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Claremont McKenna College

Liberation Technology in the Age of Digital Authoritarianism:  
Examining the Potential for Digital Technology to Promote Democratic Practice

submitted to  
Professor Jennifer Taw

by  
Skyler H. Sallick

for  
Senior Thesis  
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## INTRODUCTION

The emergence of new technologies within society is often met with a profound sense of optimism. It is never long until the initial optimism wears off, only to be replaced with pessimism. Throughout history – from the printing press to the radio - new forms of mass communication have been praised for their “unprecedented” potential to promote democratic governance...each inevitably fails to deliver on that promise. In the early 2000s, the Web 2.0 Revolution provided techno-optimists with a new set of technologies upon which to place their belief in the greater good of humanity. In the decade since the Arab Spring, it has become increasingly clear that Web 2.0 technologies do not hold the kind of democratic potential that warrants blind faith. However, they do possess something distinctly different from previous innovations in mass communication that enable those of us with optimistic tendencies to question whether this time will be different.

Whereas Web 1.0 was one-dimensional in that users could post, share, and consume information without meaningful interactive capabilities, Web 2.0 is almost entirely categorized by its participatory nature. The specifics of which technologies and platforms are considered part of Web 2.0 are largely irrelevant. What is important are the values and norms ushered in by the Web 2.0 Revolution: participation, user-generated or crowdsourced content, and interactive/multi-way communication.<sup>1</sup> All of which seems to suggest an inherent bias toward democratic ideals.

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1. Ashraf Darwish and Kamaljit I. Lakhtaria, “The Impact of the New Web 2.0 Technologies in Communication, Development, and Revolutions of Societies,” *Journal of Advances in Information Technology* vol. 2:4 (2011): 204.

The unfortunate reality is that 2021 marks the eleventh consecutive year of global democratic backsliding.<sup>2</sup> This is in part due to the ways in which digital technologies have made it easier and more efficient for authoritarian governments to exercise control over their populations. At the same time, it is also true that digital technologies currently possess the potential to promote democratic practice in ways never before possible. It is here that a dichotomy has emerged between the liberating potential of digital technology and its repressive affordances.

Ultimately, scholars have begun to ask: “Do the Internet, social media, mobile phones, and their exploding array of applications empower citizens to mobilize for freedom and accountability, or do these technologies empower autocracies to better monitor and effectively neutralize pro-democracy movements and dissidents?”<sup>3</sup> A wide range of work has been published in the last decade exploring the intersection of the dichotomy. This thesis does not seek to add to that body of work. Rather, this thesis asks more specifically if it is possible for digital technologies to promote democratic practices under non-democratic regimes.

Through a review of the current literature, it found that a singular technology can at once be liberatory while simultaneously serving to counter its own liberating potential. As a result, repressive regimes have been able to successfully push back against mass mobilization and quell efforts to bring greater transparency and accountability to systems

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2. Sarah Repucci and Amy Slipowitz, “Freedom in the World 2021,” Freedom House (2021): 2.

3. Larry Diamond, “Introduction,” In *Liberation Technology: Social Media and the Struggle for Democracy*, edited by Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012): x.

of governance. The case of Egypt is used to explore mass mobilization and the right to freedom of expression before, during, and after the Egyptian Revolution through the lens of often flawed digital technology. Subsequently, the case of Tanzania is used to examine the potential for digital crowdsourcing platforms to provide accountability and transparency during elections in the face of increasing legal and technological limitations. These case studies enable the identification of a series of limiting factors contributing to the narrowing potential for digital technologies in democratic advocacy. Importantly, these case studies also allow for the identification of strategic opportunities for the international community, civil society, local activists, private sector companies, technologists, and citizens to engage in the promotion of digital rights that enable digital technologies to promote democratic practices under non-democratic regimes.

Noam Chomsky said: “Unless you believe that the future can be better, you are unlikely to step up and take responsibility for making it so.” That is the basis of this thesis. In an effort to reclaim agency in the global battle between digital democracy and digital authoritarianism, this thesis asks: What, if anything, can be done?

## CHAPTER 1: LITERATURE REVIEW

In the opening of *Blown to Bits: Life, Liberty, and the Pursuit of Happiness After the Digital Explosion*, authors Hal Abelson, Harry Lewis, and Ken Ledeen attest to how, “The digital explosion is changing the world as much as printing once did -- and some of the changes are catching us unaware, blowing to bits our assumptions about the way the world works...The explosion, and the social disruption that it will create, have barely begun.”<sup>4</sup> The digital explosion is just the most recent iteration of technological advances that entirely alter human civilization. In her book entitled *The Ethics of Innovation*, Sheila Jasanoff argues that the current conceptualization of technology “as a means to a preordained end” does not allow for an exploration of the complex relationship that human civilizations have forged with technological instruments.<sup>5</sup> From the invention of fire to the invention of Facebook, theories of technology lay at the heart of what it means for society to create, adopt, and make use of new inventions.

Once integrated into society, technologies possess a multitude of functions, effects, and meanings.<sup>6</sup> The sole function or intended “primary use” of a technology dreamed up by its inventor will not be the only use that society finds for the technology. Through his work at the intersection of democracy and technology, Richard Sclove lays the theoretical foundation through which the majority of this section’s argument rests. Sclove’s conception of technology is crucial to the basic foundation of this thesis in that it goes

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4. Hal Abelson, Ken Ledeen, and Harry Lewis, *Blown to Bits: Your Life Liberty, and Happiness after the Digital Explosion* (Boston: Pearson, 2008), 3.

5. Sheila Jasanoff, *The Ethics of Invention: Technology and the Human Future* (New York: W.W. Norton, 2016), 211.

6. Richard Sclove, *Democracy and Technology* (New York: The Guilford Press, 1995), 20.



beyond the simple notion that technology is created for a primary use but rather that technologies exhibit secondary uses and secondary impacts. One singular technology can, and will, be used in many different ways for many different purposes.

In his revolutionary book *Democracy and Technology*, Richard Sclove presents the critical argument that technologies qualify as forms of “social structure.” Sclove suggests that technologies ultimately function within society in terms of their political and cultural implications, similarly to that of more traditional social structures such as family and religion.<sup>7</sup> Defining technologies in terms of social structures is useful for the purposes of this thesis in that, as Sclove contends, “social structures are also ambiguous in that while they can restrict opportunities in some respects, they can - when appropriately designed- enhance them in others.”<sup>8</sup>

The impact that Sclove’s argument has on the foundation of this thesis is twofold. Firstly, if one accepts the assertion that technologies possess primary *and* secondary uses, it can be implied that society, rather than the inventor, creates the conditions for such secondary uses. Secondly, upon the adoption of Sclove’s suggestion that technologies, as social structures, accrue a multiplicity of potential impacts, this thesis proposes the notion that one singular technology can possess uses beyond those intended by its creator, and therefore one singular technology can impact society in more than one way. As such, technology’s impact on society is not black or white – neither liberatory nor repressive – and does not inherently enhance autocratic governance, nor does it inherently enhance democratic practices. Digital technologies can do both at the same time. Thus, it is

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7. Sclove, *Democracy and Technology*, 11.

8. Sclove, *Democracy and Technology*, 13.

important for society to better understand the ways in which technology can support autocracy and democratic practices. If the distinction can be understood, there is more opportunity to better support and invest in the areas where technology has the ability to promote democratic practices such as freedom of expression, political contestation, human rights, transparency, and accountability.

Critical to this argument is the claim that, although technologies impact society in a multitude of different ways, the structural impact that technologies have on society is inherently disparate and dependent on usage—by whom and for what ends.<sup>9</sup> Ultimately, this thesis will discuss certain technologies and not others reliant on the notion that some technologies have greater cultural and political impacts. For the purposes of this thesis, digital technologies will be seen as having greater cultural and political impacts than other forms of technology. While technologies such as the printing press have had monumental cultural and political impacts on society, the timely position of this thesis warrants a deeper exploration of digital technologies as we are only just beginning to understand the potential positive and negative impacts they possess within the scope of democratic governance. Sclove himself argues that “recognizing the many respects in which technologies contribute to defining who people are, what they can and cannot do, and how they understand themselves and their world should dispel the common myth that technologies are morally or politically neutral.”<sup>10</sup> Bernholz and Landemore offer a useful definition for digital technology that will aid in limiting the scope of technology explored in this thesis. Through specifically pinpointing the term digital technology to define a “set of information

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9. Sclove, *Democracy and Technology*, 27.

10. Sclove, *Democracy and Technology*, 17.

and communication technologies that make use of the networked electronic generation, processing, and storage of data,” Bernholz and Landemore provide a vehicle through which to narrow the scope of this thesis.<sup>11</sup>

An important question to ask is what, if anything, makes digital technologies different from other waves of technological innovation in human history? First and foremost, as Diebert and Rohozinsku articulate, the speed with which digital ICTs have spread around the world in a relatively short amount of time is previously unmatched in human history.<sup>12</sup> Whereas previous forms of mass communication such as newspapers, television, and radio have a history of government intervention and centralized control, digital ICTs are distinct in that they enable real-time multi-directional channels of communication on a large scale without a centralized authority.<sup>13</sup> In the consumption of information, digital ICTs shift citizens away from being passive recipients and toward a more participatory form of communication.<sup>14</sup> Joseph Siegle captured the importance of this new moment brought about by digital technologies:

For the first time, individuals even in remote areas are able to receive and communicate information in real time, usually via cell phones and SMS given their greater affordability, thereby connecting them to their compatriots and with the rest of the world. This is a major departure from previous eras. The ready access individuals now have to multiple opinions versus the dominant narrative that

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11. Lucy Bernholz, H el ene Landemore, and Rob Reich, *Digital Technology and Democratic Theory* (Chicago: University of Chicago Press, 2021), 7.

12. Ronald Deibert and Rafal Rohozinski, “Liberation vs. Control: The Future of Cyberspace,” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 18.

13. Kris Ruijgrok, “From the web to the streets: internet and protests under authoritarian regimes,” *Democratization* vol. 24:3 (2017), 501.

14. Larry Diamond, “Liberation Technology,” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 5.

governments have been able to maintain is changing state-society relations. Governments simply cannot control messages the way they have in the past. Instead, there are now “competing frames” of the state’s engagement with societal priorities.<sup>15</sup>

While Sclove provides a useful framework through which to position technology within the social and cultural spheres, Benjamin Barber provides a framework for the exploration of technology's impact on society. Barber argues that citizens must take very deliberate and conscious steps to consider the impact of technology-- that it is imperative to take action in its implementation and application, particularly with respect to democratic practices. Barber highlights what he refers to as the “Pangloss Scenario,” in which the impacts of technology are left to market forces. In this scenario, the impact of technology is governed by the market’s invisible hand, and it is believed that incentives of profit and consumer interest will lead technology to positive end goals.<sup>16</sup> Here, Barber suggests that democracy and democratic practices do not farewell. However, Barber is vocal about his belief that the use of market forces to dictate technology’s impact on society is the path of least resistance and that, given society’s current trajectory, this will likely end up steering technology’s social, cultural, and political impacts in the long run. Barber’s view provides ample grounds to suggest that society must take explicit action to promote the strengthening of democratic practices and that technology must be at the center of that solution as it will not do so left to its own devices.

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15. Joseph Siegle, “ICT and Accountability in Areas of Limited Statehood,” in *Bits and Atoms: Information and Communication Technology in Areas of Limited Statehood*, ed. Steven Livingston and Gregor Walter-Drop (London: Oxford University Press, 2014), 65.

16. Benjamin R. Barber, “Three Scenarios for the Future of Technology and Strong Democracy,” *Political Science Quarterly* vol. 113:4 (1999): 576.

Both arguments presented by Sclove and Barber allude to what is often colloquially referred to as technology's "unintended consequences." Jasanoff attests that "the bright glams of promise that invite human societies to invest in technology march hand in hand with darker misgivings about what could go wrong if the promises fail, and the unexpected breakdown happens on a grand scale."<sup>17</sup> The impacts of technology seem to present themselves as a yin and yang-- the good along with the bad. However, as Jasanoff argues, the language of "*unintended* consequences" is dangerous as it implies that any kind of foreword thinking about technologies societal, cultural, and political impacts is useless and provides the kind of framework that has allowed technologist like Mark Zuckerberg to follow a "move fast and break things" mentality.<sup>18</sup> Moreover, the language of "unintended consequences" removes the imperative for anyone to take responsibility for the impacts that technologies have on society apart from their primary use.<sup>19</sup> As Jasanoff states, this language further "reduce[s] us to helplessness, not knowing quite how to respond, let alone how to mitigate the damage."<sup>20</sup> Though Sclove hints at the same phenomenon of unintended consequences, his language of primary versus secondary uses and impacts provides a clearer and more helpful framework through which to understand the intersection of technologies and societal impacts. As Jasanoff notes, much like the yin and yang of technological impacts, in order for there to be unintended consequences, there need to be intended consequences, and as she asks: "What, after all, are technology's *intended*

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17. Sheila Jasanoff, *The Ethics of Invention: Technology and the Human Future* (New York: W.W. Norton, 2016), 214.

18. Jasanoff, *The Ethics of Invention*, 23.

19. Jasanoff, *The Ethics of Invention*, 24.

20. Jasanoff, *The Ethics of Invention*, 24.

consequences.”<sup>21</sup> Jasanoff further highlights the reality that “good consequences are always thought to be intended, and only bad outcomes are retrospectively labeled as unintended.”<sup>22</sup> If the term *unintended* fixes the creator’s intention on the side of good, within the context of Sclove and Barber’s theories of technology, that one intended “good” use will never exist in a static state as the uses, functions, and impacts of technology on society are always evolving.

When considered within the context of technologies as social structure, Jasanoff’s discussion of unintended consequences becomes crucial in that it allows for the placement of agency. If technology is neither inherently liberatory nor repressive, it is neither inherently pro-democracy nor pro-autocracy; thus, action can be taken to protect the potential for digital technologies to promote democratic practice. This is most important within the context of non-democratic regimes as digital technologies have provided access to information in authoritarian regimes in a way that has never been possible before – even when taking into account authoritarian leaders efforts to mitigate such flows of information – whereas access to information in democracies has historically not been an impediment to civic action.<sup>23</sup>

There has been a great deal of scholarship over the past decade postulating which side of the spectrum digital technologies will ultimately land: will digital technology be liberatory or repressive, and will they serve to promote democratic practices or be a tool for autocratic regimes to further exercise control over their populations? This debate centers around the dichotomic battle between “liberation technology” and “repression

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21. Jasanoff, *The Ethics of Invention*, 24.

22. Jasanoff, *The Ethics of Invention*, 25.

23. Ruijgrok, “From the web to the streets,” 498.

technology,” with liberation technology playing for democracy and repression technology for autocracy. When considered within Jasanoff’s theory of “unintended consequences,” liberation technology – while not necessarily an intended outcome of many digital technologies and often in the form of Sclove’s secondary use framework – is portrayed as an intended outcome, while repression technologies are considered to be unintended, and thus the inventor is not held to account for such impacts. More recent scholarship has started to explore the reality that the division between liberation and repression technologies may not be so black and white. As Azer notes in research on the Arab Spring in Egypt, “technology has been paradoxical, which means that a certain technology applied in a certain way in a certain context may have consequences or implications of one kind, and may necessarily and at once be implicated in a contrary set of consequences or implications.”<sup>24</sup> It is becoming increasingly clear that one technology may at once be both liberatory and repressive. Diebert and Rohozinku are among the first to have written about this notion and clearly articulated this finding, noting that “the very same technologies which give voice to democratic activists living under authoritarian rule can also be harnessed by their oppressors.”<sup>25</sup> Ultimately, Diebert and Rohozinku contend that these questions about technological impacts are inherently complex due to the fact that technological systems are not “static artifact[s]” but rather “a constantly evolving domain – a multilevel ecosystem of physical infrastructure, software, regulators, and ideas.”<sup>26</sup>

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24. Evronia Azer, Yingqin Zheng and G. Harindranath. "Paradoxes of Visibility: The Inter-Play of Online Power Dynamics between Activists and the State in the Egyptian Revolution." *Mediterranean Conference on Information Systems 2018 Proceedings*, (2018): 2.

25. Deibert and Rohozinski, “Liberation vs. Control,” 19.

26. Deibert and Rohozinski, “Liberation vs. Control,” 20.

In 2010 when the *Journal of Democracy* published Larry Diamond's influential article entitled "Liberation Technology," the world was only just waking up to the potential for digital technologies to promote democratic practices under non-democratic regimes. As the mobile phone revolution and Internet-enabled devices spread rapidly outside of wealthy Western democracies throughout the early to mid-2000s, secondary uses of these technologies became increasingly evident. Diamond explains that digital technologies are liberatory in so far as they can "empower individuals, facilitate independent communication and mobilization, and strengthen an emergent civil society."<sup>27</sup> However, he also more specifically defines liberation technology as "any form of information and communication technology (ICT) that can expand political, social, and economic freedom."<sup>28</sup> In providing a lens through which citizens can access uncensored information, digital technologies enable citizens to more accurately evaluate government performance and engage in the global community, ultimately "[facilitating] democratic socialization."<sup>29</sup> Diamond's theory of liberation technology expands into digital technology's ability to function as "accountability technology." Diamond argues that "liberation technology is also 'accountability technology,' in that it provides efficient and powerful tools for transparency and monitoring."<sup>30</sup> There are many modalities of accountability, but they all rely upon access to reliable and independent information. In exploring this concept, Siegle

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27. Larry Diamond, "Introduction," In *Liberation Technology: Social Media and the Struggle for Democracy*, edited by Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012): xii.

28. Diamond, "Liberation Technology," 4.

29. Elizabeth Stoycheff, G. Scott Burgess, and Maria Clara Martucci. "Online Censorship and Digital Surveillance: The Relationship between Suppression Technologies and Democratization Across Countries." *Information, Communication & Society*, vol. 17 no. 1 (2018): 1 - 17. doi:10.1080/1369118X.2018.1518472.

30. Diamond, "Liberation Technology," 10.



writes that “information is the lifeblood of accountability.”<sup>31</sup> Through acting as a form of accountability for governments and promoting access to independent information, ICTs provide avenues for citizens to protest the status quo.

In his evaluation of the Internet’s ability to promote democratic practices under forms of non-democratic governance, Ruijgrok finds that digital technologies impact the promotion of democratic practices in four main ways: (1) By reducing the costs and risks for those who may wish to speak out; (2) By allowing for “attitudinal change”; (3) By enabling citizens to share in their discontent and wish for action; thus, lowering informational uncertainty for those who may wish to speak out; and (4) By the mobilizing effect of audiovisual content such as real-time images and videos shared online or via SMS.<sup>32</sup> Various works by other scholars confirm Ruijgrok’s findings.

