

Enter the dragon: The impact of China's digital authoritarianism on democracy in Africa

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Abstract

An emerging discourse contends that China has become a willing collaborator for digital technology abuse through substantial investments in Africa's digital infrastructure, thus leaving digital power at the discretion of unstable African governments. However, it is unclear whether Chinese companies are willing collaborators with autocratic regimes in advancing China's model of digital authoritarianism in the African continent. Despite the need to better understand the changing dynamics of China's role in aiding authoritarian regimes through digital technologies, research that responds to these concerns remains empirically understudied and under-conceptualised. The central question this paper addresses is: How does China's model of digital authoritarianism affect autocratic politics and the trajectory of authoritarian regimes in Africa? The article's primary objective is to investigate allegations that China is promoting its internet model, which includes censorship and restrictions, through digital investments in African countries. A related aim is to examine how African governments have abused their digital infrastructure to undermine their electoral processes and roll back democratic gains made since the early 1990s. In grappling with these concerns, part of this paper's contribution is to explore critical practices and meanings of power that appear to have produced trajectories towards digital authoritarianism in Africa. The paper's main departure point is the proposition that democratic rollbacks can be only partially understood by tracing China's digital footprints on the continent. The article finds proliferating discourses that China is exporting an authoritarian digital authoritarianism model to Africa misleading. Instead, the evidence suggests that African autocracies are exploiting the adoption of China's model of the internet to roll back democratic gains through surveillance and censorship of civil liberties.

Keywords: African governments; authoritarian regimes; China; digital authoritarianism; Digital Silk Road (DSR); democracy; digital Infrastructure; Internet sovereignty; internet freedom, censorship; surveillance; Sino-Africa relations; soft power; hegemony.

Introduction

Since the collapse of the Soviet Union in 1991 and the ascendance of the United States (US) and its allies as a hegemonic global power bloc, considerable pressure has been brought to bear on nations of the Global South to hasten the democratisation and liberalisation of their political economies. Africa has been the youngest continent, compared to other developing regions, to journey to liberal democracy (Plattner, 1991). For some countries on the continent, the journey began belatedly in the last decade of the 20th century; for others, authoritarian regimes persisted well into the 21st century

despite a sharp increase in the number of democracies since the wave of independence from colonialism gripped the continent during the late 1950s and 1960s. (Lynch & Crawford, 2011). By the time the Washington Consensus, designed to compel developing countries to reform and liberalise, was adopted by developed countries in 1991, most African nations were still struggling to rid themselves of one-party military dictatorships and sovereign debt that had been incurred during the period of International Monetary Fund (IMF) debt-equity swaps in the 1970s and, through the 1980s, Structural Adjustment Programmes. To put that in perspective, the Economist Intelligence Unit's (EIU's) Democracy Index estimates that around that time, Africa had 21 democracies and 23 authoritarian regimes (EIU, 2022, pp. 55-56). The index categorised democracies into 'full', 'flawed', and 'hybrid' based on indicators such as electoral processes and pluralism, functioning of government, political participation, political culture, and civil liberties. Mauritius was the only Sub-Saharan African country ranked as a full democracy. There were six flawed democracies, including Ghana, South Africa, Botswana, and Namibia, and 14 hybrid democracies.

Some interpretations view data such as this as a symptom and harbinger of corrupt governments. At the same time, an emerging body of literature contends that, for some time now, China has been aiding flawed and hybrid democracies through substantial investments in Africa's digital economy and is thus a willing collaborator for digital technology abuse. The persistence of these contrasting narratives is unsurprising given the limited evidence to date on the connection between China's digital infrastructure investments in Africa and their political consequences. Mapping the inner logic and practices of digital authoritarianism in Africa is not a straightforward accounting of China's model of transnational repression or, in the Chinese definition of the model, 'capitalism with Chinese characteristics'. Despite the need to better understand the changing dynamics of China's role in aiding authoritarian regimes and some incumbent governments in flawed African democracies, research that responds to these challenges remains empirically understudied and under-conceptualised. The central question this paper addresses is: How does China's model of digital authoritarianism affect autocratic politics and the trajectory of digital authoritarian regimes in Africa? The paper's primary objective is to investigate allegations that China is promoting its internet model, which includes censorship and restrictions, through digital investments in African countries. A related concern is whether China's model of the internet is rolling back democratic gains in African countries through technology.

