens information linkages with supportive democratic actors overseas. It also provides quick peer-to-peer communication, which enables the coordination of mass mobilization.²

For example, when opposition elites used Facebook and Twitter to disseminate

² Espen Geelmuyden Rød and Nils B Weidmann, “Empowering Activists or Autocrats? The Internet in Authoritarian Regimes,” *Journal of Peace Research*, Vol. 52, No. 3 (2015), p. 338–51.

information about electoral fraud in the 2011 Russian parliamentary elections, perceptions about electoral fraud were in fact heightened *especially* among Putin supporters.³ A subsequent study on Russia showed that the effects of Western social media on perceptions of electoral fraud were mediated through exposure to political blogs.⁴ Singapore's ruling People's Action Party had to deal with their lowest vote share since the country's independence in the 2011 General Elections. During that election, social media similarly provided opposition party members an outlet to mobilize their supporters and an alternative to state-controlled mainstream media outlets.⁵ Moreover, through social media and blogs, opinion leaders were also able to shape public discourse against the ruling party. Compared to democratic leaders, authoritarian leaders are less likely to use Twitter in effective and sophisticated ways, preferring unidirectional communications to the kind of multidirectional communication social media facilitates.⁶

However, the optimism that social media would weaken authoritarian regimes in a systematic way has not been borne out. This is simply because social media can be blocked with classic authoritarian repression. Even where social media initially gave regime opponents the advantage of surprise, authoritarian leaders quickly learn how to neutralize threats posed by social media.

Shortly after the 2011 Duma elections, by linking the internet to American acts of sabotage, Putin's government introduced legal restrictions on internet use and actively persecuted offenders. "The so-called Yarovaya Law adopted in 2016 required telephone and internet providers to store phone calls and text messages, and directs messaging services Facebook and others to provide decryption keys to the secret police (FSB)."⁷ In this sense, the internet can serve as an extra site for repression of anti-regime communication: for every opposition action online, there is a potential regime reaction. Consequently, unlike the massive demonstrations surrounding the 2011 elections, the 2016 Duma election was met with little opposition and the results were predictable, with Putin's party winning a legislative supermajority.

³ Ora John Reuter and David Szakonyi, "Online Social Media and Political Awareness in Authoritarian Regimes," *British Journal of Political Science*; Cambridge, Vol. 45, No. 1 (January 2015), p. 29–51.

⁴ Jason Gainous, Kevin M. Wagner, and Charles E. Ziegler, "Digital Media and Political Opposition in Authoritarian Systems: Russia's 2011 and 2016 Duma Elections," *Democratization*, Vol. 25, No. 2 (February 2018), p. 209–26.

⁵ Weiyu Zhang, "Social Media and Elections in Singapore: Comparing 2011 and 2015," *Chinese Journal of Communication*, Vol. 9, No. 4 (October 2016), p. 367–84.

⁶ Andrew Bulovsky, "Authoritarian Communication on Social Media: The Relationship between Democracy and Leaders' Digital Communicative Practices," *International Communication Gazette*, Vol. 81, No. 1 (February 2019), p. 20–45.

⁷ Gainous, Wagner, and Ziegler (2015), p., 220.

While democratic protesters lose their mobilization advantage with the erosion of the element of surprise, authoritarian incumbents lose much of their advantage when they fail to be preemptive. By responding with visible repression during focal events, autocrats can generate outrage and fuel collective mobilization.

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The example of Iran illustrates how authoritarian control of social media is most efficient when it is preemptive rather than reactive. Prior to Iran’s 2009 presidential elections, supporters of reformist candidates used social media to mobilize voters. Students set up blogs, estimated to number over 30,000 opposing the Ahmadinejad government.⁸ Opposition members used social networking sites to launch political campaigns. Possibly overwhelmed by the momentum of online anti-government sentiment, the Ahmadinejad government cut off text messaging services and the internet the night before the election. This action was seen as a sign of a fraudulent election, and “students, of whom more than 70 percent voted against President Ahmadinejad, joined other social groups to question the election’s results and later question the entire political regime.”⁹ Demonstrations broke out in the university campuses across the country. The government responded by brutally suppressing students and repressing online activism. The regime paid at least some small price for this repression when the more moderate candidate won by a landslide in the 2013 presidential elections.

2: Big Brother

Social media and other forms of information communication technologies can aid authoritarian regimes in the surveillance of their subjects. Importantly, this capacity is formed with private firms. The regime in China “is working with social-media

⁸ Saeid Golkar, “Student Activism, Social Media, and Authoritarian Rule in Iran,” in Irving Epstein (ed.), *The Whole World Is Texting: Youth Protest in the Information Age* (Rotterdam: SensePublishers, 2015), p. 61–79.