*(1) By reducing the costs and risks for those who may wish to speak out:*

Prior to the digital revolution, the cost of collecting and disseminating information, as well as the cost of coordinating citizen organization, served as substantive advantages for regimes seeking to remain in control.<sup>33</sup> However, the introduction of Internet-based devices, as well as mobile phones and broadband infrastructure, have significantly lowered the cost of sharing information and have created an efficient and effective platform for activists and ordinary citizens to coordinate collective action.<sup>34</sup> Moreover, the appearance

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31. Siegle, “ICT and Accountability in Areas of Limited Statehood,” 64.

32. Ruijgrok, “From the web to the streets,” 499.

33. Philip N. Howard and Muzammil M Hussain, *Democracy’s fourth wave?: digital media and the Arab Spring* (New York: Oxford University Press, 2013), 66.

34. Chun-Chin Chang and Thung-Hong Lin, “Autocracy log in: Internet censorship and civil society in the digital age,” *Democratization* vol. 27:5 (2020), 875.

of anonymity provided by online communication through tools like social media networking platforms equips users with a perceived layer of protection from government retribution unusual when undertaking stances of political opposition.<sup>35</sup>

(2) *By allowing for “attitudinal change”:*

Ruijgrok argues that by introducing citizens to information that is distinct from official government rhetoric or published by government-influenced media, digital ICTs can alter citizen attitudes about government performance and legitimacy.<sup>36</sup> Specifically, Ruijgrok notes that “as citizens are increasingly exposed to government failures, civic debates, and alternative ideas, a more fertile ground for mobilization is likely to be created, due to changing attitudes.”<sup>37</sup> Bailard introduces two conceptual mechanisms called “mirror-holding” and “window-opening” to explain how digital ICTs operate within non-democratic or information-restricted regimes to promote democratic practices such as political contestation, protest, and transparency and accountability in governance. Mirror-holding refers to the ability of various ICTs like the Internet to view one’s own government more accurately through “its capacity to provide a larger and more diverse set of information upon which to base an evaluation.”<sup>38</sup> Whereas “window-opening” refers to the process by which citizens’ access to such information can “alter the criteria and expectations that they consider in the course of arriving at those evaluations.”<sup>39</sup>

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35. Ruijgrok, “From the web to the streets,” 500.

36. Ruijgrok, “From the web to the streets,” 501-502.

37. Ruijgrok, “From the web to the streets,” 501-502.

38. Catie Snow Bailard, “A Field Experiment on the Internet’s Effect in an African Election: Savvier Citizens, Disaffected Voters, or Both?” *Journal of Communication* vol. 62 (2012): 333.

39. Bailard, “A Field Experiment on the Internet’s Effect in an African Election,” 333.

*(3) By enabling citizens to share in their discontent and wish for action; thus, lowering informational uncertainty for those who may wish to speak out:*

The real-time spread of independent multi-way and peer-to-peer information can function to minimize citizen fears both in terms of speaking out and taking action.<sup>40</sup> Through such communication, Siegle argues that ICTs serve to “[transform] what is a solitary indignity and exploitative experience into a shared recognition that many others have encountered similar circumstances. This experience is empowering to victims and the society at large—diminishing their sense of helplessness—and providing them a tool by which to take the initiative in redressing their grievance.”<sup>41</sup>

*(4) By the mobilizing effect of real-time images and videos shared via digital means:*

Another affordance of the inherent features of digital technologies as a tool is that they “can induce emotional mobilization by transmitting visual information from sources other than official propaganda.”<sup>42</sup>

Given the potential for digital technologies to empower opposition under non-democratic regimes, many question why states attempting to clamp down on the promotion of democratic practices would not simply remove the ability to access the Internet. The short answer pointed toward in recent scholarship is that it is simply not an option. However, the reality is not quite as straightforward. Rod and Weidmann explain that “the Internet is not imposed on a particular country from the outside; rather its introduction

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40. Ruijgrok, “From the web to the streets,” 502.

41. Siegle, “ICT and Accountability in Areas of Limited Statehood,” 67.

42. Chang and Lin, “Autocracy log in,” 875.

relies critically on the permission and support of the domestic government.”<sup>43</sup> In the late 1990s and early 2000s, the economic benefits of Internet adoption were too large for governments to ignore. Furthermore, in order to receive international aid from Western democracies, refusing Internet adoption was not an option for many countries.<sup>44</sup> Initially, the effects of adopting a liberation technology like the Internet were not noticeable or problematic for non-democratic regimes. However, as access increased and Internet-enabled mobile phones became commonplace, the potential for digital technologies to promote democratic practices under non-democratic regimes was a reality faced by many states. Ultimately, as Diamond asserts, “technology is merely a tool, open to both noble and nefarious purposes.”<sup>45</sup> Thus, in order to retain the economic benefits for the domestic economy as well as from the international community while still remaining in a position of power, non-democratic regimes responded by countering the liberating effects of digital technologies with their own, often digitally enabled, reactive measures.<sup>46</sup>

While many of the non-democratic regimes discussed in this thesis are not consolidated autocracies, features of the “problem of authoritarian rule” as explored by Rod and Weidmann provide a useful framework through which to conceptualize the reactive measures taken by regimes in the face of liberation technologies. A central feature of Rod and Weidmann’s exploration of the “problem of authoritarian rule” is “the problem of mass control to prevent the rise of popular opposition leaders and uprisings.”<sup>47</sup> Digital

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43. Espen Geelmuyden Rod and Nils B. Weidmann, “Empowering activists or autocrats? The Internet in authoritarian regimes,” *Journal of Peace Research* vol 52:3 (2015), 341.

44. Ruijgrok, “From the web to the streets,” 504.

45. Diamond, “Introduction,” xii.

46. Chang and Lin, “Autocracy log in,” 874.

47. Rod and Weidmann, “Empowering activists or autocrats?” 339.

technologies make it more difficult for regimes to solve the “problem of authoritarian rule” as it makes it easier and faster for information to effectively flow through the population than ever before, making the fear of successful opposition candidates and mass uprisings a credible threat to a regime’s position of power.<sup>48</sup> As the control of information is an essential feature for regimes seeking to remain in power, reactive measures attempting to counter liberation technologies have predominantly centered around efforts to regain control over the information ecosystem.<sup>49</sup>

Due to the economic and political implications of draconian actions with respect to digital technologies – the Internet in particular – states have created complex mechanisms of digital censorship and surveillance to limit the liberating effects of digital technologies in an attempt to remain in power.<sup>50</sup> Whereas censorship violates the right to freedom of expression, surveillance violates the right to privacy.<sup>51</sup> There are two main mechanisms of Internet censorship used by states to limit the flow of information: manipulation and demobilization.<sup>52</sup> In less developed states with lower levels of technology integration and adoption, demobilization is the main mechanism of Internet censorship. Increasingly, non-democratic regimes in which levels of technology integration and adoption are lower, Internet shutdowns have become the most prominent type of demobilization tactic.<sup>53</sup> Within the context of digital technologies, surveillance can be defined as “a policing tactic

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48. Rod and Weidmann, “Empowering activists or autocrats?” 340.

49. Diamond, “Liberation Technology,” 5.

50. Chang and Lin, “Autocracy log in,” 876.

51. Chang and Lin, “Autocracy log in,” 874.

52. Chang and Lin, “Autocracy log in,” 876.

53. Marie Lamensch, “Authoritarianism Has Been Reinvented for the Digital Age,” CIGI, last updated July 9, 2021. <https://www.cigionline.org/articles/authoritarianism-has-been-reinvented-for-the-digital-age/>

with aims to quell or weaken political activity in order to gather information about social movements and inhibit them from accomplishing their plans.”<sup>54</sup> Both censorship and surveillance attempt to obstruct citizens’ ability to use digital technology for the promotion of democratic practices that could result in the regime’s loss of power. Moreover, Rod and Weidmann suggest that for the regime, “simply signaling presence on the Web may be equally effective in deterring consumption of certain information” through contributing to an environment of fear and self-censorship.<sup>55</sup>

Morozov suggests that regimes seek to control the digital spread of information through a combination of technological and sociopolitical means.<sup>56</sup> Censorship and surveillance are considered technological mechanisms, while sociopolitical refers to the use of legislation, physical imprisonment, fees, and so on.<sup>57</sup> While there are inevitably solutions to technological mechanisms such as circumvention tools like VPNs and encryption, Morozov contends that “the great paradox is that the rising profile of ‘liberation technology’ may push Internet-control effect into nontechnological areas for which there is no easy technical ‘fix.’”<sup>58</sup> In countries where censorship and surveillance are not able to have a sustained impact on the flow of information, regimes have begun to utilize sociopolitical mechanisms more frequently—especially when technological mechanisms

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54. Evronia Azer, Yingqin Zheng and G. Harindranath, "Paradoxes of Visibility: The Inter-Play of Online Power Dynamics between Activists and the State in the Egyptian Revolution," *Mediterranean Conference on Information Systems 2018 Proceedings*, (2018): 2.

55. Rod and Weidmann, “Empowering activists or autocrats?” 341.

56. Evgeny Morozov, “Whither Internet Control?” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 58.

57. Morozov, “Whither Internet Control?” 58.

58. Morozov, “Whither Internet Control?” 59.

have failed to restrict mass mobilization (Egypt) or the growth of political opposition (Tanzania).

Through his explorations at the intersection of democracy and technology, Barber seems to possess more optimism about the future of democracy in the face of digital technology. However, he is very clear that the only way forward is through a joint effort on the part of citizens and the government to consciously shape technology to fit current needs-- to find places where technology can plug specific holes in governance.<sup>59</sup> Even in the face of technological and sociopolitical obstacles to the potential for digital technologies to promote democratic practices under non-democratic regimes, there are strategic opportunities where the affordances of digital technologies can remain liberatory.

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59. Barber, "Three Scenarios for the Future of Technology and Strong Democracy," 582.

## CHAPTER 2: EGYPT

Commentaries on the impact of technology on political movements typically fall into two categorizations: technology will liberate, or technology will repress. In his revolutionary book *Liberation Technology*, Larry Diamond argues that it is neither. Rather, the same technology can have a myriad of impacts within the same political movement depending on its application. Under this notion, we must ask, what can be done to mitigate the repressive impacts of technologies that simultaneously provide avenues for liberation under non-democratic regimes? Diamond further argues that although most uses of digital technologies are inherently apolitical, they can serve as a tool for empowerment, lowering barriers to entry into the political sphere.<sup>60</sup> In countries where political contestation has been stifled, Diamond suggests that digital technologies have been able to “[emerge] as an alternative political scene where a discourse on democracy and human rights [is] still possible.”<sup>61</sup> Egypt provides an ideal case to explore the complex impacts that digital technologies can have on political contestation under non-democratic regimes.

During the 2011 Arab Spring revolution throughout the Middle East and North Africa, information communication technologies (ICTs) served as a vehicle through which people frustrated with the political situation could unite, offering them a civic space in which to begin an effort to gain democratic freedoms and contest repressive regimes.

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60. Larry Diamond, “Liberation Technology,” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 5.

61. Patrick Meier, “Ushahidi as a Liberation Technology,” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 100.



Simultaneously, autocrats within these countries were able to use the same technologies to launch a counter-revolution, stifling dissent and cracking down on any form of political contestation. As will become increasingly evident through this exploration of Egypt as a case study, Diamond's contention that technology is neither liberatory nor repressive holds true.

### Contextual Background

In his 1996 "A Declaration of the Independence of Cyberspace," John Perry Barlow states that "We are creating a world where anyone, anywhere, may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity."<sup>62</sup> Early scholars of the Internet, like Barlow, viewed its decentralized structure as inherently beneficial to democratic advancement in that through freedom in the flow of information, more citizens would be afforded the ability to participate in and engage with governance.<sup>63</sup> Moreover, Barlow and his contemporaries believed that the Internet would allow for not just participation itself but also the freedom to express one's true beliefs due to the ability to remain anonymous online. Leading up to the 2011 Arab Spring revolutions, this was very much the predominant mode of thinking across the globe at the intersection of political action and digital technologies.

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62. John Perry Barlow, "A Declaration of the Independence of Cyberspace," (February 8, 1996)<https://www.eff.org/cyberspace-independence>

63. Elizabeth Stoycheff, G. Scott Burgess, and Maria Clara Martucci, "Online Censorship and Digital Surveillance: The Relationship between Suppression Technologies and Democratization Across Countries," *Information, Communication & Society* vol. 17:1 (2018), 2.

During the early days of the Internet, Egypt's then-president, Hosni Mubarak, saw the economic benefits of Internet and mobile phone adoption, making the creation of a telecommunications industry and support an information-literate population national priorities. At the end of 2000, there were only 450,000 Internet users in Egypt, but by 2011 that number had increased to 29 million.<sup>64</sup> As a result, Internet use in Egypt spread much more quickly than in other nations in the region.<sup>65</sup> By 2005, Egyptians had widely adopted blogging and social media-based Internet sites. In 2008, more than 15% of blogs in Egypt had between 10,000 and 50,000 visitors, with 8.4% of blogs attracting more than 50,000 visitors.<sup>66</sup> Prior to the 2011 revolution, mobile phone usage in Egypt was almost ubiquitous (about 80% penetration),<sup>67</sup> and the country's population used the Internet more than any other country in the Arab world.<sup>68</sup>

Spurred by the evolving political dynamics, these uses for the Internet gained traction quickly as they provided an avenue for citizens to share grievances.<sup>69</sup> Prior to the Arab Spring, Egyptian activists turned to the Internet as a platform from which to spread ideas about the freedoms and democratic practices lacking in political life to engage

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64. Paradigm Initiative, "LONDA: Egypt Digital Rights and Inclusion 2020 Report," A Paradigm Initiative Publication (April 2021), 2.

65. Vasileios Karagiannopoulos, "The Role of the Internet in Political Struggles: Some Conclusions from Iran and Egypt," *New Political Science*, vol. 34:1 (2012), 158.

66. Noha Fathy, "Freedom of expression in the digital age: enhanced or undermined? The case of Egypt," *Journal of Cyber Policy* vol. 3:1 (2018), 106.

67. Anne Alexander, "Internet role in Egypt's protests," *BBC*, last updated February 9, 2011. <https://www.bbc.com/news/world-middle-east-12400319>

68. Muzammil M. Hussain and Philip N. Howard, "Information Technology and the Limited States of the Arab Spring," in *Bits and Atoms: Information and Communication Technology in Areas of Limited Statehood*, ed. Steven Livingston and Gregor Walter-Drop (London: Oxford University Press, 2014): 21.

69. Karagiannopoulos, "The Role of the Internet in Political Struggles," 158.

citizens throughout the country.<sup>70</sup> By 2008, Mubarak's regime had already begun to see the ways in which the Internet could offer the population a potent voice; thus, they quickly began efforts to crack down on anti-regime discourse that was beginning to proliferate online.<sup>71</sup>

In June of 2010, a young Egyptian citizen named Khaled Saeed was beaten to death by Egyptian security forces, and images of Saeed's disfigured face circulated widely online as evidence of unrestrained police brutality and corruption, provoking unrest throughout the country.<sup>72</sup> It is thought that Saeed's arrest and subsequent death were in retaliation for a video Saeed has posted on YouTube of police officers pocketing money from a drug operation, highlighting rampant government corruption.<sup>73</sup> The widely circulated graphic images of Khaled Saeed had a monumental impact on the psyche of Egyptian society and directly ignited an outrage within the population to push back against the actions of the state's security forces and mobilize in protest. The image has been considered "the face that launched a revolution" by many media outlets since the events of the protest themselves.<sup>74</sup> This event and the resulting outrage festered throughout the population and

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70. Geelmuyden Rød Espen and Nils B. Weidmann, "Empowering Activists Or Autocrats? the Internet in Authoritarian Regimes," *Journal of Peace Research* vol. 52:3 (2015), 340.

71. Karagiannopoulos, "The Role of the Internet in Political Struggles," 159.

72. Brian Ross and Matthew Cole, "Egypt: The Face That Launched a Revolution," *ABC News*, last updated January 25, 2011. <https://abcnews.go.com/Blotter/egypt-face-launched-revolution/story?id=12841488&page=1>

73. Mona El-Ghobashy, "The Praxis of the Egyptian Revolution," in *The Journey to Tahrir: Revolution, Protest, and Social Change in Egypt*, ed. Jeannie Sowers and Chris Toensing (London: Verso, 2012), 25.

74. Ross and Cole, "Egypt: The Face That Launched a Revolution."

was worsened by rigged election outcomes in December. Throughout the end of 2010, protest movements and clashes with Mubarak's security forces had continued to rise.<sup>75</sup>

The 2011 Egyptian Revolution began on January 25, Egypt's national "Police Day," in which the country honors the police. When combined with rising tensions around police brutality and the success of Tunisia's revolution that had occurred eleven days prior, widespread political mobilization perpetuated through the use of digital technologies erupted throughout the country.<sup>76</sup> By exposing the corruption within Mubarak's regime publicly and in a largely accessible space, activists were able to use the Internet to involve greater portions of the population in this call to action than previously possible. ICTs were a crucial tool used by activists to stoke the flames of civic unrest and enabled citizens to identify and share the regime's missteps. Mona El-Ghobashy suggests that this confluence of factors – technology, Tunisia, and internal tensions – created the conditions for the 2011 revolution in Egypt.<sup>77</sup>

There is some disagreement among scholars regarding how much causality can be assigned to digital technologies themselves. However, there is unanimous agreement that digital technologies did contribute to the massive citizen participation in the protests. By the afternoon of the first day of protest on 25 January 2011, 90,000 people had come

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75. El-Ghobashy, "The Praxis of the Egyptian Revolution," 26.

76. Shinta Puspitasari, "Arab Spring: A Case Study of Egyptian Revolution 2011," *Andalas Journal of International Studies* vol. 6:2 (2017): 163.

77. El-Ghobashy, "The Praxis of the Egyptian Revolution," 22.

together in Cairo's Tahrir Square. It is estimated that in total over 10 million protesters participated in the 2011 Egyptian Revolution.<sup>78</sup>



**Figure 2.1:** Protesters gather in Egypt's Tahrir Square on February 8, 2011.<sup>79</sup>

After the 2011 revolution, online activism in Egypt continued to flourish and served as the main vehicle through which human rights violations were documented and shared with the population.<sup>80</sup> Morsireen (Insistent) was a central platform utilized by Egyptian

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78. Ahmed Shokr, "The Eighteen Days of Tahrir" in *The Journey to Tahrir: Revolution, Protest, and Social Change in Egypt*, ed. Jeannie Sowers and Chris Toensing (London: Verso, 2012), 42.