Part of the contribution of this paper, then, is to trace the multilayered ways and critical practices of power that have produced trajectories in Africa towards digital authoritarianism. Our starting point is the proposition that democratic rollbacks can be only partially understood from the digital footprints of China's technological investment on the continent. To put this line of inquiry into practice, the article draws on the digital authoritarian perspective developed by Schlumberger et al. to examine the extent to which African governments, threatened by the spectre of electoral defeat, have abused their digital infrastructure to undermine electoral processes and roll back democratic gains that had been made since the early 1990s (Schlumberger et al., 2023). This helps us identify areas in Africa where authoritarian regimes are affected by the adoption of technology-induced transformations. The findings are consistent with the proposition that there is a positive relationship between digital abuse and autocratic governments in Africa. The rest of the paper is organised as follows. Section 2 presents a model for our empirical strategy and interpretation. Section 3 traces the evolution of Sino-Africa relations. Section 4 explores China's digital imprints in Africa, while Section 5 assesses their impact on autocratic regimes. Section 6 draws on interviews and extant literature to determine if the deployment of digital infrastructure in African countries is motivated by China's export of its model of digital authoritarianism in Africa or whether African governments have usurped technologies to impose repression. Section 7 concludes and suggests a way forward.

Theoretical and empirical foundations

The analytical framing of this study springboards off the concept of digital authoritarianism, which is the use of digital information technology by authoritarian regimes to surveil, repress, and manipulate domestic and foreign populations (Polyakova & Meserole, 2019). In this perspective, the relationship between digital technology and China's motives in Africa is central to the very conceptualisation of digital authoritarianism. The original definition, advanced by Polyakova & Meserole (2019), pivots around how major businesses create digital technology to control and dominate important digital ecosystems, highlighting the centrality of its adoption and implementation in Africa. Accordingly, digital authoritarianism is: "the use of digital information technology by authoritarian regimes to surveil, repress, and manipulate domestic and foreign populations ..." (Polyakova & Meserole, 2019, p. 1).

This conceptualisation gave rise to a question about contemporary times that is a significant challenge to the Global South: whether, over the last decade, China's promotion of its model of the internet in Africa is developmental and democratic or whether it is rolling back democratic gains in African countries through technology. Different sub-streams of theory have been used in our understanding of the nature of digital authoritarianism in Africa and whether it is Chinese transnational repression. Some commentators have been insistent that China is an active collaborator in fomenting digital repression through the export of its model of digital authoritarianism; others have concluded that the phenomenon is more likely an African problem. Resolving this disagreement is particularly difficult because the two possible manifestations of authoritarianism in Africa lack the theoretical and empirical embeddedness necessary to assess the strategic agendas behind the deployment and adoption of digital technologies. Determining which assessment is more likely correct requires focused analytical attention on an appropriate tool of analysis.

In their seminal paper, "How authoritarianism transforms: A framework for the study of digital dictatorship", Schlumberger et al. offered an analysis of digital authoritarianism that resonates with how digitalisation is being instrumentalised in African countries today (Schlumberger et al., 2023). "Informational autocrats," they argued, "base their rule on the manipulation of information (instead of on terror and ideology)" (Schlumberger et al., 2023, p. 2). At the core of their analysis is a conceptual model for understanding how the internet, described as "repression technology" in autocracies, functions as a tool for digital surveillance that "leads to more targeted repression, which in turn reduces dictators' costs of co-option" (Schlumberger et al., 2023, p. 2). In considering the contemporary salience of this emerging literature to a mode of analysis in Africa, the central building block of the approach undertaken in this paper is its distinction between authoritarian methods of control of African government by digital means and the long-term strategic ambitions of China's digital investments.

In this paper, the perspective broadly consists of three main components: (a) promoting the Chinese model of "internet sovereignty" in African countries, (b) exporting authoritarian surveillance technologies to African states, and (c) deploying artificial intelligence and data mining techniques across Africa (Gwagwa & Garbe, 2018). Taken together, the three components form the key pillars of the intellectual ambition of this paper: to investigate allegations that China is advancing a repressive agenda in Africa through its model of the internet. This approach is pertinent because it moves research beyond abstract inquiry to confer a "locus and nexus between the digital in China and the dictator in Africa" (Schlumberger et al., 2023, p. 2). As Schlumberger et al. have argued, "Only by considering the dictator's overarching logic of power maintenance that guides policies can we comprehend *why* and to *what effect* dictators employ *what means* to stay in power ... By starting from the logic of authoritarian rule, digitisation becomes clear as an intervening variable rather than being mistaken

for an independent in some causal vacuum” (Schlumberger et al., 2023, p. 2).