⁹ Golkar (2015), 70.

conglomerates to build an Orwellian-sounding Social Credit System that will rank citizens' and businesses' reputations based on their purchases, movements, and public communications while using that ranking to restrict access to jobs, travel, and credit."¹⁰

The autocratic surveillance infrastructure is often buttressed by technology from corporations in the U.S. and other democracies. Indeed, firm-driven development of information technology and massive data collection makes it easier for an authoritarian regime to assimilate political surveillance and repression with its integration in the global economy. In its attempt to be allowed into China, Facebook "quietly developed software to suppress posts from appearing in people's news feeds in specific geographic credit."¹¹ Google, despite voluntarily withdrawing from the country in 2010, launched Project Dragonfly, "an Android app apparently designed to enable Google's return to China by satisfying official demands, including the blocking of search results and even search terms."¹² This turns on its head the notion that exposure to global markets and economic modernization lead to a weakening of authoritarian regimes.

Authoritarian regimes have paired online surveillance with offline repression to extend their repressive reach to political exiles. Michaelsen points out that, historically, voice after the exit has proven both possible and powerful.¹³ He uses the dramatic example of Ayatollah Khomeini, whose political proclamations after being exiled from Iran helped fuel the uprising against the Shah. With social media, it has become more difficult for political exiles to use voice after exit. This is because, for every single *point of communication* linking activists, activists become vulnerable to additional "*points of exposure.*" Mansoureh Shojaee, an activist who left Iran, received summonses at her Tehran address in response to her activities in Europe. She said, "This put me under a lot of pressure because my husband and my son were over there and my house was under bail."¹⁴ By monitoring political exiles through social media, the Iranian regime could respond with internal coercive pressure.

Social media has thus enabled the authoritarian state to expand the reach of its repressive apparatus beyond borders. It is within these states, however, where the effects are most powerful and precise. Chinese censors do not indiscriminately

¹⁰ Ronald J. Deibert, "The Road to Digital Unfreedom: Three Painful Truths about Social Media," *Journal of Democracy*, Vol. 30, No. 1 (January 2019), p. 35. no. 1 (9 January 2019).

¹¹ Mike Isaac, "Facebook Said to Create Censorship Tool to Get Back into China," *The New York Times* (22 November 2016), sec. Technology, <https://www.nytimes.com/2016/11/22/technology/facebook-censorship-tool-china.html>

¹² Xiao Qiang, "The Road to Digital Unfreedom: President Xi's Surveillance State," *Journal of Democracy*, Vol. 30, No. 1 (January 2019), p. 63.

¹³ Marcus Michaelsen, "Exit and Voice in a Digital Age: Iran's Exiled Activists and the Authoritarian State," *Globalizations*, Vol. 15, No. 2 (February 2018), p. 248–64.

¹⁴ Michaelsen (2018), 257–58.

expunge critical content.¹⁵ Instead, censors focus on posts with a collective action potential, especially during moments of mass mobilization. That said, the CCP does not target only content with the collective action potential. According to the leaked censorship documents, the CCP also suppresses the emergence of non-party thought leaders to maintain control of the online discourse space.¹⁶

The advantages that surveillance technology confers on authoritarian regimes become manifest when methods of monitoring outside of social media are considered. In 2015, China completed the video surveillance project Skynet, an “omnipresent, fully networked, always working and fully controllable” facial recognition system.¹⁷ In Anhui, 70,000 voice samples was collected from phone calls, with the objective of “automatically detecting particular voices”.¹⁸ Xinjiang authorities collect information from “wifi sniffers that gather identifying addresses from laptops and smartphones,” and “license plates and ID cards examined at checkpoints, as well as from health, banking, and legal records.”¹⁹ Algorithms “sift through reams of data looking for patterns that could signify threatening behavior.”²⁰ If this scale of data collection is merged with the social credit system described earlier, the CCP might become “the world’s first responsive tyranny, perhaps even a digital totalitarian behavior.”²¹

The intersection of artificial intelligence and the global economy enables the spread of surveillance tools, potentially contributing to the erosion of democratic norms. As part of its Belt and Road Initiative, China has exported AI surveillance technology such as facial recognition cameras to 54 non-democracies, ranging from Singapore to Zimbabwe.²² Even as China takes AI across borders, American firms facilitate the development of tools of censorship and surveillance. Microsoft has collaborated with the military university; National University of Defense Technology in at least three projects related to the use of AI for facial recognition and environmental mapping.²³

¹⁵ Gary King, Jennifer Pan, and Margaret E. Roberts, “How Censorship in China Allows Government Criticism but Silences Collective Expression,” *American Political Science Review*, Vol. 107, No. 2 (May 2013), p. 326–43.

¹⁶ Mary Gallagher and Blake Miller, “Who Not What: The Logic of China’s Information Control Strategy,” *The China Quarterly* (June 2021), p. 1–26.