79. "Memorable images from the Egyptian revolution," *The Washington Post*.  
[https://www.washingtonpost.com/world/iconic-and-memorable-images-from-the-egyptian-revolution/2012/01/24/gIQAwhaPPQ\\_gallery.html](https://www.washingtonpost.com/world/iconic-and-memorable-images-from-the-egyptian-revolution/2012/01/24/gIQAwhaPPQ_gallery.html)

80. Fathy, "Freedom of expression in the digital age: enhanced or undermined?" 106.

digital activists in the wake of 2011 to document protests as well as ongoing police and military brutality throughout the country.<sup>81</sup>

Under the framework proposed by Diamond, during the Arab Spring in Egypt, the Internet served as a “liberation technology.” Diamond uses the term *liberation technology* in reference to any technology that has “demonstrated potential to empower citizens to confront, contain, and hold accountable authoritarian regimes – and even to liberate societies from autocracy.”<sup>82</sup> At the outset, it appears as though the Internet did function as this utopian vision of technology’s potential; however, due to the Internet’s ability to enable citizens to hold leaders accountable, many autocrats viewed and continue to view the Internet as a threat to their regime’s stability.

As the Internet’s ability to increase the flow of information throughout the population, Mubarak’s regime responded to protest mobilization by restricting such flows of information. This type of reactive measure confirms the theory that the opportunities afforded to advocacy groups and civil society by the Internet are countered by reactive measures on the part of the regime as put forward by Chun-Chin Chang and Thung-Hong.<sup>83</sup>

In a direct response to the Internet’s use in the mobilization of protesters, Mubarak’s regime took draconian measures to stop the flow of information among the population by instituting a blackout Internet shutdown, the most comprehensive form of Internet shutdown. The government further responded with censorship and surveillance

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81. Fathy, “Freedom of expression in the digital age: enhanced or undermined?” 106.

82. Larry Diamond, “Introduction,” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012). xi.

83. Chun-Chin Chang and Thung-Hong Lin, “Autocracy log in: Internet censorship and civil society in the digital age,” *Democratization* vol. 27:5 (2020), 874.

technologies. As suggested by Unver, many of the tools that are “essential for protest and dissent planning and coordination, deliberately or passively worked with governments and intelligence agencies to help spy on these movements.”<sup>84</sup>

While Mubarak stepped down on February 11, 2011, eighteen days after the start of the protests, the momentum of the revolution was unable to manifest into actionable change.<sup>85</sup> Egypt’s first democratically elected President, Mohamed Morsi, was overthrown in a 2013 military coup. After coming into power, General Abdel Fattah el-Sisi explicitly sought to expand the use of online censorship mechanisms to control the population’s access to information and communications tools in the hopes of preventing further political instability.<sup>86</sup>

### Liberation Technologies

While it seems as though Egypt provides a window into the Internet’s lost promise, there are many opportunities to learn from Egypt’s successes and failures. As the early utopian hopes for the Internet fade, the potential to think more critically about the interaction between online and offline spaces has begun to emerge. In her work on ICTs and protest in non-democracies, Ashley Anderson notes that the success of protests stemming from these online spaces is not entirely reliant on the structure of the online space itself. Rather, the success of the protest relies heavily on the embedded system of collective

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84. H. Akin Unver, "Digital Challenges to Democracy," *Journal of International Affairs* vol. 71:1 (2017), 135.

85. David D. Kirkpatrick, “Army Ousts Egypt’s President; Morsi Is Taken Into Military Custody,” *The New York Times*, last updated July 3, 2013.

<https://www.nytimes.com/2013/07/04/world/middleeast/egypt.html>

86. Stoycheff, Burgess, and Martucci, "Online Censorship and Digital Surveillance," 3.

action already ingrained within the community at large.<sup>87</sup> Whereas activist communities prior to the advent of the Internet struggled to engage large enough portions of the population to make a substantial difference, online activist communities absent the offline support structure failed to withstand the inevitable government retaliation. If activist communities can work to merge the strengths of online protest mobilization with the strengths of engrained community structure, society's problem of collective action could be one step closer to being solved.

Anderson's research finds that while participation is impacted by ICTs, such as social media, the most important factor for protest success is membership in physical organizational networks. In Egypt, and throughout the Arab world, in 2011, protest was not because of the Internet, but rather, the Internet facilitated the means through which collective action occurred. Following the death of Khalid Said, Egyptian technologist and activist Wael Ghonim created a Facebook page called "We Are All Khaled Said," which became a virtual gathering place for anti-Mubarak citizens leading up to as well as during the revolution.<sup>88</sup> Between 2010 and 2011, Facebook users in Egypt climbed from 4.2 million users to 9.4 million.<sup>89</sup> As part of the coordination for the 25 January protests, compilation videos of Egyptian police brutality were circulated on YouTube and shared on "We Are All Khaled Said" as a form of get out the protest advertisements to re-ignite outrage via audio-visual means.<sup>90</sup> The impact of peer-to-peer communication coupled with

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87. Ashley Anderson, "'Networked' Revolutions? ICTs and Protest Mobilization in Non-Democratic Regimes," University of Utah, *Political Research Quarterly* (2020), 2.

88. Kara Alaimo, "How the Facebook Arabic Page 'We Are All Khaled Said' Helped Promote the Egyptian Revolution," *Social Media + Society* (2015): 4.

89. Paradigm Initiative, "LONDA," 2.

90. El-Ghobashy, "The Praxis of the Egyptian Revolution," 26.



visual representations of brutality significantly increased the potency of the information being circulated online; thus, serving to mobilize greater portions of the population than ever before. The free flow of information afforded by digital ICTs had a direct effect in that it enabled citizens to expose police brutality and government corruption on a mass scale.<sup>91</sup>



**Figure 2.2:** Protester's sign captures the impact of technology (February 2011).<sup>92</sup>

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91. Fathy, "Freedom of expression in the digital age: enhanced or undermined?" 98.

92. Mohamed Elshahed, "Tahrir Square: Social Media, Public Space," Places, last updated February 2011. <https://placesjournal.org/article/tahrir-square-social-media-public-space/?cn-reloaded=1>

Through public posts on social media platforms, activists were able to issue a call to action and mobilize the population with the touch of a button.<sup>93</sup> On the morning of the protest, activists shared the location and time of the protest using mobile phones and online. By posting the time and location on platforms like Facebook, the pool of potential protesters was greatly increased as barriers to participation were lowered. Researchers have found that 28.3% of protesters in Tahrir Square during the revolution found out about the protests on Facebook.<sup>94</sup> For all protesters – including those who heard about the protest through other means – 52% were found to have a Facebook account, and almost 100% of those people had used the social media platform to share information or document the protests.<sup>95</sup>

While digital technologies played a crucial role leading up to the revolution in terms of providing an avenue for the organization of collective action, digital technologies also played a crucial role during the protests themselves. Live-tweeting was a critical tool utilized by Egyptian activists to communicate with protestors efficiently and effectively throughout the country and provided citizens with the ability to document and share content from protests in real-time.<sup>96</sup> Moreover, protesters projected Facebook into Tahrir Square

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93. Evronia Azer, Yingqin Zheng and G. Harindranath, "Paradoxes of Visibility: The Inter-Play of Online Power Dynamics between Activists and the State in the Egyptian Revolution," *Mediterranean Conference on Information Systems 2018 Proceedings* (2018), 7.

94. Zeynep Tufekci and Christopher Wilson, "Social media and the decision to participate in political protest: Observations from Tahrir Square," *Journal of Communications* vol. 62:2 (2012): 369.

95. Tufekci and Wilson, "Social media and the decision to participate in political protest," 370.

96. Azer, Zheng, and Harindranath, "Paradoxes of Visibility," 7.

at night in order to get and share information about the revolution as there was a fear that Mubarak would use the traditional channels of mass communication for his own ends.<sup>97</sup>



**Figure 2.3:** Protesters in Tahrir Square watch s projection of Facebook.<sup>98</sup>

### Countering Liberation Technologies

In order to understand the potential that digital ICTs hold for the pursuit of democratic practices under non-democratic regimes, it is crucial to explore the complicating tensions between digital technology’s liberation potential and its repressive

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97. Mia Jankowicz, “I watched Egypt’s bloody struggle for democracy that began in Tahrir Square 10 years ago today. Here’s my diary of 18 days that shook the world,” *Business Insider*, last updated January 25, 2021. <https://www.businessinsider.com/diary-of-2011-egyptian-revolution-tahrir-square-2021-1>

98. Jankowicz, “I watched Egypt’s bloody struggle for democracy that began in Tahrir Square 10 years ago today.”

affordances. In his writing on the process of democratization, Charles Tilly contends that “democratization has rarely occurred, and still occurs rarely, because under most political regimes in most social environments major political actors have strong incentives and means to block the very processes that promote democratization.”<sup>99</sup>

In the case of Egypt, once Mubarak’s regime began to see the potential political impacts of the Internet through the widespread use of blogging throughout the population leading up to the 2011 revolution, it made an explicit effort to nationalize key components of the telecommunications industry and create close relationships with private telecommunications companies (Telcos) and Internet service providers (ISPs). To promulgate control over ISPs, the government took control of the dissemination of necessary permits, denying permits to ISPs that did not agree to the regime’s standards for government intervention. By monopolizing Telcos and ISPs, either through state ownership or close relationships, the government was able to serve as the hand on the lever controlling the population’s access to information during the 2011 revolution by enacting a blackout Internet shutdown. This relationship is what enabled the 2011 shutdown enacted by Mubarak’s regime amidst the revolution itself.

On 27 January 2011, Mubarak’s regime had enacted a blackout Internet shutdown to restrict the free flow of information throughout the country that was enabling the mass organization of activists and citizens in protest on the streets.<sup>100</sup> One of the first actions taken by the regime was to shut down mobile phone networks throughout the country, as

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99. Charles Tilly, “Processes and Mechanisms of Democratization,” *Sociological Theory* vol. 18:1 (2000): 2.

100. El-Ghobashy, “The Praxis of the Egyptian Revolution,” 35.

mobile phones were a central tool used by activists to share protest locations and other important information.<sup>101</sup> On Friday, January 28, 2011, Mubarak's regime began asking large ISPs within the country to shut down service. The blackout shutdown lasted for five days and affected 93% of networks across the country.<sup>102</sup> However, this blackout shutdown did not have entirely beneficial impacts for the government. By cutting off access to information to the entire country, Mubarak's regime hurt its own functionality as well.<sup>103</sup> Mubarak's regime made the decision that shutting down the Internet to stifle the flow of information throughout the population was more crucial to regime stability than the negative socio-economic impacts that a blackout Internet shutdown would have on the population. The state's previous effort to exert control over the country's Internet infrastructure and fiber-optic cables enabled the regime to easily execute a blackout Internet shutdown, enact episodes of Internet throttling, and cut off the country's domestic text messaging networks during the 2011 revolution to inhibit the ability of activists and civil society groups to utilize the Internet to organize protests, share information, and coordinate the revolution.<sup>104, 105</sup>

In addition to controlling the flow of information through censorship and restrictions, the government also attempted to use digital surveillance to combat the

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101. El-Ghobashy, "The Praxis of the Egyptian Revolution," 35.

102. Jigsaw, "The Internet Shutdowns Issue," *The Current* no. 4 (2021)

<https://jigsaw.google.com/the-current/shutdown/>

103. Hussain and Howard, "Information Technology and the Limited States of the Arab Spring," 22.

104. Adrian Shahbaz, "Freedom on the Net 2018: The Rise of Digital Authoritarianism – Egypt," Freedom House (Oct. 2018)

105. Marko Papić and Sean Noonan, "Social Media as a Tool for Protest," *Stratfor, On Security* (Feb. 3, 2011) <https://worldview.stratfor.com/article/social-media-tool-protest>

revolution. To combat the affordance that social media platforms were providing to anti-Mubarak protesters, Mubarak's security apparatus turned to Facebook and Twitter, tools that activists had been using to coordinate protests and share information, as a means of tracking key activists.<sup>106</sup> Namely, in the hopes of stopping "We Are All Khaled Said," security forces utilized Facebook to identify and subsequently imprison Wael Ghonim on January 27, 2011.<sup>107</sup> Moreover, as the protests began to break out, the state used Facebook pages to identify and locate 40 leaders who had participated in large-scale anti-regime protests in 2008, hoping to clamp down on protest leadership and quell the revolution before it began in earnest.<sup>108</sup> While these platforms helped to facilitate the mass scale of the revolution, they were not only vulnerable to shutdowns but also to surveillance by the regime.

Mubarak's regime attempted to further hamper the flows of information that contributed to the opposition by coopting Vodafone and utilizing subscriber information to issue pro-regime text messages during the protests themselves.<sup>109</sup> In this case, it is clear to see the ways in which a single digital technology, such as mobile phones, can be used at once to enable activists to live-tweet the events of the revolution itself, while at the exact same time be utilized by the regime for their own ends to push back against the opposition.

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106. Hussain and Howard, "Information Technology and the Limited States of the Arab Spring," 22.

107. Alaimo, "How the Facebook Arabic Page 'We Are All Khaled Said' Helped Promote the Egyptian Revolution," 4.

108. Papic and Noonan, "Social Media as a Tool for Protest."

109. Marc Lynch, "After Egypt: The Limits and Promise of Online Challenges to the Authoritarian Arab State," *Perspectives on Politics*, vol. 9:2 (2011), 301-310.

In his exploration of Egypt's democratic transition following the 2011 revolution, Marc Lynch highlights the impact of social media-driven movements on the post-revolution environment. Lynch argues that social media changes the shape of the information ecosystem and greatly influences the flow of political information such that inter-group differences and fears are often heightened.<sup>110</sup> In the case of Egypt, for example, it is believed that the revolution's reliance on social media deepened the divide between the Supreme Council of the Armed Forces (SCAF) and the Muslim Brotherhood.<sup>111</sup>

In the years since the 2011 revolution, Internet freedom in Egypt has been steadily declining.<sup>112</sup> Sisi's regime also relies on emerging surveillance technologies to combat potential opposition. Upon coming to power, Sisi's regime began using deep packet inspection (DPI) software, a tool that is arguably one of the most extreme forms of Internet surveillance and censorship available to governments, enabling regimes to censor content in real-time while collecting metadata on citizen's actions online.<sup>113</sup> DPI goes beyond content restrictions, extending the arm of the government by putatively monitoring text conversations on chat-based platforms such as Skype, WhatsApp, and Viber.<sup>114</sup>

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110. Marc Lynch, Deen Freelon, and Sean Aday, "Online Clustering, Fear and Uncertainty in Egypt's Transition," *Democratization*, vol. 24:6 (2017), 1162.

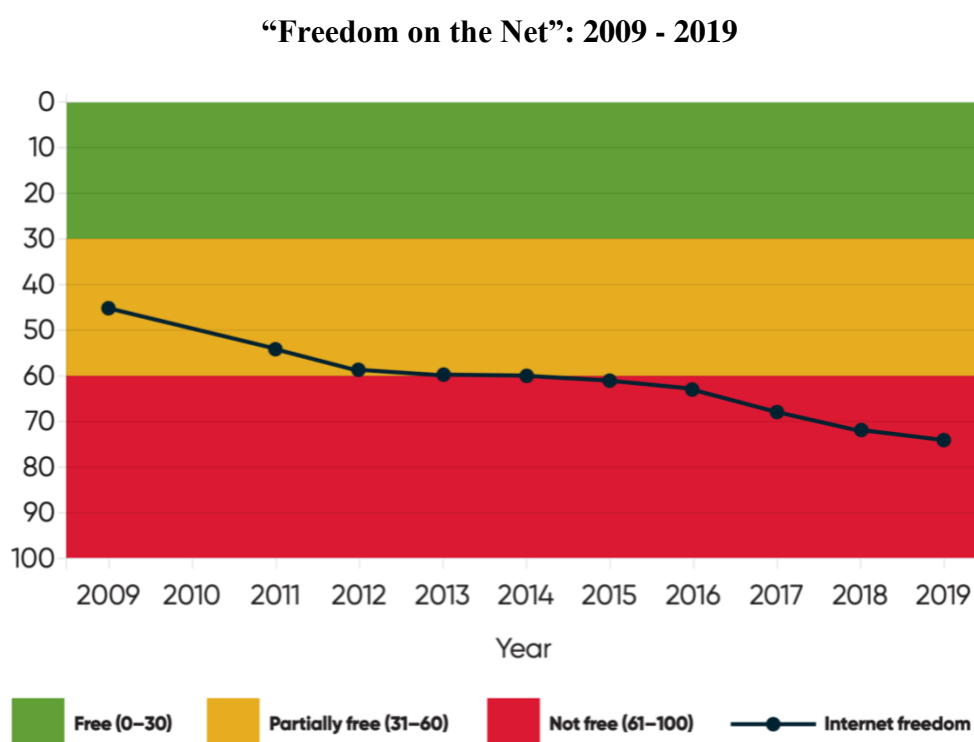
111. Lynch, Freelon, and Aday, "Online Clustering, Fear and Uncertainty in Egypt's Transition," 1165.

112. Kali Robinson, "The Arab Spring at Ten Years: What's the Legacy of the Uprisings?" Council on Foreign Relations, last updated December 3, 2020 <https://www.cfr.org/article/arab-spring-ten-years-whats-legacy-uprisings>

113. Walid El Hamamsy, "BB = BlackBerry Or Big Brother: Digital Media and the Egyptian Revolution," *Journal of Postcolonial Writing*, vol. 47:4 (2011),

114. Russell Brandon, "Egypt launches deep packet inspection system," *The Verge*, last updated September 17, 2014 <https://www.theverge.com/2014/9/17/6350191/egypt-launches-deep-packet-inspection-with-help-from-an-american>

Since coming to power, Sisi has blocked upwards of 500 websites, many of which include local and independent news outlets, influential blogs, political movement sites, and local and international human rights organizations.<sup>115</sup> In further efforts to control information, the state has blocked the use of circumvention tools such as VPNs that enable citizens to bypass state censorship and potential shutdowns.<sup>116</sup>



**Figure 2.4:** Egypt’s Freedom House’s “Freedom on the Net” score declines steadily (graph from Institute of Development Studies, 2021).<sup>117</sup>

115. Shahbaz, “Freedom on the Net 2018.”

116. Shahbaz, “Freedom on the Net 2018.”

117. Mohamed Farahat, “Egypt Digital Rights Landscape Report,” Institute of Development Studies (2021): 219.



The use of such tools has led to a more problematic form of censorship in Egypt: self-censorship. Invisible forms of surveillance lead to the practice of self-censorship in a population as citizens are unsure of how and when they are being watched by the government. As a result, the fear of arrest or violence by the state in response to actions online has caused the Egyptian populace to watch their words very carefully. Not only is the government dictating what people see online through censorship of information, but the government is also controlling how and when people interact in online environments.<sup>118</sup>

Over the last decade, Sisi has deepened the use of such technologies by signing a series of new laws that legitimizes his regime's ability to utilize such repressive tools. The 2018 passage of the Cybercrime Law (175/2018) and the Press and Media Regulation Law (180/2018) provide Sisi's regime with significant legal justification for a variety of digital rights violations that serve to suppress the flow of anti-government information. By invoking national security, the Cybercrime Law empowers the government to enact digital censorship and surveillance on its own population. In the law itself, the language used to define matters of national security is aptly vague, allowing for "a pattern of repression justified by labeling dissent or criticism as threatening to state stability."<sup>119</sup> Whereas the Cybercrime Law targets government access to user data and criminalizes certain types of content more broadly, the Press and Media Regulation Law "Treat[s] social media accounts

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118. Azer, Zheng, and Harindranath, "Paradoxes of Visibility," 9.