We first outline the ontology of digital authoritarianism and its evolution on a meta-level. This step is based on recent literature on China’s model of digital authoritarianism. Clarifying China’s model of digital authoritarianism and outlining the context of Sino-African relations and its impact on Africa provided a thematic foundation to interrogate the evolving relationship with supporting data from research articles and interviews on China’s growing influence in Africa and the impact of its burgeoning digital footprint on governance and democracy. The data sources referred to in this article consist of a combination of contextual surveys on the state of democracy on the African continent from Freedom House, the Democracy Index of the Economist Intelligence Unit, the Afrobarometer report, as well as academic literature, policy papers, and authoritative media reports and news articles on digital authoritarianism, the Belt and Road Initiative (BRI) and the Digital Silk Road (DSR).

The empirical data comprises qualitative semi-structured interviews with African policymakers and experts in China-Africa relations. The primary sampling goal in selecting a member of parliament was to furnish a first-hand account of how Chinese digital investments shape the work of African policymakers and the democratic space in general. An additional interview was conducted with an expert in China-Africa relations with more than a decade of experience analysing China-Africa issues in the international media space. Semi-structured interviews allowed interviewees to elaborate on issues as they arose in discussion. The overall approach allowed us both to focus on some of the key existing and potential concerns for the continent of Chinese digital authoritarianism and to assess the prospects for greater control of the digital landscape by African countries.

The ontology of China’s digital authoritarianism

Even with the ubiquity of digital technology in countries like Russia and the US as tools for population-wide censorship and surveillance domestically and internationally, China is a unique case. State control of digital technology under Xi Jinping’s leadership of the Chinese Communist Party (CCP) has, over the past two decades, established what Polyakova & Meserole described as the most sophisticated model of digital authoritarianism (Polyakova & Meserole, 2019). In scholarly attempts to grapple with the phenomenon, emerging discourses that underpin liberal agendas typically invoke a dichotomised development-authoritarian lens. Framed in terms of techno-nationalism, the most widely held perspective holds that the model of China’s internationalisation flows directly from its domestic origins as a “tech-enabled autocracy” (Ingster, 2016). In sharp contrast to official Chinese narratives on digital technology as an enabler within its borders of ‘social trust’ and ‘development’ and, internationally, as ‘capitalism with Chinese characteristics’ that have come to dominate official Chinese policy discourses over the past two-plus decades, it is helpful to trace a brief genealogy of the concept of digital authoritarianism - and its salience in emerging critiques - that foreshadows how we will bring them together in the analytical framing of this article.

According to Tubman, Beijing’s information technology policy originates from Deng Xiaoping’s reform period, when digital technology became a significant force, in line with Deng’s goal of opening up China’s economy internationally and maintaining social order domestically, behind economic development as well as a means of retaining and even expanding political power, (Tubman, 1998). A still expanding scholarship has in recent years advanced the idea of Chinese digital authoritarianism as a constitutive process by which China’s digitalisation process is being driven domestically by both private companies and the state’s strategic initiatives. Particularly noteworthy of this process in both the private sector and society are the ‘Social Credit System’ and the ‘Made in China 2025’ policies.

Announced in 2014, the Social Credit System was designed to encourage Chinese citizens to protect social trust in every aspect of their lives. The Chinese Communist Party (CCP) believed it could monitor and surveil organisational and individual behaviour by exploiting surveillance technology and big data to maintain social order. The framework rewarded and punished citizens through a points system based on their actions or inactions (Lilkov, 2020, p. 33).