¹⁷ Qiang (2019), 57.

¹⁸ Qiang (2019), 57.

¹⁹ Steven Feldstein, “The Road to Digital Unfreedom: How Artificial Intelligence Is Reshaping Repression,” *Journal of Democracy*, Vol. 30, No. 1 (January 2019), p. 45.

²⁰ Feldstein (2019), 45.

²¹ Qiang (2019), 64.

²² Steven Feldstein, “How Artificial Intelligence Systems Could Threaten Democracy,” *The Conversation* (22 April 2019), https://theconversation.com/how-artificial-intelligence-systems-could-threaten-democracy-109698?utm_source=twitter&utm_medium=twitterbutton

²³ Adam Candeb, “Will Microsoft’s New Partnership with Open AI Benefit China?,” *Forbes* (1 August 2019), <https://www.forbes.com/sites/washingtonbytes/2019/08/01/will-microsofts-new-partnership-with-open-ai-benefit-china/>

If social media pose a threat to authoritarian regimes through multi-directional communication, this threat arguably vanishes with artificial intelligence. AI not only restores the unidirectional flow of information from subjects to the authoritarian state but also makes legible amounts of information that in its overwhelming quantity have been historically useless. Artificial intelligence may in fact reverse an advantage democracies have had held over dictatorships: “If you disregard all privacy concerns and concentrate all the information relating to a billion people in one database, you’ll wind up with much better algorithms than if you respect individual privacy and have in your database only partial information on a million people. An authoritarian government that orders all its citizens to have their DNA sequenced and to share their medical data with some central authority would gain an immense advantage in genetics and medical research over societies in which medical data are strictly private.”²⁴

However, such dystopian interpretations of ST-AA still lack systematic empirical support. The ability to compel the collection of everyday information and to selectively censor online content depends on infrastructural capacity. It is unthinkable that high-tech illiberalism will ever look the same in Pakistan or the Philippines as in China, much less Singapore. State capacity is an important variable which current literature largely neglects. Furthermore, whether new oppositional techniques to undermine and deflect ST, and even turn information technologies against authoritarian regimes in ways that puncture their opacity and either undermine their control or improve their responsiveness through public feedback (see section 4 below), remains very much an open question.

3: Digitized Diversion

Although any authoritarian regime might use classic repressive and censoring techniques to counter internet-based mobilization, only some have the capacity to complement these “hard” strategies of censorship and coercion with “soft” strategies of distraction and discourse manipulation. China, in particular, seems to have learned how to preemptively neutralize threats from social media by striking this balance.

The Chinese government engages in massive astroturfing, with an estimated 448 million engineered posts per year.²⁵ However, contrary to the popular belief that these posts were engineered to defend the government, there was not a single post

²⁴ Yuval Noah Harari, “Why Technology Favors Tyranny,” *The Atlantic* (October 2018), <https://www.theatlantic.com/magazine/archive/2018/10/yuval-noah-harari-technology-tyranny/568330/>

²⁵ Gary King, Jennifer Pan, and Margaret E. Roberts, “How the Chinese Government Fabricates Social Media Posts for Strategic Distraction, Not Engaged Argument”, *American Political Science Review*, Vol. 111, No. 3 (August 2017), p. 484–501.

that taunted foreign entities, criticized government opponents, or defended government figures. Instead, these posts mainly comprise cheerleading (51%), which includes “expressions of patriotism, encouragement and motivation”; nonargumentative praise (23%); and factual reporting (20%).²⁶ The volume and frequency of these posts suggest that these operations were highly coordinated from the top, with bursts centered on events with collective action potential or major national holidays that have been historic focal points for protest. As such, these posts seem to disrupt discussions with collective action potential through distraction. Distraction thus complements censorship, while generating less risk of backlash.

It is vital to distinguish this kind of distraction and diversion from pure propaganda, as well as from censorship. Perhaps the most remarkable feature of the CCP’s technological strategy is how it avoids blatant propaganda and favors diversionary online government speech. As long as netizens are discussing literally *anything* other than the failings of the Chinese government and, especially, plans to collectively challenge it, social media seemingly generates authoritarian advantages for China’s regime.

The more general point is that a hallmark of effective authoritarianism is to clutter and complicate oppositional narratives. Much like in China, in Singapore, the ruling People’s Action Party (PAP) has successfully neutralized threats originating from social media by providing competing online narratives.²⁷ In the lead up to the 2016 General Election, the ruling party featured a telegenic female candidate in a widely circulated YouTube video. Supporters of the PAP were markedly more active on social media, contributing to a shift in discourse from grouses about the incumbent party to the purported inability of opposition parties to form a functioning government. The ruling party complemented online engagement with offline consultations with the public and prominent social media opinion leaders, sapping impetus from online efforts to inspire disaffection against the government.