119. Elissa Miller, "Egypt leads the pack in internet censorship across the Middle East," The Atlantic Council, MENASource, last updated August 28, 2018.

<https://www.atlanticcouncil.org/blogs/menasource/egypt-leads-the-pack-in-internet-censorship-across-the-middle-east/> ; Under the 2018 law, national security is defined as "everything related to the independence, stability, and security of the homeland and anything linked to the affairs of the Presidency, the Ministry of Defense and General Intelligence..."

and blogs with more than 5,000 followers as media outlets, which would make them vulnerable to prosecution,” as the law also includes sweeping provisions for the blocking of media and journalistic content.<sup>120, 121</sup>

## Conclusion

The proliferation of digital technologies within Egypt, beginning in 1993 with the introduction of the Internet, manifests as a double-edged sword, providing new avenues to express discontent with the regime while additionally providing the regime with new abilities to crack down on dissent. While the Egyptian Revolution and the Arab Spring more broadly are largely synonymous with the democratizing potential of digital technologies, they also serve as a powerful reminder that citizen power alone cannot counter a regime’s technological and sociopolitical capabilities.

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120. Miller, “Egypt leads the pack in internet censorship across the Middle East.”

121. Article 19, “Egypt: 2018 Law on the Organisation of Press, Media and the Supreme Council of Media,” Article 19, legal analysis. <https://www.article19.org/wp-content/uploads/2019/03/Egypt-Law-analysis-Final-Nov-2018.pdf>

## CHAPTER 3: TANZANIA

Over the past two decades, the rate of technological growth in Sub-Saharan Africa has led many techno-optimists to hope that the fate of digital technologies as tools for autocrats is not definite. In the mid-2000s, grass-roots innovations, like the first of its kind mobile payment system M-Pesa, captivated the world. To many, these local solutions suggested that “The right combination of social networking tools and an active audience allows any individual to inspire and coordinate collective action outside of a formal hierarchy.”<sup>122</sup>

Many statistics point toward Tanzania being on the rise as it was re-categorized from a low-income country to a lower-middle-income country by the World Bank in July 2020.<sup>123</sup> However, there are many crucial ways in which the country has simultaneously been in decline over the past ten years. As noted by the World Bank in their contextualization of Tanzania’s new July 2020 status: “The strongest decline has been in the rule of law, governance effectiveness, and voice and accountability whereby political, media and civil society organization’s freedoms have continued to shrink.”<sup>124</sup> The 2010, 2015, and 2020 general elections in Tanzania serve as a clear line through which to draw the declining trajectory of crucial freedoms by the state’s ruling party. However, it is also

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122. Maja Bott, Björn-Sören Gigler, and Gregor Young, “The Role of Crowdsourcing for Better Governance in Fragile State Contexts,” in *Closing the Feedback Loop: Can Technology Bridge the Accountability Gap?*, ed. Björn-Sören Gigler and Savita Bailur (Washington D.C.: The World Bank, 2014), 109.

123. “The World Bank in Tanzania,” The World Bank, <https://www.worldbank.org/en/country/tanzania/overview#1>

124. “The World Bank in Tanzania,” The World Bank

during those elections that the rise of liberation technologies to empower citizens to reclaim the integrity of the democratic practice accountable elections gained significant traction.

### Contextual Background

The Chama Cha Mapinduzi (CCM) is the longest-serving political party on the African continent, having been in power since the country gained independence from Britain in 1961.<sup>125</sup> Between 1961 and 1992, the CCM ruled a one-party state. The introduction of multi-party elections in 1992 did not pose any serious threat to the CCM's power until the 2010 general election. In 2005, the CCM candidate, Jakaya Kikwete, won by 80% over the "opposition" candidate.<sup>126</sup> The case of Tanzania differs from other cases in which digital technology has been turned on its heels and used to repress rather than liberate in that rather than one sole dictator attempting to hold onto power; it is one party with different candidates over the years desperately trying to hold onto power. From the outside, Tanzania seems less authoritarian than countries like Uganda, where one leader has been in power for many decades, but the same techniques are employed in both cases. As the party managed to remain in power through the transition from a one-party to a multi-party system, one can assume that the CCM's objective is to use every tool at their disposal to remain in power through the introduction of digital technologies into the political sphere.

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125. Marielle Harris, "A No-Confidence Vote in Tanzania's Upcoming Elections," Center for Strategic & International Studies, October 26, 2020

<https://www.csis.org/analysis/no-confidence-vote-tanzanias-upcoming-elections>

126. Jeffery Gettleman, "Incumbent Wins Spirited Election in Tanzania," *The New York Times*, November 5, 2010

<https://www.nytimes.com/2010/11/06/world/africa/06tanzania.html>

That said, during the 2010 election, the CCM's margin of victory decreased from 80% to 62% within the span of Kikwete's five-year term.<sup>127</sup> This was a dramatic departure from the previous elections. Many scholars suggest that the increase in mobile phone adoption and Internet penetration between 2005 and 2010 contributed greatly to the opposition's ability to gain popularity throughout the country.

There is one specific digital technology that greatly contributed to the CCM's decline between 2005 and 2010: Ushahidi's crowdmapping platform. Activists in Kenya initially created Ushahidi, a free and open-source software, to digitally map crowdsourced incidents of post-election violence in real-time following Kenya's 2008 general election.<sup>128</sup> Seeing the platform's massive success, civil society organizations in Kenya, Uganda, and Tanzania partnered with Ushahidi to create a similar platform specifically intended to crowdsource election accountability. Uchaguzi (the Swahili word for "election") is an offshoot of Ushahidi (the Swahili word for "witness" or "testimony"). Like Ushahidi, where citizens were able to use web-enabled devices or mobile phones to document and report instances of human rights abuses through a digital platform that maps claims in real-time for citizens, Uchaguzi uses similar mechanisms to allow citizens to report instances of electoral violations directly to the platform to promote greater transparency, accountability, and integrity of elections.<sup>129</sup> The platform continues to be updated and used to promote citizen engagement with electoral accountability throughout Sub-Saharan

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127. Gettleman, "Incumbent Wins Spirited Election in Tanzania."

128. Deobatus Patrick Shayo, "Doing old things in a new way? Technology and crowdsourced observation in the 2015 Tanzanian election," *Scientific African* vol. 11 (2021), 2.

129. Shayo, "Doing old things in a new way?" 2.

Africa and elsewhere across the globe. Ushahidi, Inc. is now a non-profit technology company with multiple different platforms that were created after the success of the first Ushahidi map in Kenya.<sup>130</sup> Uchaguzi was created using Ushahidi's Crowdmap platform that had launched in 2010.<sup>131</sup>

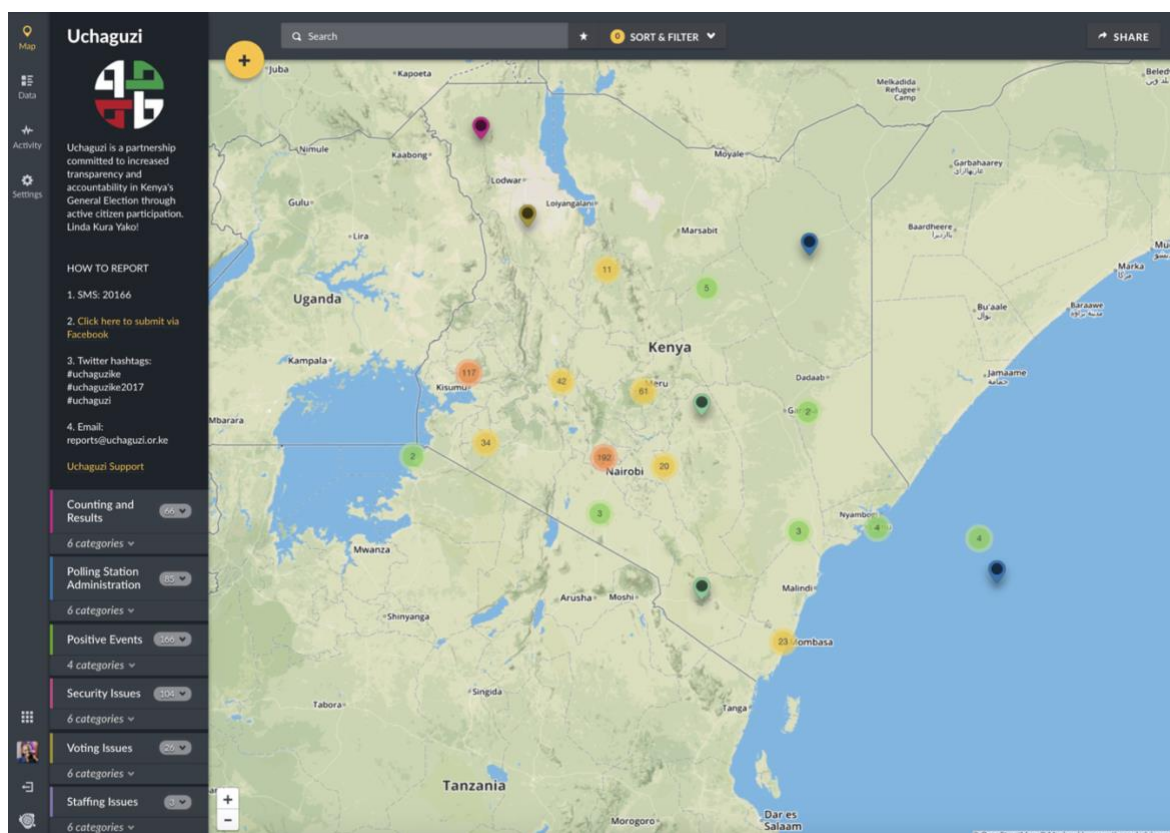


Figure 3.1: Uchaguzi platform snapshot from the 2017 Kenyan election.<sup>132, 133</sup>

130. Patrick Meier, "Ushahidi as a Liberation Technology," in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 95.

131. Meier, "Ushahidi as a Liberation Technology," 97.

132. "Elections are important to Ushahidi," Ushahidi, <https://www.ushahidi.com/blog/2018/03/07/elections-are-important-to-ushahidi>

133. In 2010, Ushahidi created a specific election and violence mapping tool "Crowdmap" which has been under construction since the beginning of 2021. Unfortunately, not all Crowdmaps are currently accessible due to the platform construction – Tanzania's being one. Include clarification for why I only have a pic of

During Tanzania's 2010 general election, Uchaguzi was employed to supplement official election observation. Citizen reports mapped on Uchaguzi during the election included examples such as: "campaign intimidation of female candidates"; "voters' names missing from voter register"; "purchasing of voter cards"; and "media biased in reporting election campaigns."<sup>134</sup> After initial tallies were recorded, the opposition candidate, the Chadema party's Willibrod Peter Slaa, demanded a recount in response to the digital documentation of cases of electoral violations by the ruling party. The recount ultimately took five days to complete, during which citizen fears regarding the integrity of the results began to increase as many believed the delay was caused by efforts to rig the results in favor of the CCM's incumbent President Jakaya Kikwete.<sup>135</sup> Ultimately, it was announced that President Jakaya Kikwete and the CCM had won the election.<sup>136</sup>

Scholar Catie Snow Bailard refers to the use of Uchaguzi during the 2010 election as "a service that allowed citizens to reflect on the performance of their election administration system" in that the platform served as a proverbial lens through which citizens could more accurately see how the government was performing in a way previously unavailable.<sup>137</sup> Bailard conducted a field study during the 2010 election, from

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this one re crowdmap being down since the beginning of 2021 and if the people did;t request it be moved over then it was just archived.

134. Catie Snow Bailard, "A Field Experiment on the Internet's Effect in an African Election: Savvier Citizens, Disaffected Voters, or Both?" *Journal of Communication* vol. 62 (2012): 336.

135. Bailard, "A Field Experiment on the Internet's Effect in an African Election: Savvier Citizens, Disaffected Voters, or Both?" 335.

136. Bailard, "A Field Experiment on the Internet's Effect in an African Election: Savvier Citizens, Disaffected Voters, or Both?" 335.

137. Bailard, "A Field Experiment on the Internet's Effect in an African Election: Savvier Citizens, Disaffected Voters, or Both?" 335.

which she concluded that “Internet use diminished individuals’ perception of the fairness and impartiality of both the election and the subsequent recount.”<sup>138</sup> As the Internet and Internet-enabled digital technologies directly contributed to a lack of confidence in the legitimacy of the ruling party, the case of Egypt would suggest that the ruling party would respond by restricting the ability of citizens to access and share information leading up to, during, and after elections in an effort to remain in power.

The CCM’s response to this strengthening of the opposition can clearly be seen leading up to the 2015 general election and even more so leading up to and during the 2020 general election. Between 2010 and 2015, President Kikwete pursued a series of legislative efforts that sought to control the ability of information to spread within online environments that might pose a threat to the regime’s position of power.<sup>139</sup> As the 2015 election drew nearer, the policing of online communication continued to increase, and users found to be in violation were faced with potential imprisonment or fines.<sup>140</sup> Regardless, Uchaguzi was implemented again before, during, and after the election to monitor for potential cases of election misconduct. During the campaigning period, the CCM’s opposition candidate, Edward Lowassa, proved extremely popular among the population. For many observers, both international and domestic, it seemed possible that this election

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138. Bailard, “A Field Experiment on the Internet’s Effect in an African Election: Savvier Citizens, Disaffected Voters, or Both?” 341.

139. Charlotte Cross, “Cybercrime and the Policing of Politics in Tanzania,” in *Social Media and Politics in Africa: Democracy, Censorship and Security*, ed. Maggie Dwyer and Thomas Molony (London: Zed Books, 2019), 201.

140. Cross, “Cybercrime and the Policing of Politics in Tanzania,” 202.



could serve as a turning point for Tanzania.<sup>141</sup> Ultimately, it was a turning point, but not in the direction observers had hoped.

The CCM's candidate, John Magufuli, won the 2015 election with 58% of the vote, down from the CCM's 62% in 2010. The opposition candidate, Lowassa, won 40% of the vote, up from the main opposition candidate's 27% in 2010.<sup>142</sup> Regardless of the legislative efforts, Kikwete enacted between 2010 and 2015, the CCM's margin of victory continued to shrink. As this election was even closer than before and the threat of a successful opposition candidate continued to rise, it became clear that Magufuli would need to continue to place restrictions on the spread of information to remain in power following the 2020 election.<sup>143</sup>

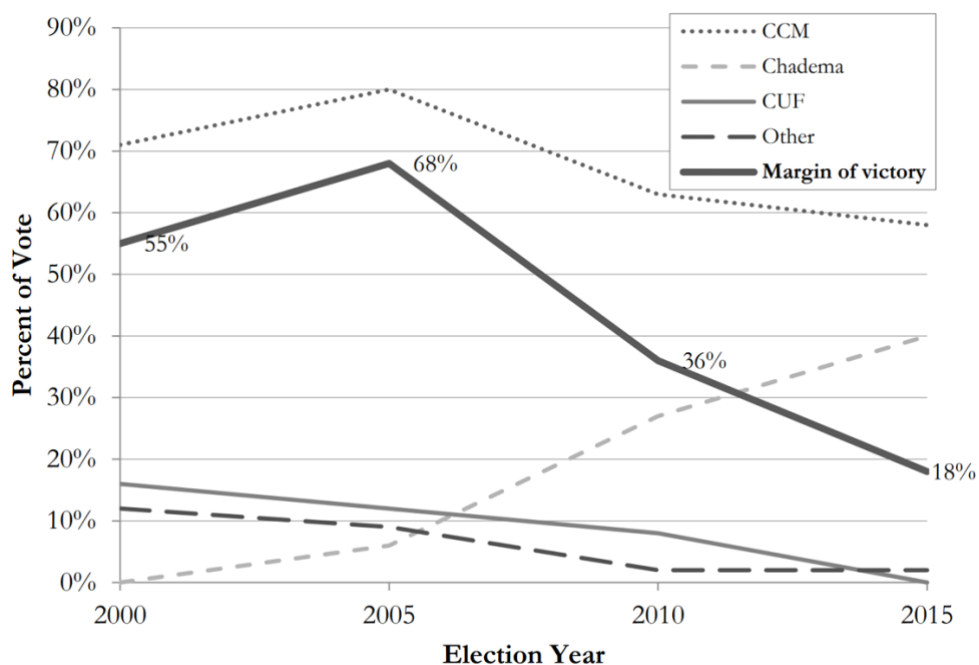
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141. Dan Paget, "Tanzania: Shrinking Space and Opposition Protest," *Journal of Democracy* vol. 28:3 (2017): 153.

142. Paget, "Tanzania: Shrinking Space and Opposition Protest," 153.

143. Paget, "Tanzania: Shrinking Space and Opposition Protest," 154.

### Tanzania General Election: % of Vote and Margin of Victory: 2000 - 2015



**Figure 3.2:** Decrease in CCM's % of vote and margin of victory over time (Source: National Electoral Commission of the United Republic of Tanzania).<sup>144</sup>

As previous efforts to tighten the information space had failed to suppress the opposition, the period leading up to the 2020 election was marked by a drastic shift to more authoritarian leadership. Between 2015 and the 2020 general election, Magufuli enacted a series of increasingly restrictive and repressive laws limiting the ability of the media, journalists, civil society, and everyday citizens to share information. In addition to legislative and structural efforts to stifle the opposition, Magufuli also utilized other forms of repression such as Internet shutdowns to ensure that his efforts did not fail to maintain

144. Paget, "Tanzania: Shrinking Space and Opposition Protest," 159

his position of power. As a direct result of his drastic measures, Magufuli won the 2020 election by 84% of the vote, the CCM's largest margin of victory since 2005.<sup>145</sup>

### Digital Democracy

In discussing how society can combat the global rise of authoritarianism, Larry Diamond claimed that “we also need a renewed effort, using a variety of technologies new and old, to promote the ideas and values of democracy.”<sup>146</sup> Through the potential to provide more opportunities for participatory governance, liberation technologies alter the relationship between citizens and their governments, enabling people to hold leaders accountable.<sup>147</sup> In cases like Tanzania, where the same party has ruled since 1961, liberation technologies utilize new ideas and provide opportunities for the promotion of democratic practices such as electoral transparency, accountability, and integrity.

Digital crowdsourcing enables activists and citizens to circumvent electoral corruption and fraud in new and important ways, providing opportunities for “citizens to report news, expose wrongdoings, express opinions, mobilize protest, monitor elections, scrutinize

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145. Sina Schlimmer and Cyrielle Maingraud-Martinaud, “Tanzania’s 2020 General Elections between Repression and Manipulation. A Consolidation of Magufuli’s ‘Authoritarian Turn’?” French Institute of International Relations, *L’Afrique en question*, no. 58, November 2, 2020 <https://www.ifri.org/en/publications/editoriaux-de-lifri/tanzanias-2020-general-elections-between-repression-and>

146. Larry Diamond, “Breaking Out of the Democratic Slump,” *Journal of Democracy* vol. 31:1 (2020),

147. Alina Rocha Menocal, “Digital technologies and the new public square: revitalizing democracy?” *Democracy in Africa*, February 23, 2021, <http://democracyinafrica.org/digital-technologies-and-the-new-public-square-revitalising-democracy/>

government, deepen participation, and expand the horizons of freedom.”<sup>148</sup> To crowdsource simply means to draw on the larger population – the crowd – for services, ideas, and/or content.<sup>149</sup> Scholars identify three main categories of crowdsourcing:

- *Bounded crowdsourcing*: a limited number of trained or “trusted” citizens serve as the crowd.<sup>150</sup>
- *Unbounded crowdsourcing*: anyone can contribute and be part of the crowd.<sup>151</sup>
- *Passive crowdsourcing*: indirect engagement of citizens serves as the crowd.<sup>152</sup>

In the case of electoral monitoring through digital crowdsourcing, each type of crowdsourcing can be and often is utilized. During the 2010 and 2015 general elections in Tanzania, bounded, unbounded, and passive crowdsourcing methods were incorporated into the Uchaguzi mapping.<sup>153</sup> Through the live geo-mapping of crowdsourced reports, citizens in Tanzania directly participated in the election monitoring process.

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148. Deobatus Patrick Shayo, “Crowdsourcing and Digitization of Electoral Integrity: A Comparative Analysis of Kenya, Tanzania, and Uganda,” (PhD Dissertation, Westfälischen Wilhelms-Universität, 2017): 6.

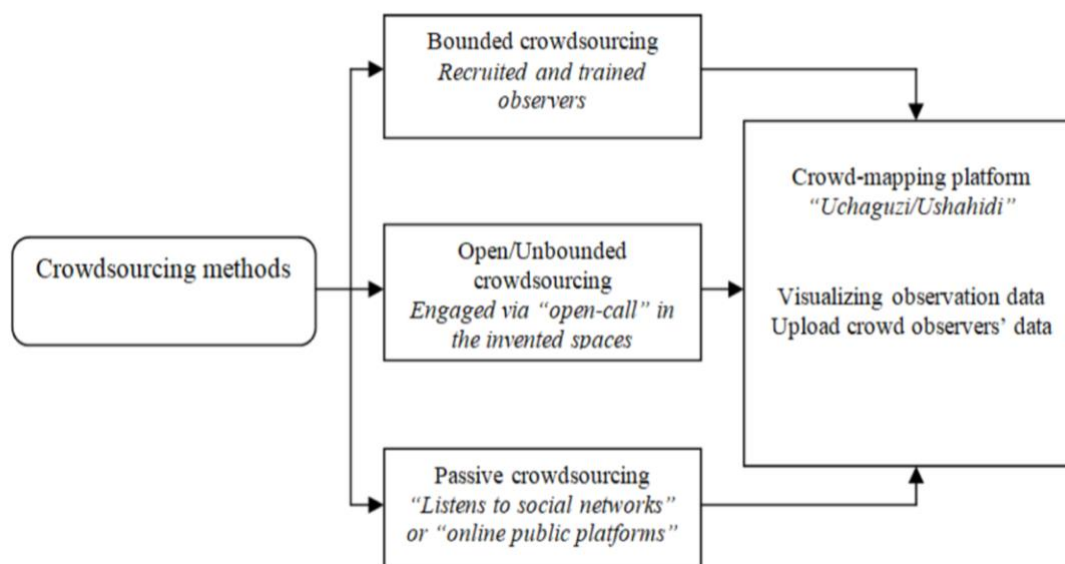
149. “Crowdsourcing Definition & Meaning,” Merriam-Webster. <https://www.merriam-webster.com/dictionary/crowdsourcing>.

150. Deodatus Patrick Shayo, “Citizen Participation in Local Democracy Online: A Snapshot of Trends and Challenges in Adoption of Crowdsourcing Methods in Tanzania,” *Journal of Social and Political Sciences* vol. 2:4 (2019): 855.

151. Shayo, “Citizen Participation in Local Democracy Online.” 855.

152. Shayo, “Citizen Participation in Local Democracy Online.” 855.

153. Shayo, “Citizen Participation in Local Democracy Online.” 855.



**Figure 3.3:** Multiple methods of crowdsourcing election observation utilized.<sup>154</sup>

Ushahidi’s customized election monitoring platform Uchaguzi was initially developed in collaboration with the Constitution & Reform Education Consortium (CRECO) in Kenya to monitor the 2010 Kenyan referendum.<sup>155</sup> Also, in 2010, Uchaguzi was implemented during the general election in Tanzania to supplement traditional election observation institutions through mapping crowdsourced reports of election irregularities. The dramatic narrowing of the CCM’s margin of victory during the 2010 election is a byproduct of Uchaguzi’s capacity to provide greater transparency into the electoral process by opening avenues for greater civil society and citizen engagement. Since then, Ushahidi has developed their strategy to extend beyond reactionary measures, “to proactively

154. Shayo, “Citizen Participation in Local Democracy Online.” 855.

155. Jennifer Chan, “Uchaguzi: A Case Study,” Harvard Humanitarian Initiative. <https://reliefweb.int/sites/reliefweb.int/files/resources/uchaguzi-121024131001-phpapp02.pdf>

[engage] with ordinary citizens and stakeholders to help foster transparency and accountability in elections across the globe.”<sup>156</sup>

While the 2010 election showed great promise, the 2015 general election proved to be even more instrumental in illustrating the affordances of ICTs and digital crowdsourcing for election monitoring and the impact that greater transparency can have on electoral outcomes. During the 2015 general election in Tanzania, the Tanzania Civil Society Consortium on Election Observation (TACCEO), under its Tanzania Election Observation Centre (TEOC), introduced two distinct Uchaguzi platforms: one for bounded crowdsourcing and another for unbounded crowdsourcing of election observation.<sup>157</sup>

*Uchaguzi Wetu 2015* was utilized as a platform for bounded crowdsourcing methods wherein data was collected by observers who were specifically trained for the purposes of data collection.<sup>158</sup> This platform was limited to those trained and “trusted” individuals as a means of collecting information about the election. *Uchaguzi Wetu 2015* was a joint project between TACCEO and Tanzania’s main domestic election monitoring organization, Tanzania Election Monitoring Committee (TEMCO).<sup>159</sup> However, this platform was not nearly as useful or accessible as TACCEO’s other digital crowdsourcing platform during the 2015 election that also utilized the Ushahidi platform: *Uchaguzi Tanzania 2015*. Through the *Uchaguzi Tanzania 2015* platform, anyone could submit eyewitness

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156. “Elections are important to Ushahidi,” Ushahidi.

157. Shayo, “Crowdsourcing and Digitization of Electoral Integrity,” 130.

158. Deobatus Patrick Shayo, “Crowdsourcing and Digitalization of Electoral Integrity: A Comparative Analysis of Kenya, Tanzania and Uganda,” in *CeDEM17: Proceedings of the International Conference for E-Democracy and Open Government*, ed. Peter Parycek and Noella Edelman (Austria: Danube University, 2017), 131.

159. Shayo, “Crowdsourcing and Digitization of Electoral Integrity,” 130.

observation reports throughout the election, utilizing the unbounded model of crowdsourcing.<sup>160</sup> In order to submit reports, citizens were able to use a wide variety of methods to funnel information into the Uchaguzi platform. Reports could be sent by:<sup>161</sup>

- SMS via 0758606162 or 0653775995
- iPhone or Android application
- Email via [uchaguziinfo@gmail.com](mailto:uchaguziinfo@gmail.com)
- Fill out web form on the Uchaguzi platform
- Twitter: @ChaguziTanzania or #TaarifazauchaguziTanzania
- Facebook page: “Taarifa Za Uchaguzi Tanzania”

Reporting incidents were then verified by a team of trained individuals and disseminated through the Ushahidi platform accessed via [www.uchaguzitanzania.or.tz](http://www.uchaguzitanzania.or.tz). In total, of the 6,598 reports received, 4,598 verified reports were mapped on the Uchaguzi platform during the 2015 general election.<sup>162</sup> Although the Uchaguzi geo-map is no longer available at that link as a result of platform reconstruction that began in early 2021, the verified crowdsourced reports mapped during the 2015 general election were visible online as such:

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160. Shayo, “Crowdsourcing and Digitization of Electoral Integrity,” 132.

161. Shayo, “Crowdsourcing and Digitization of Electoral Integrity,” 132.

162. LHRC and TACCEO, “Report on the United Republic of Tanzania General Elections of 2015,” (March 2016): 18.



**Figure 3.4:** Ushahidi software mapping election funneled into aggregate website found at

[www.uchaguzitanzania.or.tz](http://www.uchaguzitanzania.or.tz)<sup>163</sup>

Additionally, in collaboration with the Legal and Human Rights Center (LHRC), TACCEO created a variety of other online spaces for citizens to join in a digital community during the election. The website [www.uchaguzi.info.tz](http://www.uchaguzi.info.tz) served as a centralized location for the different digital tools created for the observation and monitoring of the election. By aggregating tools for the crowdsourcing of reports in combination with tools for receiving

163. Shayo, “Crowdsourcing and Digitization of Electoral Integrity,” 133. (Accessed by Shayo Jan 4, 2016).



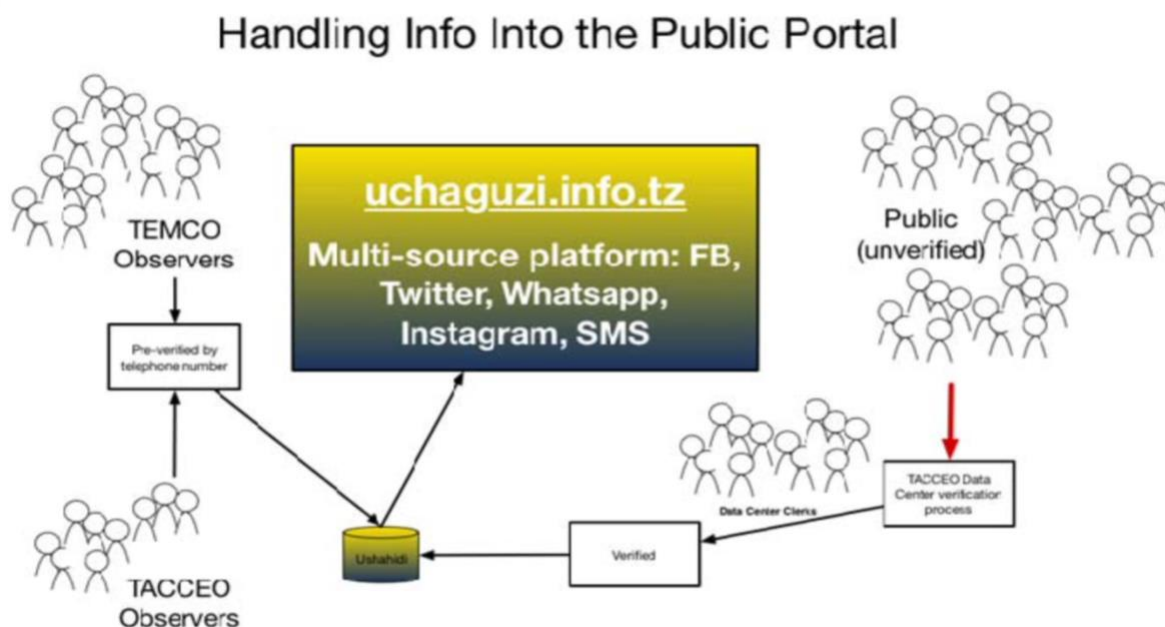
independent information about the election outside of traditional and state-controlled media, TACCEO created a more transparent electoral environment.



**Figure 3.5:** TACCEO’s aggregate Uchaguzi Tanzania 2015 platform.<sup>164</sup>

Through the aggregate platform, both bounded and unbounded crowdsourcing methods were utilized to share information about the election. L.H.R.C and TACCEO mapped the flow of information into the [www.uchaguzi.info.tz](http://www.uchaguzi.info.tz) platform:

164. Shayo, “Crowdsourcing and Digitization of Electoral Integrity,” 133. (Accessed by Shayo Jan 4, 2016).



**Figure 3.6:** Flow of information into [www.uchaguzi.info.tz](http://www.uchaguzi.info.tz) platform during 2015 general election.<sup>165</sup>

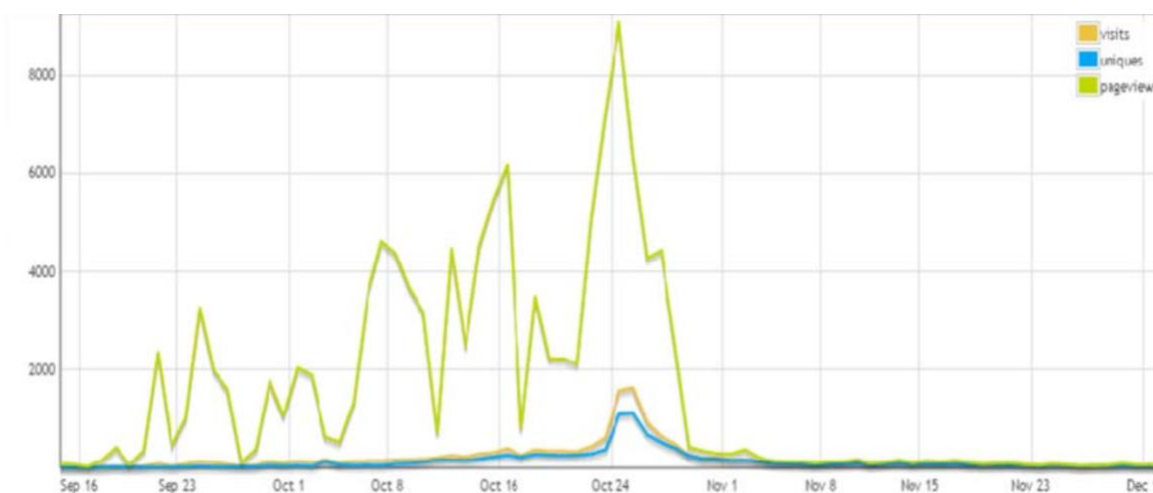
Ultimately, the platform was hugely successful in providing both the domestic as well as the international community with more transparent information about the election. It was reported that a minimum of 3.6 million users both in Tanzania and also in a variety of other countries across the globe interacted with the content supported by the [www.uchaguzi.info.tz](http://www.uchaguzi.info.tz) platform during the 2015 general election.<sup>166</sup> Data collected by TACCEO on the traffic of the Ushahidi map specifically illustrates that there was a fair amount of users present on the website in the lead up to the election, reaching a peak on the day of the election itself to share and receive information about incidents of electoral

165. LHRC and TACCEO, "Report on the United Republic of Tanzania General Elections of 2015," 19.

166. LHRC and TACCEO, "Report on the United Republic of Tanzania General Elections of 2015," 19.

irregularities.<sup>167</sup> LHRC and TACCEO mapped the platform traffic before, during, and after the October 25, 2015 election:

### Ushahidi Crowdmap Traffic (Sept 16 – Dec. 1, 2015)



**Figure 3.7:** Visits to the Ushahidi mapping platform between Sept. 16, 2015, and Dec. 1, 2015<sup>168</sup>

In an article for the organization Democracy in Africa, Alina Rocha Menocal notes that “In principle, ICTs can profoundly democratize the public sphere because they make it possible for everyone, not just those perceived to be elites, to contribute to and shape ongoing debates.”<sup>169</sup> In terms of election observation, this is crucial as traditional

167. LHRC and TACCEO, “Report on the United Republic of Tanzania General Elections of 2015,” 20.

168. LHRC and TACCEO, “Report on the United Republic of Tanzania General Elections of 2015,” 20.

169. Alina Rocha Menocal, “Digital Technologies and the New Public Square: Revitalising Democracy?: Democracy in Africa,” *Democracy in Africa*, last updated February 24, 2021  
<http://democracyinafrica.org/digital-technologies-and-the-new-public-square-revitalising-democracy/>.

international election observation has failed to restrict the increase in election fraud in countries like Tanzania. During the 2015 election, international election monitoring bodies were unable to evaluate the ways in which the CCM ultimately manipulated the election in their favor as they only observe election day itself rather than the campaign and election period.<sup>170</sup> Crowdsourced election observation further differs from traditional monitoring bodies in that the near-real-time mapping of incidents allows for greater citizen preparedness and engagement during the election period.<sup>171</sup>

The Uchaguzi platform helped contribute to the relative success of the opposition party during the 2015 election. Unfortunately, seeing the potential for digital technologies to promote democratic practices that strengthen political opposition, the CCM took reactive measures to limit the ability for citizens and activists to utilize ICTs for such ends. Ultimately, “Civil society’s traditional role of mobilizing citizens to participate in and engage with electoral processes in Tanzania was severely constrained in the 2020 election both by law and in practice.”<sup>172</sup> As a result of numerous technological and sociopolitical actions taken by the CCM between the 2015 election and the 2020 election, the Uchaguzi platform was not available during the 2020 general election.

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170. Tanzania Elections Watch, “Final Observations Report on the General Election Held in Tanzania on October 28, 2020,” (February 28, 2021): 24.

171. Shayo, “Crowdsourcing and Digitization of Electoral Integrity,” 7.

172. Tanzania Elections Watch, “Final Observations Report on the General Election Held in Tanzania on October 28, 2020,” 9.

## Countering Digital Democracy

Over the past two decades, the African continent has been home to some of the most rapid and widespread mobile phone adoption in the world. This ‘mobile revolution’ elicited excitement from many scholars early on, as it was initially believed that the mere presence of mobile phones would promote democracy throughout the region.<sup>173</sup> However, it has become increasingly evident that this early excitement was wrongly placed. Rather than widespread democratization, more and more countries on the continent are witnessing the use of digital tools to extend authoritarian practices into online spaces.<sup>174</sup>

First and foremost, digital autocrats seek to control the flow of information in order to manage perceptions and influence narratives. Secondly, digital autocrats seek to limit the population’s ability to communicate to restrict the circulation of opposing views.<sup>175</sup> As noted by scholar Charlotte Cross, the ways in which the Tanzanian ruling party has sought to control the flow of information around elections “can be understood in terms of the extension into online spaces of partisan policing practices that have underpinned the electoral dominance of CCM since the 1960s.”<sup>176</sup> Following the 2015 election in which the CCM won by its narrowest margin of victory, these policing efforts have increased demonstratively in scale.