In an especially ambitious study of how social media can be turned to authoritarian advantages that draws on Russia and the Middle East as well as China, Gunitsky (2015) argues that online communications can give authoritarian messaging credibility and legitimacy that old-school propaganda lacks.²⁸ “And because social media is inherently decentralized, interactive, and non-hierarchical, pro-regime discourse that takes place online can more easily avoid the appearance of artifice. In creating opportunities for regimes to connect with their supporters, it also presents a mechanism

²⁶ King, Pan, and Roberts (2017), 486, 491.

²⁷ Zhang (2016).

²⁸ Seva Gunitsky, “Corrupting the Cyber-Commons: Social Media as a Tool of Autocratic Stability,” *Perspectives on Politics*, Vol. 13, No. 1 (March 2015), p. 42–54.

for controlling the boundaries of acceptable online debate and does so in a way that doesn't merely block dissent but manipulates it to strengthen autocratic resilience."²⁹

4: Digitized Transparency

Surveillance is not only deployed by authoritarian regimes against their opponents in society. It can also be used by leaders to monitor performance within an authoritarian regime's bureaucracy and, in some instances, by citizens to report on poor government performance. This has more double-edged implications than a pure AA narrative would imply. Social media confers authoritarian advantages to the extent that digitized transparency makes a dictatorship more *effective* at governing; but if it simply makes the regime more *responsive* to public concerns, new information technologies might help undermine dictatorship, or at least soften it over time.

We have already discussed how authoritarian regimes have used censorship and distraction to preemptively neutralize threats originating from social media, as well as diversion tactics to manage online anti-regime mobilization. But online communications also enhance *information exchange* in ways that complicate any pure understanding of AA and MM effects.

Consider the seemingly puzzling cross-national finding that high levels of internet penetration correlate with increasing press censorship in authoritarian regimes.³⁰ Dictatorships seem both to value the existence of the internet and to cherish their ability to censor it when necessary. One major reason may be because social media helps authoritarian leaders overcome principal-agent problems by channeling information about local officials to central governments. In an analysis of 202 million posts from Sina Weibo, a popular Chinese microblogging platform, between 2009 and 2013, Qin, Strömberg, and Wu found that, even after presumable censorship, a large number of posts on sensitive collective action events remained.³¹ They found that it is relatively easy to predict demonstrations and strike actions from those remaining microblog posts. Posts on corruption even predict which top officials would be charged with corruption a year later, and these posts do not appear to be planted by the central government.

Putting these findings together, the authors conclude that the central government uses social media to identify and correct misbehavior of local officials. People who post about such behavior seem to understand that the central government is using social media for this purpose as the authors also frequently find explicit appeals for

²⁹ Gunitzky (2015), 47.

³⁰ Rød and Weidmann (2015).

³¹ Bei Qin, David Strömberg, and Yanhui Wu, "Why Does China Allow Freer Social Media? Protests versus Surveillance and Propaganda," *The Journal of Economic Perspectives*, Vol. 31, No. 1 (2017), p. 117–40.

central government action. These findings help explain why King, Pan, and Roberts found censorship and disruption to online discourses related to collective action events but not critical posts.³² Online avenues for criticism thwarts anti-regime collective action.

There are at least two potential challenges, however. The first is that for increased transparency and information exchange via online technology to generate authoritarian advantage, there almost certainly must exist state capacity to calibrate rule in reaction to signals from a society that most dictatorships lack. Second, and relatedly, the relationship between authoritarian concessions and citizen protest is one of the most complicated and uncertain in the social sciences. Responding to public grievances may calm society or it may inspire the public to see an opening and demand even more.

Whether the quasi-democratic functions of social media in authoritarian regimes ultimately lead to more or less democracy is thus an enormous open question. Indeed, it is very likely the case that authoritarian regimes which already exhibit impressive capacity for control offline might prove able to manage information revelation, thereby converting concessions into quiescence and authoritarian durability. Weaker regimes that fail to calibrate the openness of the online system with offline tensions in society are likely the types that, historically, have seen concessions turn into popular revolution rather than legitimation.

Conclusion

The effects of information technology on dictatorships and their opponents remain radically uncertain. What is certain is that these effects are diverse and multidirectional. New technologies mean new terrains for authoritarian regimes and their critics to wage their political battles. Future research will surely benefit from careful attention to the power resources that dictators and their opponents bring with them to these emerging, rapidly shifting battlefields. And citizens in democracies are surely well-advised to recognize that powerful states and private firms can deploy information technologies in ways that restrict human freedom beyond the world of authoritarian regimes as well. What may be emerging is not two worlds of digitized regimes – one free and democratic, the other controlled and authoritarian – but one shared world of advancing information technology where freedoms remain tenuous for us all.

³² King, Pan, and Roberts (2013; 2017),.