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173. Sebastiana Etzo and Guy Collender, “Briefing: The Mobile Phone ‘Revolution’ in Africa: Rhetoric or Reality?” *African Affairs* vol. 109:437 (2010): 659-668.

174. Charlotte Cross, “Dissent as cybercrime: social media, security and development in Tanzania,” *Journal of Eastern African Studies* vol 15:3 (2021): 442.

175. Ronak Gopaldas, “Digital Dictatorship versus Digital Democracy in Africa,” South African Institute of International Affairs, Policy Insight 75 (October 2019), 4.

176. Cross, “Dissent as cybercrime,” 447.

Six months prior to the 2015 general election, then-President Jakaya Kikwete signed into law the Cybercrimes Act of 2015, initiating the first in a long series of pieces of legislation that have steadily chipped away at Tanzanians' digital rights and freedom of expression. On the surface, the law serves to protect the Tanzanian economy from cybercrimes that cost the economy nearly \$100 million yearly. However, the law also contains "broad clauses prohibiting dissemination of 'false, deceptive, misleading, or inaccurate information' or content 'intended to defame, threaten, abuse, insult' and gives police wide powers to seize electronic equipment" and has thus largely been used to police content online.<sup>177</sup> In practice, this language provides the government in power – the CCM – with the legislative tools necessary to determine what can and cannot be legally posted online and by whom. Taking this a step further, in 2018, Magufuli's government passed an amendment to the law requiring that all cybercafes install CCTV cameras.<sup>178</sup>

Along with the Cybercrimes Act, Kikwete enacted the Statistics Act of 2015. The Statistics Act criminalizes the publication of information – statistical or otherwise – "intended to invalidate, distort or discredit official statistics."<sup>179</sup> A subsequent 2018 amendment made it illegal for citizens to publish statistics without approval from the state's National Bureau of Statistics and imposed penalties with a minimum of three years

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177. Cross, "Dissent as cybercrime," 446.

178. Cross, "Dissent as cybercrime," 446.

179. Cross, "Dissent as cybercrime," 446.

imprisonment or a fine of \$4,451.<sup>180, 181</sup> However, due to international pressure, Magufuli walked back part of the amendment, enabling civil society groups to legally publish statistics of their own in 2019.<sup>182</sup> As Cross notes: “False information clauses in the Cybercrimes and Statistics Acts have been used to prevent independent collection, dissemination and interpretation of data that might contradict government narratives or threaten the ruling party, Chama Cha Mapinduzi’s (CCM), electoral success.”<sup>183</sup> During the 2015 general election itself, the CCM arrested 191 volunteers from the CCM’s main opposition party after being suspected of disseminating what the CCM deemed to be “inaccurate” election results via WhatsApp by citing the Cybercrimes Act and the Statistics Act.<sup>184</sup> Moreover, after the 2015 election, security services also raided the TACCEO’s data center at the LHRC, charging 36 people with the 2015 version of the Cybercrimes Act and confiscating 28 computers and 36 mobile phones.<sup>185</sup> As the TACCEO and the LHRC are non-partisan organizations, this was a strong move on the part of the CCM in response to the [www.uchaguzi.info.tz](http://www.uchaguzi.info.tz) platform.

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180. Oryem Nyeko, “Tanzania Drops Threat of Prison Over Publishing Independent Statistics: Amendment to Statistics Act a Step in Right Direction for Free Expression,” Human Rights Watch, last updated July 3, 2019 <https://www.hrw.org/news/2019/07/03/tanzania-drops-threat-prison-over-publishing-independent-statistics#>

181. Cross, “Cybercrime and the Policing of Politics in Tanzania,” 202.

182. Nyeko, “Tanzania Drops Threat of Prison Over Publishing Independent Statistics.”

183. Cross, “Dissent as cybercrime,” 447.

184. Cross, “Dissent as cybercrime,” 447.

185. Patrick Merloe, “Crackdowns on Citizen Election Monitors Reveal Authoritarian Fear,” Resurgent Dictatorship, last updated May 17, 2016.

<https://www.resurgentdictatorship.org/crackdowns-on-citizen-election-monitors-reveal-authoritarian-fear/>.

In 2018, with his sights set on the impending 2020 election, Magufuli replaced the Electronic and Postal Communications Act of 2010 with the much more robust and expansive Electronic and Postal Communications Online Content Regulations Act of 2018.<sup>186</sup> This law places sweeping regulations on an array of actors that contribute to the creation of online content, such as online content service providers, Internet service providers, users, etc.<sup>187</sup> Moreover, the law provides the state's Communications Authority with the power to determine who is given licenses to publish content online. Although, the \$900 yearly licensing fee for content creators like bloggers has already discouraged many from attempting to obtain a license. Publishing content online without such a license is classified as a criminal offense under the law.<sup>188, 189</sup> Prohibitive fees such as this serve to directly counteract the Internet's lowering of the cost barrier to participation in political discourse. Joy Chelagat, a Media Business Advisor for Africa at Internews, said: "While online media organizations have the potential of being alternative sources of impartial

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186. CIPESA, "Analysis of Proposed Amendments to Tanzania's Online Content Regulations 2021," Collaboration on International ICT Policy for East and Southern Africa (September 2021), 2.

187. CIPESA, "Analysis of Proposed Amendments to Tanzania's Online Content Regulations 2021," 2.

188. Human Rights Watch, "Tanzania: Freedoms Threatened Ahead of Elections: Authorities Crack Down on Opposition Parties, Rights Groups, Media," Human Rights Watch, last updated September 2, 2020 <https://www.hrw.org/news/2020/09/02/tanzania-freedoms-threatened-ahead-elections>

189. Nwachukwu Egbunike and Pernille Baerendtsen, "Will Tanzanian Bloggers Pay Up or Push Back Against 'Bloggers Tax'?" Global Voices, last updated April 12, 2018 <https://advox.globalvoices.org/2018/04/12/will-tanzanian-bloggers-pay-up-or-push-back-against-blogger-tax/>



reporting due to their ownership structures, recent state and regulator actions have caused some to shy away from content that may be deemed critical to the state.”<sup>190</sup>

After activists in Tanzania took to Twitter demanding the presence of an independent electoral commission leading up to the 2020 election, President Magufuli responded by adding an amendment to the 2018 law, which now explicitly prohibits “content that is involved in planning, organizing, promoting or calling for demonstration, marches or the like which may lead to public disorder.”<sup>191</sup> With each attempt taken by activists and citizens to use the opportunities afforded to them by digital technologies to push back against the state’s increasingly draconian regulation of the information ecosystem, the government reacts with the legislative tools at their disposal to strip away the potential for successful opposition campaigns. In his efforts to further reverse the narrowing trajectory of the CCM’s margin of electoral victory, prior to the 2020 election, Magufuli “effectively shut out independent election observation and monitoring by denying organizations and freezing the bank accounts of large civil society coalitions.”<sup>192</sup> International monitoring bodies such as the European Union (EU) were not permitted to observe the 2020 election.<sup>193</sup>

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190. Joy Chelagat, “The Impact of Digital Media Regulation – an East African Case Study,” Internews, January 25, 2021 <https://internews.org/story/impact-digital-media-regulation-east-african-case-study/>

191. Paradigm Initiative, “LONDA: Tanzania Digital Rights and Inclusion 2020 Report,” A Paradigm Initiative Publication (April 2021), 3.

192. Tanzania Elections Watch, “Final Observations Report on the General Election Held in Tanzania on October 28, 2020,” 7.

193. Deutsche Welle, “Tanzania Restricts Social Media during Election,” DW, last updated October 29, 2020. <https://www.dw.com/en/tanzania-restricts-social-media-during-election/a-55433057>.

Leading up to and during the 2020 general election, the CCM enacted a series of network disruptions to limit the ability of citizens to share information about the election. Magufuli instructed the Tanzanian Communications Regulatory Authority (TCRA) to take a series of measures:

<i>Platform shutdown</i>	Leading up to and during the election (specifically the night before), major communication platforms were blocked including WhatsApp, Twitter, Instagram, and Facebook <sup>194, 195, 196</sup>
<i>Website blocking</i>	Websites reporting on election fraud and other election-related events were blocked <sup>197</sup>
<i>Internet Throttling</i>	Leading up to the election, it was reported that the government slowed down Internet connection to minimize citizen's ability to access information <sup>198, 199</sup>
<i>SMS shutdown</i>	The TCRA was instructed to shut off bulk SMS and bulk voice calls from October 24, 2020 until November 11, 2020 <sup>200, 201</sup>

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194. The World staff, "Tanzania's Internet Restrictions during Election Are 'despicable,' Digital Rights Activist Says," The World, last updated October 28, 2020.

<https://theworld.org/stories/2020-10-28/tanzanias-internet-restrictions-during-election-are-despicable-digital-rights>.

195. Welle, "Tanzania Restricts Social Media during Election."

196. Tanzania Elections Watch, "Final Observations Report on the General Election Held in Tanzania on October 28, 2020," 10.

197. The World staff, "Tanzania's Internet Restrictions during Election Are 'despicable,' Digital Rights Activist Says."

198. The World staff, "Tanzania's Internet Restrictions during Election Are 'despicable,' Digital Rights Activist Says."

199. GV Sub-Saharan Africa, "Internet Throttling, SMS Blocking in Days Leading up to Election in Tanzania," Global Voices, last updated October 27, 2020.

<https://globalvoices.org/2020/10/27/internet-throttling-sms-blocking-in-days-leading-up-to-election-in-tanzania/>.

200. GV Sub-Saharan Africa, "Internet Throttling, SMS Blocking in Days Leading up to Election in Tanzania."

201. Tanzania Elections Watch, "Final Observations Report on the General Election Held in Tanzania on October 28, 2020," 41.

<i>Content filtering</i>	It was reported that the government ordered the TCRA to filter and censor keywords related to the election and opposition candidates leading up to and during the election <sup>202</sup>
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Although unable to take any counter measures to the network disruptions, platforms able to measure network connectivity in Tanzania during the election shared information:



**Figure #:** Twitter Public Policy reports network disruption of their platform in Tanzania.<sup>203</sup>

202. GV Sub-Saharan Africa, "Internet Throttling, SMS Blocking in Days Leading up to Election in Tanzania."

203. Welle, "Tanzania Restricts Social Media during Election."

**NetBlocks** @netblocks

Confirmed: Widespread disruption to social media registered across #Tanzania on eve of elections; high impact to Twitter, WhatsApp, Instagram and Google services on Vodacom, Airtel, Tigo, Halotel and Zantel; incident ongoing 🇹🇿 #TanzaniaElections2020

[netblocks.org/reports/intern...](https://netblocks.org/reports/intern...)

AS	ISP	Region	Service	Status	Impact
AS327885	Halotel	Tanzania	Webmail	DOWN	25%
AS327885	Halotel	Tanzania	Content CDN	DOWN	24%
AS327885	Halotel	Tanzania	Content CDN	DOWN	39%
AS327885	Halotel	Tanzania	Website	DOWN	40%
AS327885	Halotel	Tanzania	Mobile API	DOWN	10%
AS327885	Halotel	Tanzania	Photo/Video Upload	DOWN	11%
AS327885	Halotel	Tanzania	Website	DOWN	7%
AS327885	Halotel	Tanzania	Backend	DOWN	30%
AS37035	Tigo	MIC-AS	Mobile API	DOWN	0%
AS37035	Tigo	MIC-AS	Content CDN	DOWN	0%
AS37035	Tigo	MIC-AS	Photo/Video Upload	DOWN	0%
AS37035	Tigo	MIC-AS	Backend	DOWN	10%
AS37035	Tigo	MIC-AS	Website	DOWN	0%
AS37035	Tigo	MIC-AS	Registration	DOWN	25%
AS37035	Tigo	MIC-AS	Website	DOWN	18%
AS37035	Tigo	MIC-AS	Webmail	DOWN	14%
AS37035	Tigo	MIC-AS	Backend	DOWN	25%
AS36908	Vodacom	VTL-ASN	Registration	DOWN	39%
AS36908	Vodacom	VTL-ASN	Webmail	DOWN	13%
AS36908	Vodacom	VTL-ASN	Backend	DOWN	10%
AS36908	Vodacom	VTL-ASN	Content CDN	DOWN	0%
AS36908	Vodacom	VTL-ASN	Content CDN	DOWN	38%
AS36908	Vodacom	VTL-ASN	Mobile API	DOWN	0%
AS36908	Vodacom	VTL-ASN	Website	DOWN	0%
AS36908	Vodacom	VTL-ASN	Photo/Video Upload	DOWN	0%
AS36930	Zantel	Zantel-AS	Mobile API	DOWN	0%
AS36930	Zantel	Zantel-AS	Website	DOWN	0%
AS36930	Zantel	Zantel-AS	Backend	DOWN	2%
AS36930	Zantel	Zantel-AS	Webmail	DOWN	15%
AS36930	Zantel	Zantel-AS	Content CDN	DOWN	0%
AS36930	Zantel	Zantel-AS	Backend	DOWN	10%
AS36930	Zantel	Zantel-AS	Photo/Video Upload	DOWN	0%
AS36930	Zantel	Zantel-AS	Registration	DOWN	14%
AS36930	Zantel	Zantel-AS	Content CDN	DOWN	33%
AS36930	Zantel	Zantel-AS	Website	DOWN	7%

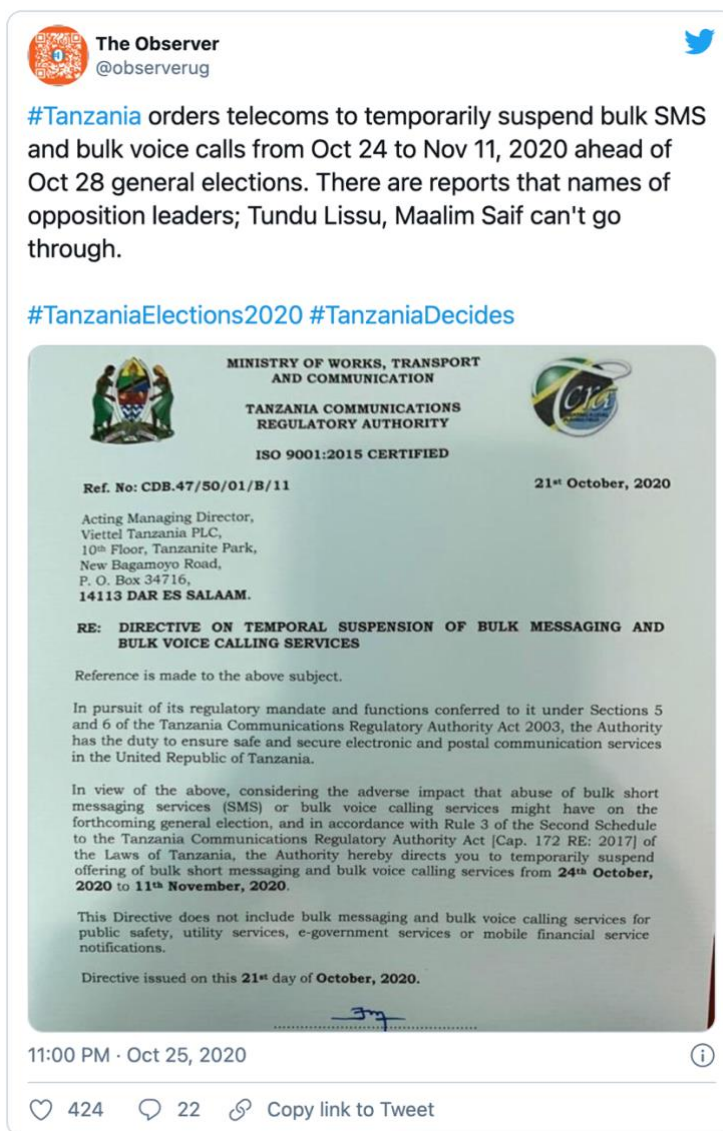
8:03 AM · Oct 27, 2020

997 53 Copy link to Tweet

Tweet your reply

**Figure #:** Independent Internet monitoring organization, NetBlocks, shares information on Twitter about network disruptions during the 2020 election.<sup>204</sup>

204. "Internet disrupted in Tanzania on eve of general elections," NetBlocks, last updated October 27, 2020. <https://netblocks.org/reports/internet-disrupted-in-tanzania-on-eve-of-presidential-elections-oy9abny3>



**Figure #:** Ugandan media outlet, *The Observer*, reports on the suspension of bulk SMS and voice calls near the 2020 general election in Tanzania.<sup>205</sup>

The Electronic and Postal Communications (Online Content) Regulations of 2020 provide the TCRA with the legal ability to block and filter content but not the ability to

205. GV Sub-Saharan Africa, "Internet Throttling, SMS Blocking in Days Leading up to Election in Tanzania."

enact a full network shutdown.<sup>206</sup> However, these partial measures, in concert with the legislative measures enacted between the 2015 and 2020 elections, have created an environment of self-censorship in which citizens fear the potential consequences of voicing their true opinions in digital spaces.<sup>207</sup> The resulting effect is that civil society organizations and citizens are limited not only by state laws but also by a “pervading sense of paranoia.”<sup>208</sup> As a result, the CCM has risen back to its original position of power, winning the 2020 election with 80% of the vote as “Severe government suppression has left the political opposition, civil society, and media weakened, undercutting an effective domestic countermove.”<sup>209</sup>

## Conclusion

Over the past two decades, there has been a significant amount of missed placed optimism about the potential for digital technologies to transform governance in Sub-Saharan Africa. As has been made evident throughout both case studies, the transformative impact of digital technologies depends on people. Despite Uchaguzi’s innovative approach to electoral accountability, the absence of robust support

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206. GV Sub-Saharan Africa, “Internet Throttling, SMS Blocking in Days Leading up to Election in Tanzania.”

207. Khamis Mutwafi, “What Google Trends Data Can Tell Us About the Tanzanian Election,” *Democracy in Africa*, last updated December 11, 2020. <http://democracyinafrica.org/what-google-trends-data-can-tell-us-about-the-tanzanian-election/>.

208. James Marchant, Tom Ormson, Ashnah Kalemera, Juliet Nanfuka Nakiyini, Wairagala Wakabi, et. al. “Safeguarding Civil Society: Assessing Internet Freedom and the Digital Resilience of Civil Society in East Africa.” *Small Media, CIPESA, Digital Defenders, and CIPIT*, (2017): 67.

209. Marielle Harris, “A No-Confidence Vote in Tanzania’s Upcoming,” *Center for Strategic and International Studies*, last updated October 26, 2020. <https://www.csis.org/analysis/no-confidence-vote-tanzanias-upcoming-elections>.

mechanisms for digitally enabled advocacy left civil society organizations without the capacity to operate under increasingly repressive contexts.

## CHAPTER 4: LIMITING FACTORS AND OPPORTUNITIES

As the cases of Egypt and Tanzania illustrate, the tension between non-democratic states and the potential for digital technologies to promote democratic practices is not straightforward. Deibert and Rohozinski provide a clear and impactful articulation of this notion:

Rather than being an ungoverned realm, cyberspace is perhaps best likened to a gangster-dominated version of New York: a tangled web of rival public and private authorities, civic associations, criminal networks, and underground economies. Such a complex network cannot be accurately described in the one-dimensional terms of ‘liberation’ or ‘control’ any more than the domains of land, sea, air, or space can be. Rather, it is composed of a constantly pulsing and at time erratic mix of competing forces and constraints.<sup>210</sup>

The case studies in this thesis enable the identification of a series of limiting factors contributing to the narrowing potential for digital technologies in democratic advocacy. However, these case studies also allow for the identification of strategic opportunities for the international community, civil society, local activists, private sector companies, technologists, and citizens to engage in the promotion of digital rights that enable digital technologies to promote democratic practices under non-democratic regimes-- alongside the identified limiting factors.

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210. Ronald Deibert and Rafal Rohozinski, “Liberation vs. Control: The Future of Cyberspace,” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 20-21.



This clash between repressive states and liberation technologies is not new in nature but rather part of a larger perennial global battle for freedom.<sup>211</sup> While non-democratic regimes are pushing back against the potential of liberation technologies, there are responsive step that can be taken in order to reclaim digital technologies as tools for democratization. However, as agreed by Diamond “it is not technology, but people, organizations, and governments that will determine who prevails.”<sup>212</sup>

## Limiting Factors

### *1. The failure of the international community*

As non-democratic states have usurped digital technologies for their own benefit, violating citizen’s digital rights in the process, the international community has failed to respond. In seeing that their actions lack consequences, regimes have become more brazen in their efforts to clamp down on the potential for digital technologies to promote democratic practices. Action by the international community in response to digital rights violations is crucial to the sustainability of democracy on a global scale as “accountability structures work via incentives that, in turn, depend on the possibility of sanctioning.”<sup>213</sup> Absent such incentives, other regimes will continue to replicate the actions of states like Egypt and Tanzania.

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211. Larry Diamond, “Liberation Technology,” in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 16.

212. Diamond, “Liberation Technology,” 16.

213. Steven Livingston, “Conclusion,” in *Bits and Atoms: Information and Communication Technology in Areas of Limited Statehood*, ed. Steven Livingston and Gregor Walter-Drop (London: Oxford University Press, 2014), 161.

When the UN General Assembly adopted the Universal Declaration of Human Rights (UDHR) in 1948, it was the first-time international consensus had been used to outline a concrete series of fundamental human rights that should be protected and promoted on a universal basis.<sup>214</sup> Today, UDHR is the foundation upon which all international laws and standards rest.<sup>215</sup> While by definition a declaration is not binding, declarations such as UDHR do hold states to certain aspirational standards.<sup>216</sup> It should be the responsibility of the international community to hold countries accountable for such human rights obligations.

With respect to digital rights – which are merely human rights in the digital realm<sup>217</sup> – there are two crucial Articles that directly relate to the potential for digital technologies to promote democratic practices under non-democratic regimes.<sup>218</sup>

- Article 12: “No one shall be subjected to **arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation.** Everyone has the right to the protection of the law against such interference or attacks.”<sup>219</sup>

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214. UN General Assembly, "Universal Declaration of Human Rights," 217 (III) A (Paris, 1948).

215. “Universal Declaration of Human Rights,” Amnesty International <https://www.amnesty.org/en/what-we-do/universal-declaration-of-human-rights/>

216. “Glossary,” United Nations Treaty Collection, [https://treaties.un.org/Pages/Overview.aspx?path=overview/glossary/page1\\_en.xml#declarations](https://treaties.un.org/Pages/Overview.aspx?path=overview/glossary/page1_en.xml#declarations)

217. Rosamond Hutt, “What are your digital rights?” World Economic Forum, last updated November 13, 2015 <https://www.weforum.org/agenda/2015/11/what-are-your-digital-rights-explainer/>

218. Bolding of text was included for emphasis and is not present on UDHR document

219. UN General Assembly, "Universal Declaration of Human Rights."

- Article 19: “Everyone has the right to **freedom of opinion and expression**; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and **regardless of frontiers**.”<sup>220</sup>

Apart from Article 12 and 19, which protect more specific digital rights related issues, it is imperative that three other Articles are promoted for digital rights to matter for the promotion of democratic practices.

- Article 20: “Everyone has the right to **freedom of peaceful assembly and association**”<sup>221</sup>
- Article 21: “The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and **genuine elections** which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.”<sup>222</sup>
- Article 30: “Nothing in this Declaration may be interpreted as implying for any State, group or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.”<sup>223</sup>

In 2016, the UN took explicit action to address digital rights under UDHR by passing a resolution on “the promotion, protection, and enjoyment of human rights on the

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220. UN General Assembly, "Universal Declaration of Human Rights."

221. UN General Assembly, "Universal Declaration of Human Rights."

222. UN General Assembly, "Universal Declaration of Human Rights."

223. UN General Assembly, "Universal Declaration of Human Rights."

Internet.”<sup>224</sup> As part of this resolution, the Human Rights Council (HRC) provided 15 recommendations of which several are central to the potential for digital technologies to promote democratic practices under non-democratic regimes.

- “*Affirms* that the same rights that people have offline must also be protected online, in particular freedom of expression, which is applicable regardless of frontiers and through any media of one’s choice, in accordance with articles 19 of the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights”<sup>225</sup>
- “*Calls upon* all States to address security concerns on the Internet in accordance with their international human rights obligations to ensure protection of freedom of expression, freedom of association, privacy and other human rights online, including through national democratic, transparent institutions, based on the rule of law, in a way that ensures freedom and security on the Internet so that it can continue to be a vibrant force that generates economic, social and cultural development.”<sup>226</sup>
- “*Condemns unequivocally* all human rights violations and abuses, such as torture, extrajudicial killings, enforced disappearances and arbitrary detention, expulsion, intimidation and harassment, as well as gender-based violence, committed against

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224. UN General Assembly, "The promotion, protection and enjoyment of human rights on the Internet," A/HRC/32/L.20 (Geneva, 2016).

225. UN General Assembly, "The promotion, protection and enjoyment of human rights on the Internet."

226. UN General Assembly, "The promotion, protection and enjoyment of human rights on the Internet."

persons for exercising their human rights and fundamental freedoms on the Internet, and calls on all States to ensure accountability in this regard.”<sup>227</sup>

- “*Condemns unequivocally* measures to intentionally prevent or disrupt access to or dissemination of information online in violation of international human rights law and calls on all States to refrain from and cease such measures.”<sup>228</sup>

While UDHR is non-binding, the International Covenant on Civil and Political Rights (ICCPR) is a binding agreement. The ICCPR includes key articles from UDHR: ICCPR Article 17 is UDHR Article 12, ICCPR Article 19 is UDHR Article 19, and ICCPR Article 21 is UDHR Article 20.<sup>229</sup> To date, 173 countries have either ratified or accepted accession to the ICCPR. This includes Egypt which ratified the ICCPR on January 14, 1982, and Tanzania which accepted accession to the ICCPR on June 11, 1976.<sup>230</sup> However, action has not been taken by the international community for violations of ICCPR with respect to digital rights. In 2019, a report by the Human Rights Council asserted that “network shutdowns are a clear violation of international law and cannot be justified in any circumstances.”<sup>231</sup> Both Egypt and Tanzania have thus clearly violated international law as

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227. UN General Assembly, "The promotion, protection and enjoyment of human rights on the Internet."

228. UN General Assembly, "The promotion, protection and enjoyment of human rights on the Internet."

229. UN General Assembly, "International Covenant on Civil and Political Rights," 2200 (XXI) A (New York, 1966).

230. UN General Assembly, "International Covenant on Civil and Political Rights."

231. "Internet shutdowns and elections handbook," Access Now, last updated April 2021 <https://www.accessnow.org/internet-shutdowns-and-elections-handbook/>

per the ICCPR for their respective Internet shutdowns, yet no action has been taken as of writing.

The ICCPR's First Optional Protocol (ICCPR-OP1) is the only real enforcement mechanism available to hold states accountable for violations. While the treaty is legally binding, for countries like Tanzania who have opted out of OP1, meaningful consequences for violations don't exist.<sup>232</sup> Hypothetically, the treaty allows for the recognition of inter-state complaints but only in cases where both states have agreed to accept such complaints.<sup>233</sup> Although this feature is largely insignificant as the Human Rights Council (HRC), the UN body who would process such claims, has never received an inter-state complaint regarding ICCPR violations.<sup>234</sup> The HRC can censure states they deem to be committing human rights abuses. However, they have been hesitant to do so in recent years, enabling UN member states with poor human rights records to proceed without interference.<sup>235</sup> While the censuring of states does not necessarily mean anything in concrete terms, it does provide an avenue for potential action. Human Rights Watch's UN Representative, Joanna Weschler, has said that the HRC's lack of action in this respect is tantamount to "a frontal attack on one of the most effective human rights tools: the naming and shaming of human rights violators."<sup>236</sup> Not only should censures be exercised more

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232. "Treaty Bodies Treaties," TreatyBody, OHCHR.

[https://tbinternet.ohchr.org/\\_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=186&Lang=EN](https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=186&Lang=EN).

233. OHCHR, "Civil and Political Rights: The Human Rights Committee: Fact Sheet No 15 (Rev. 1)," 27.

234. OHCHR, "Civil and Political Rights," 27.

235. "U.N.: Many Countries Escape Censure," Human Rights Watch, last updated April 19, 2002. <https://www.hrw.org/news/2002/04/19/un-many-countries-escape-censure>.

236. U.N.: Many Countries Escape Censure," Human Rights Watch.

seriously by the HRC, but censures should be paired with specific actionable responses or leaders on the international stage should respond to by imposing targeted sanctions on states censured by the HRC in response to ICCPR violations.

In September 2021, the Biden administration took a small step for the U.S. in terms of global leadership on the matter by cutting military aid to Egypt in half (releasing \$130 million of the typical \$300 million) on account of human rights violations (of which digital rights make up a small part). Since coming to power in 2013, General Sisi has not faced any retribution by the U.S. for his human rights record until now. However, as Bobby Ghosh said in an opinion piece for *The Washington Post*, “at best, Biden is slapping Sisi with a wet noodle”<sup>237</sup> as the withheld direct financial support is only a small fraction of the total military aid allocated to Egypt by the U.S. every year and will likely have little impact on Sisi’s actions regarding human rights abuses.<sup>238</sup> 19 civil society organizations came together to voice their conviction that this insubstantial slap on the wrist effectively “gives license to the Egyptian government to continue perpetrating egregious human rights violations without fear of repercussions.”<sup>239</sup> As a leader on the international stage, the United States must do more to hold governments accountable for ICCPR violations and nonobservance of UDHR standards.

Ultimately, the issue is not with the current international human rights standards set about by the UN as they are robust and comprehensive. Rather, as Access Now’s Executive

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237. Bobby Ghosh, “Joe Biden Get (Not Too) Tough on Egypt,” *The Washington Post*, last updated September 16, 2021 [https://www.washingtonpost.com/business/joe-biden-gets-not-too-tough-on-egypt/2021/09/16/e8588d86-16c4-11ec-a019-cb193b28aa73\\_story.html](https://www.washingtonpost.com/business/joe-biden-gets-not-too-tough-on-egypt/2021/09/16/e8588d86-16c4-11ec-a019-cb193b28aa73_story.html)

238. Ghosh, “Joe Biden Get (Not Too) Tough on Egypt.”

239. Ghosh, “Joe Biden Get (Not Too) Tough on Egypt.”

Director, Brett Solomon, said in December of 2020, “Our problem is once again application and implementation. And this is where there has been failure and will continue to do so unless we move fast, firm, and honestly.”<sup>240</sup>

## 2. *Private sector companies profit from digital authoritarianism*

In the past two decade, a highly profitable commercial market for digital censorship and surveillance technologies has emerged. As a response to the needs of non-democratic regimes seeking to suppress the ability of digital technologies to promote democratic practices, private sector companies have innovated highly specialized technologies—in effect, exporting digital authoritarian capabilities to any state willing to pay.<sup>241</sup>

The most notorious among these private sector companies is the Israeli firm NSO Group and the set of surveillance tools that fall under the umbrella of their Pegasus Project. Between 2016 and 2021, Pegasus spyware has been found in over 46 different countries, targeting thousands of journalists, activists, opposition leaders, lawyers, and diplomats.<sup>242, 243</sup> Following Saudi Arabia’s killing of journalist Jamal Khashoggi in 2018,

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240. Brett Solomon, “Can human rights survive the digital age? Only if we do these things,” Access Now, last updated December 10, 2020

<https://www.accessnow.org/human-rights-in-the-digital-age/>

241. Adrian Shahbaz and Allie Funk, “Freedom on the Net 2021,” Freedom House (2021) <https://freedomhouse.org/report/freedom-net/2021/global-drive-control-big-tech>

242. Access Now Team, “Two years after Khashoggi’s slaying, no accountability for spyware firm or Saudi government,” Access Now, last updated October 1, 2020

<https://www.accessnow.org/khashoggi-two-years-later/>

243. Access Now Team, “From India to Rwanda, the victims of NSO Group’s WhatsApp hacking speak out,” Access Now, last updated December 17, 2020

<https://www.accessnow.org/nso-whatsapp-hacking-victims-stories/>



it was found that Pegasus had been sold to Saudi Arabia and had been used to track and spy on Khashoggi leading up to his killing.<sup>244</sup>

In addition to NSO Group, Allot is another Israeli firm profiting from digital authoritarianism. Ahead of Tanzania's 2020 general election, the Tanzania Communication Regulation Authority (TCRA) required that the country's telecommunications operators and its internet service providers install Allot's Internet filtering tool in order to censor digital content prior to the election.<sup>245</sup> However, Israel's NSO Group and Allot are not the only perpetrators. The UK's Gamma Group, Italy's Hacking Team, Germany's FinFisher, and the French firm Amesys have each sold various censorship and surveillance technologies to regimes seeking to thwart dissent.<sup>246, 247</sup> Western governments can help by enacting restrictions or regulations on the sale and purchase of such technologies emerging within their own borders.<sup>248, 249</sup>

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244. Access Now Team, "Two years after Khashoggi's slaying, no accountability for spyware firm or Saudi government."

245. Felicia Anthonio, Bridget Andere, and Sage Cheng, "Tanzania is weaponizing internet shutdowns. Here's what its people have to say," Access Now, last updated December 16, 2020 <https://www.accessnow.org/tanzania-internet-shutdowns-victim-stories/>

246. Nathaniel Allen and Matthew La Lime, "How digital espionage tools exacerbate authoritarianism across Africa," Brookings Institution, Tech Stream, last updated November 19, 2021 <https://www.brookings.edu/techstream/how-digital-espionage-tools-exacerbate-authoritarianism-across-africa/>

247. Shahbaz and Funk, "Freedom on the Net 2021."

248. Larry Diamond, "Liberation Technology," in *Liberation Technology: Social Media and the Struggle for Democracy*, ed. Larry Diamond and Marc F. Plattner (Maryland: The Johns Hopkins University Press and the National Endowment for Democracy, 2012), 15.

249. It is important to note that companies within liberal democracies are not the only ones developing such technologies. Both China and Russia have been instrumental in the development and dissemination of censorship and surveillance technologies exported to other non-democratic states. Countries like the U.S. could play a role here as well by

Apart from companies themselves, investment firms in digital hubs like Silicon Valley are profiting from digital authoritarianism. Prior to being purchased by the San Francisco-based private equity firm Francisco Partners Management LLC, Sandvine Inc. refused to sell their deep packet inspection tools to repressive regimes.<sup>250</sup> In an interview with *Bloomberg*, Sandvine’s co-founder Don Bowman explained that they were concerned with the actions that such sales could result in: “what that could lead to—we’re talking about journalists vanishing, whistleblowers put in jail...we didn’t want to be part of that.”<sup>251</sup> Following Sandvine’s sale in 2017, Bowman and others were replaced and the decision to refrain from such sales was reversed in favor of potential profits.<sup>252</sup> Countries like Egypt have been identified as purchasing Sandvine’s deep packet inspection software.<sup>253</sup> Sandvine was not Francisco Partners’ first foray into the world of digital authoritarianism as they had previously held ownership in NSO Group.<sup>254</sup>

### *3. It has become easier and less costly to restrict the flow of information*

As the information is crucial to the promotion of democratic practices, regimes seeking to prevent such actions attempt to obstruct the flow of information. The digital era

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starting negotiations focused on mitigating exports of technologies that perpetuate digital authoritarianism.

250. Ryan Gallagher, “Silicon Valley Investment Firm Profits From Surveillance States,” *Bloomberg Businessweek*, last updated January 26, 2021

<https://www.bloomberg.com/news/features/2021-01-26/private-equity-firm-francisco-partners-profits-from-surveillance-censorship>

251. Gallagher, “Silicon Valley Investment Firm Profits From Surveillance States.”

252. Gallagher, “Silicon Valley Investment Firm Profits From Surveillance States.”

253. Gallagher, “Silicon Valley Investment Firm Profits From Surveillance States.”

254. Access Now Team, “Two years after Khashoggi’s slaying, no accountability for spyware firm or Saudi government.”

has provided states with an increasing number of tools to interfere with the digital information environment. Internet shutdowns have been a favorite tool of states attempting to limit the potential for digital technologies to promote democratic practices. However, it is no longer necessary for regimes to cut off access to the entire network. Rather, regimes can now take a series of smaller, less economically and politically troublesome shutdown measures that are nonetheless detrimental to the flow of information.

Types of network disruptions utilized by non-democratic regimes to mitigate the potential for digital technologies to promote democratic practices: there is currently no universal consensus on the specific terminology regarding the various types of network disruptions utilized by non-democratic states, the definitions below incorporate and rely on the general understanding among international civil society organizations (clarifying terminology: internet shutdown, network shutdown, network disruption, etc.)

- *Blanket Internet shutdowns*: refer to shutdowns in which the entire Internet is shut off and inaccessible<sup>255</sup>

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255. "Internet Disruption: Different Terms for Different Tactics," Global Voices Advox, last updated January 8, 2020. <https://advox.globalvoices.org/2020/01/08/internet-disruption-different-terms-for-different-tactics/>.

- *Partial or platform-specific shutdowns*: refer to situations in which some apps and websites “targeted while other websites are still available for use.”<sup>256, 257, 258</sup>
- *Mobile network (SMS) shutdowns*: refer to the intentional shutdown of mobile data<sup>259</sup>
- *Internet throttling*: “refers to the intentional limitation of bandwidth which can be translated into a limitation on the speed with which a set amount of data can move.”<sup>260</sup>

Each type of network disruptions can be utilized by regimes to achieve different ends as each provides its own unique cost-benefit calculation. Regimes can also decide to enact types of shutdowns on a national or regional scale.<sup>261</sup> Full network blackouts are incredibly costly for states but are most effective in achieving the end goal. While partial shutdowns and Internet throttling are less detectable and therefore less costly, they are less successful

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256. “Internet Disruption: Different Terms for Different Tactics,” Global Voices Advox, last updated January 8, 2020. <https://advox.globalvoices.org/2020/01/08/internet-disruption-different-terms-for-different-tactics/>.

257. Marianne Diaz Hernandez, Rafael Nunes, Felicia Anthonio, and Sage Cheng, “#KeepItOn Update: Who Is Shutting down the Internet in 2021?” Access Now, last updated June 7, 2021. <https://www.accessnow.org/who-is-shutting-down-the-internet-in-2021/>.

258. Samuel Woodhams and Simon Migliano, “The Global Cost of Internet Shutdowns,” Top10VPN, last updated November 29, 2021. <https://www.top10vpn.com/cost-of-internet-shutdowns/>.

259. Jigsaw, “The Internet Shutdowns Issue,” *The Current* no. 4 (2021) <https://jigsaw.google.com/the-current/shutdown/>

260. “Internet Disruption: Different Terms for Different Tactics,” Global Voices Advox.

261. Staff, “Governments Bear the Responsibility to End Internet Shutdowns,” Robert F. Kennedy Human Rights, last updated August 12, 2021.

<https://rfkhumanrights.org/press/governments-bear-the-responsibility-to-end-internet-shutdowns>.

in suppressing democratic advocacy. Moreover, partial, or platform-specific shutdowns have increasingly been used to not only target specific liberation technologies like social media platforms, but also circumvention tools and VPNs like Tor.

As seen notably in the case of Tanzania, and increasingly in Egypt, among other non-democratic states, the use of Parks and Thompson's slow shutdown which refers to "an ensemble of regulatory mechanisms implemented over time, which have the effect of shutting down – whether by prohibiting, interrupting, or making too costly – online content creation, including blogging, alternative news production, public archiving, and user-generated content" is hugely impactful.<sup>262</sup> By pursuing network shutdowns through this method, the legal justification for shutdowns becomes harder for activists and the international community to dispute. Forcing ISPs and Telcos to install censorship and surveillance technologies, hand over subscriber data, and participate in network disruptions by nationalizing sectors or threatening licensing agreements provides regimes with the ability to exercise control over the flow of information.<sup>263</sup> Moreover, the economic component of the slow shutdown phenomenon as presented by Parks and Thompson serves to directly counter the potential of digital technologies brought about by the lowered cost of collective action and organization they enable.

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262. Lisa Parks & Rachel Thompson, "The Slow Shutdown: Information and Internet Regulation in Tanzania From 2010 to 2018 and Impacts on Online Content Creators," *International Journal of Communication* vol. 14 (2020): 4289.

263. Staff, "Governments Bear the Responsibility to End Internet Shutdowns."

*4. The importance (and difficulty) of advocacy follow through under current conditions*

As was made apparent by the trajectory of change following the Egyptian Revolution, “while enhancing access to information is vital, it is not sufficient to effect change.”<sup>264</sup> Even under the best of conditions, the advancement of democratic practices under non-democratic regimes requires sustained effort for digitally enabled change to become engrained within society.<sup>265</sup> In 2013, Joseph Siegle wrote that: “the emergence of ICT is not synonymous with greater accountability. Other steps in the process are required, not least of which is the emergence of civil society organizations that can sustain a reform campaign over the extended period that genuine change usually requires.”<sup>266</sup> However, the extended reform campaigns that Siegle argues are required for durable change are not without cost. Local activists and civil society organizations face a myriad of obstacles, both in terms of financial barriers and increasingly in terms of technological and sociopolitical obstacles from the state itself. As repressive regimes continue to shrink civic space and increase the physical dangers associated with any form of opposition, international civil society organizations can lend financial support to local activists and grass-roots efforts to develop and carry out sustained efforts to strengthen the potential for digital technologies to promote democratic practice.

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264. Joseph Siegle, “ICT and Accountability in Areas of Limited Statehood,” in *Bits and Atoms: Information and Communication Technology in Areas of Limited Statehood*, ed. Steven Livingston and Gregor Walter-Drop (London: Oxford University Press, 2014), 72.

265. Siegle, “ICT and Accountability in Areas of Limited Statehood,” 72.

266. Siegle, “ICT and Accountability in Areas of Limited Statehood,” 73.

## Opportunities

### *1. The economic and human cost of suppressing the flow of information*

It is extremely costly for governments to restrict the flow of information in terms of economic growth as a lack of connectivity effectively shuts down the domestic economy and negatively impacts international trade.<sup>267</sup> Between January 1, 2019, and the time of writing (November 29, 2021), network disruptions have cost the global economy an estimated \$16.9 billion.<sup>268</sup> The blanket Internet shutdown enacted by Mubarak during the Egyptian Revolution is widely considered the starting point in a long series of costly efforts to suppress the flow of information by regimes across the globe. While it very difficult to measure the economic cost of network disruptions, it is estimated that Egypt's five-day blanket shutdown in 2011 cost \$18 million per day for a total of \$90 million.<sup>269</sup> Throughout the course of Tanzania's 2020 general election, the country experienced a total of 432 hours of network disruption which cost the domestic economy \$27.5 million and affected 14.7 million users.<sup>270</sup> However, the periods of network disruption in Egypt and Tanzania cost menial amounts when compared with the longer and more persistent network disruptions experienced under other regimes. In June of 2019, Sudan experienced a one-month long shutdown that cost the country over \$1 billion which is equivalent to almost 1% of the

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267. "The economic impact of disruptions to internet connectivity," Deloitte, (2016). <https://globalnetworkinitiative.org/wp-content/uploads/2016/10/GNI-The-Economic-Impact-of-Disruptions-to-Internet-Connectivity.pdf>

268. Woodhams and Migliano, "The Global Cost of Internet Shutdowns."

269. Parmy Olson, "Egypt's Internet Blackout Cost More Than OECD Estimates," Forbes, last updated February 3, 2011.

<https://www.forbes.com/sites/parmyolson/2011/02/03/how-much-did-five-days-of-no-internet-cost-egypt/?sh=34f6043f4d49>.

270. Woodhams and Migliano, "The Global Cost of Internet Shutdowns."

country's total GDP.<sup>271</sup> In 2020, network disruptions in India totaled 8,927 hours, costing an estimated \$2.5 billion.<sup>272</sup> Activists and civil society organizations can use the detrimental global and domestic economic costs of network disruptions to pressure the international community to act as well as to discourage the use by repressive regimes.

However, the cost of network disruptions goes beyond the macro amounts of economic loss. For those already under economic distress or living in a country that is experiencing an economic crisis, network disruptions only serve create greater strain.<sup>273</sup> More broadly, network disruptions disproportionately impact vulnerable communities already at a disadvantage. The detrimental effect that network disruptions have on sectors of the economy reliant on mobile payment systems disproportionately impacts businesses in the informal economy which is largely made up of women as well as impoverished rural communities and small business owners.<sup>274,275</sup> For those living in areas with limited access to health services, digital technologies such as the Internet and mobile phones are a crucial tool through which to communicate with physicians and locate necessary treatments.

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271. "Policy Brief: Internet Shutdowns," Internet Society, last updated December 18, 2019. <https://www.internetsociety.org/policybriefs/internet-shutdowns/>.

272. Woodhams and Migliano, "The Global Cost of Internet Shutdowns."

273. Felicia Anthonio, Alexia Skok, and Marianne Diaz Hernandez, "Voices from Tigray: Ongoing Internet Shutdown Tearing Families, Communities, Businesses Apart," Access Now, last updated September 13, 2021. <https://www.accessnow.org/voices-from-tigray-ongoing-internet-shutdown-tearing-families-communities-businesses-apart/>.

274. Sandra Aceng, "The Impact of Internet shutdowns on Women in Uganda," Internews, OPTIMA (August 2021): 2.

275. Felicia Anthonio, Bridget Andere, and Sage Cheng, "Shutdown Victim Stories: Tanzania Is Weaponizing Internet Shutdowns," Access Now, last updated December 16, 2020. <https://www.accessnow.org/tanzania-internet-shutdowns-victim-stories/>.



During network disruptions, the lack of connectivity can prove to be life or death.<sup>276,277</sup> Additionally, researchers have found that network disruptions serve to interfere with education by limit learning potential and access to scholarship opportunities.<sup>278</sup> Through raising awareness about the true cost of network disruptions, activists and civil society organizations can provide proactive and reactive information to better equip local communities to combat and respond to network disruptions.

## 2. Success of online/offline combination

In studying cases of peaceful and sustained digitally enabled movements, Muzammil Hussain and Philip Howard identify four distinct stages to successful protest:

- *Preparation phase*: “involving activists’ use of digital media across time to build solidarity networks and identification of collective identities and goals; an ignition phase involving symbolically powerful moments that ruling elites and regimes intentionally or lazily ignored, but galvanized the public.”<sup>279</sup>
- *Pro-test phase*: “during which, by employing offline networks and digital technologies, small groups strategically organized on large numbers; an

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276. Khattab Hamad, “The Socio-Economic Impact of the Internet Shutdown in Sudan,” *Internews, OPTIMA* (August 2021): 11.

277. Prince Kudakwashe Madziwa, “Effects of network disruptions on health service delivery among private practicing physicians in Bulawayo Metropolitan Province, Zimbabwe,” *Internews, OPTIMA* (August 2021): 21.

278. Hamad, “The Socio-Economic Impact of the Internet Shutdown in Sudan,” 12.

279. Muzammil M. Hussain and Philip N. Howard, “Information Technology and the Limited States of the Arab Spring,” in *Bits and Atoms: Information and Communication Technology in Areas of Limited Statehood*, ed. Steven Livingston and Gregor Walter-Drop (London: Oxford University Press, 2014): 18.

international buy-in phase, during which digital media networks extended the range of local coverage to international broadcast networks.”<sup>280</sup>

- *Climax phase*: “during which the regime maneuvered strategically or carelessly to appease public discontent through welfare packages or harsh repressive actions.”<sup>281</sup>
- *Follow-on information warfare phase*: “during which various actors, state-based and from international civic advocacy networks, compete to shape the future of civil society and information infrastructure that made it possible.”<sup>282</sup>

Importantly, Hussain and Howard’s framework combines both online and offline components in the development and execution of successful movements. Other scholars and researchers have made similar conclusions. Through capitalizing on the differing affordances of online and offline collective action, activist networks increase communication and widen participation.<sup>283</sup>

Particularly in the age of digital authoritarianism, it has become increasingly important for digitally enabled collective action to include offline elements. As technology is merely a facilitatory tool and cannot enact change on its own, the impact hinges on the user. Established, offline activist networks using digital technology to increase participation in collective action are best positioned to reap the benefits of the tools

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280. Hussain and Howard, “Information Technology and the Limited States of the Arab Spring,” 19.

281. Hussain and Howard, “Information Technology and the Limited States of the Arab Spring,” 19.

282. Hussain and Howard, “Information Technology and the Limited States of the Arab Spring,” 19.

283. Alina Rocha Menocal, “Digital Technologies and the New Public Square: Revitalising Democracy?” *Democracy in Africa*, last updated February 23, 2021. <http://democracyinafrica.org/digital-technologies-and-the-new-public-square-revitalising-democracy/>.

available. When faced with network disruptions, movements are more likely to withstand the regime’s attempt to quell mobilization if they are “reinforced by organized movements that serve as a backstop.”<sup>284</sup> International civil society organizations can provide established local activist networks and advocacy groups with the skills and tools necessary to advance the potential for digital technology to promote democratic practice within their own communities.

### *3. Potential to use technical solutions to counter digital authoritarianism*

In the past five years, the development of specific digital tools that enable the circumvention of censorship, surveillance, and network disruptions have provided activists and citizens more broadly with the capacity to continue benefiting from the potential for digital technologies to promote democratic practices under non-democratic regimes. VPNs and platforms that enable end-to-end encryption are forms of circumvention tools that restore the affordances of anonymity to the information ecosystem. David Kaye, the former UN Special Rapporteur for freedom of express explains that:

Both encryption and anonymity are fundamental to creating the privacy and security necessary for free thought and expression. But too often they are described as tools used by criminals and terrorists. While bad people and actors will always make use of these tools, as with any morally neutral technology, the reality is, activists, journalists, artists, and even law enforcement officials around the world depend on encryption and sometimes anonymity to protect themselves and their important work.<sup>285</sup>

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284. Jan Rydzak, Moses Karanja, and Nicholas Oppiyo, “Dissent Does Not Die in Darkness: Network Shutdowns and Collective Action in African Countries,” *International Journal of Communication* vol. 14 (2020): 4273.

285. Alberto Cerda Silva, “Protecting Free Speech in the Digital Age: Q&A with UN Special Rapporteur for Freedom of Expression,” Ford Foundation, last updated October 11, 2016. <https://www.fordfoundation.org/just-matters/just-matters/posts/protecting-free-speech-in-the-digital-age-qa-with-un-special-rapporteur-for-freedom-of-expression/>.

As a response to the expansion of state's surveillance capabilities, platforms that support encryption have become the preferred method through which activists operate. However, popular encryption-based platforms like WhatsApp have increasingly been among the first platforms blocked during network disruptions.<sup>286</sup> Tor, a popular VPN, has also been added to the common platforms blocked during shutdowns in recent months.<sup>287</sup> It is crucial that technologist partner with activists to develop circumvention tools that function during network disruptions without compromising data privacy. Without the ability to operate, civil society and activist organizations cannot reliably continue to fight the rise of digital authoritarianism.

#### *4. Targeted advocacy and strategic engagement*

Rakesh Rajani, a Tanzanian civil society leader and founder of the organization Twaweza, was quoted saying, "Technology does not drive anything. It creates new possibilities for collecting and analyzing data, mashing ideas and reaching people, but people still need to be moved to engage and *find practical pathways to act*."<sup>288</sup> The greatest pathway toward action against efforts to mitigate the potential for digital technology to promote democratic practice is to find and identify areas for purposeful action offline.

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286. Anthony Cuthbertson, "WhatsApp Worst Hit by Internet Shutdowns," *The Independent*, last updated January 8, 2020. <https://www.independent.co.uk/life-style/gadgets-and-tech/news/whatsapp-down-outage-internet-shutdown-latest-update-a9275301.html>.

287. "Research Reports and Blog Posts," OONI: Open Observatory of Network Interference, <https://ooni.org/post/>.

288. Thomas Carothers, "Why Technology Hasn't Delivered More Democracy," *Foreign Policy*, last updated June 3, 2015. <https://foreignpolicy.com/2015/06/03/why-technology-hasnt-delivered-more-democracy-democratic-transition/>.

Through targeted advocacy campaigns, strategic local engagement, and legal action, a variety of actors can partake in combating the rise of digital authoritarianism.

Access Now's #KeepItOn campaign is a global movement seeking to end the use of Internet shutdowns, and is an example of a successful targeted advocacy campaign. #KeepItOn utilizes an organized global coalition of 243 organizations from 105 countries to document, report, and provide support to anyone involved in the fight against Internet shutdowns.<sup>289</sup> Resources like the #KeepItOn Advocacy Toolkit expand the success of the movement as it utilizes a skills-based approach to expanding participation and provides much needed resources to individuals and organizations navigating dynamics such as how to continue election-related advocacy campaigns during an Internet shutdown.<sup>290</sup> #KeepItOn has also been instrumental in the success of recent legal action against network disruptions. Namely, the 2019 decision by Zimbabwe's High Court that the government had acted illegally when it shut down the Internet in response to opposition protests in January of 2019.<sup>291, 292</sup> Moreover, Access Now and other civil society organizations and activists utilize the success of the #KeepItOn hashtag and branding to raise awareness about issues related to digital rights and Internet shutdowns such as the wrongful imprisonment of activists, journalists, and opposition leaders. In particular, the momentum and far-reach

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289. "#KeepItOn: Fighting Internet Shutdowns around the World," Access Now. <https://www.accessnow.org/keepiton/>

290. "#KeepItOn: Fighting Internet Shutdowns around the World," Access Now.

291. MacDonald Dzirutwe, "Zimbabwe Court Says Internet Shutdown Illegal as More Civilians Detained," *Reuters*, last updated January 21, 2019.

<https://www.reuters.com/article/us-zimbabwe-politics/zimbabwe-court-says-internet-shutdown-illegal-as-more-civilians-detained-idUSKCN1PF11M>.

292. Rydzak, Karanja, and Oppiyo, "Dissent Does Not Die in Darkness," 4273.

of this type of global coalition is critical in the lead up to major events like elections when digital rights violations are more frequent.

## CONCLUSION

The potential for digital technologies to empower citizens to mobilize for greater accountability in governance, whether in response to corruption and police brutality or to unfair elections, continues to develop as new innovative platforms like Ushahidi grow in number by the day. At the same time, the ability for repressive regimes to utilize those very same technologies to suppress the flow of information and shrink civic space has become increasingly more advanced and subtle. Through seeking to reclaim agency over the fate of digital technology, this thesis examines the potential for digital technology to promote democratic practice under non-democratic regimes.

Firstly, a framework for conceptualizing the complex and dynamic intersection of technology's liberatory potential and its repressive affordances was developed. In affirming that technologies possess both primary and secondary uses, in which society rather than the inventor creates the conditions for secondary uses, it was argued that the very same technologies that give voice to democratic activists living under authoritarian rule can and are being harnessed by their oppressors. Importantly, it is not the technologies themselves, but people, organizations, and governments that will determine if democratic or autocratic norms prevail.

This framework was applied to the cases of Egypt and Tanzania to examine the ways in which digital technology's liberating potential can be directly co-opted by the state as a response to democratic advocacy. The case studies illustrated a parallel set of technological and socio-political actions taken by states, all which were entirely reactive in nature. Based on these findings, a concrete series of limiting factors and opportunities contributing to the potential for digital technology to promote democratic practice under

non-democratic regimes was identified. By using the limiting factors and opportunities identified in this thesis, it was found that deliberate action can be taken to promote a right-respecting digital framework that utilizes multi-lateral, cross-sectoral approaches to global governance and digital rights— even under the current limiting conditions

However, as it stands, there is a huge inequality in who gets to participate. In particular, the digital gender divide poses significant obstacles to the realization of this potential, as enormous portions of the global population are left out of digitally enabled democratic practice. If the digital gender divide can begin to shrink, and more women – particularly young women – are able to gain the skills necessary to participate in the digital world, the potential for digital technology to promote democratic practice under non-democratic regimes is not just for those of us with optimistic tendencies.



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December 16, 2020 <https://www.accessnow.org/tanzania-internet-shutdowns-victim-stories/>

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