By 2025, the “Made in China 2025” industrial policy – a techno-protectionism policy in all but name - became the foundational instrument aimed at “raising the ratio of China’s domestic core technologies and essential industries through subsidies and investment funds by 2025” (Ito, 2019, p. 54). The policy combination of protectionism, import substitution, and state financing advanced a model of techno-nationalism aimed at prohibiting foreign social media platforms and large tech businesses from entering the Chinese market and propping up Chinese big Tech giants as pivotal cogs in China’s digital authoritarian model. Not only are Chinese big Tech companies required by law to cooperate in matters of national security and intelligence, but many social media platforms, including Facebook, YouTube, Google, and Wikipedia, are restricted or banned from accessing Chinese markets. In this way, Beijing has worked to censor online information in a version of cyber sovereignty. Domestically, China is home to the most extensive surveillance network in the world, with over 200 million closed-circuit television (CCTV) cameras installed in public areas nationwide. Chinese nationals are the subject of massive data collection projects that involve biometric and face scans, internet communications, travel, and health data, among other things (Khalil, 2020, pp. 10-11). Artificial intelligence systems contextualise and synthesise the gathered data to monitor and forecast citizen behaviour. The two central monitoring systems, SkyNet and Sharp Eyes operationalise this pervasive and highly networked surveillance system (Polyakova & Meserole, 2019, p. 4).

The Xinjiang area, where the Uighur Muslim minority is subject to intense monitoring and control, is a dystopian illustration of China’s surveillance state. With a single click of the mouse, data from several surveillance cameras is gathered to identify individuals who may threaten ‘social trust’ or ‘national security’ (Leibold, 2020). Internationally, the “Great Firewall,” a system of hardware and software that establishes what information is allowed and disallowed (Creemers, 2020), is notorious for blocking foreign internet resources and mobile applications and placing onerous compliance conditions on international companies doing business in China (Griffiths, 2022). Complementing this model with empirical evidence, we see how articulating China’s hegemonic market logic to its ostensibly developmental ambitions is shaping a new digital authoritarianism in several developing countries. In recent years, an emerging body of literature derived from liberal internationalist discourse has weighed in on the dynamics of China’s aggressive drive to export its model of digital authoritarianism. In the Chinese government’s attempt to decompress and corral its digital infrastructure investments in developing countries around a series of hegemonic adjustments and into a narrative of “capitalism with Chinese characteristics”, some scholars contend that various developing countries have either become casualties of China’s deployment of extra-economic coercion or the expansion of new market spheres that the Chinese state, through state-controlled ICT companies, seeks to capture.

Thus, what was initially instrumentalised under China’s one-party state as a digital means of population-wide surveillance, including a variety of measures which violate freedom of expression and the right to privacy, like targeting dissident voices, internet filtering practices, and blocking access to ICTs, is being aggressively re-articulated and re-mapped onto developing countries in East Asia, Latin America, and Africa (Polyakova & Meserole, 2019). Particularly noteworthy is the instrumentalisation of the Digital Silk Road (DSR) - a vital component of the Belt and Road Initiative (BRI) - in influencing the development of cyber norms and standards regarding global Internet governance (Crosston,

2020). As the ideological, social and economic articulation of China's internationalisation strategy, Chinese investments in digital infrastructure are, thus, far more than an abstract right to internet access that digital infrastructure theoretically embodies; it is both an ideological and political terrain and a systemic challenge since internationalisation inevitably presupposes recontouring and harmonising the social and political limits of freedom and development. Behind this phenomenon are the distinct technology-driven playbooks for authoritarian rule.

The evolution of Sino-African relations

China and Africa share a common ideological background in their opposition to colonialism and imperialism. Between 1895 and the end of the Second World War, China faced violent invasion and partial colonisation by Japan (Paine & Paine, 2003). The defeat of Japan by the Allied powers that marked the end of the war inaugurated a civil war in China between Communists and Nationalists, resulting in four years of strife and the subsequent triumph of communism (Eastman et al., 1991). Around the same time, various African countries battled for liberation from colonial rule. Many African national liberation movements were radical and, in sharp contrast with the capitalist ideals of colonial powers in European metropolises, embraced ideals similar to China's socialism (Verhoeven, 2020). The 1955 Africa-Asia Conference at Bandung, Indonesia, prefigured China's earnest involvement in Africa. Beijing saw the Bandung conference as a unique opportunity to meet the newly formed nations of Asia and Africa, woo them with its anti-colonial credentials, showcase itself as a revolutionary model of self-reliance, and lobby for Asian-African unification. As Yu (1977) notes, China's foreign policy towards Africa has been characterised by three fundamental constants since its inception: the export of the "Chinese model", the fight against the superpowers, and China's Third World policy.

During the colonial era, China actively backed African liberation movements with military and logistical support (Segal, 1992). In Rhodesia (now Zimbabwe), China approved the liberation movement led by Robert Mugabe against the regime of Ian Smith (Legum, 1975). There are other examples of China's backing of liberation movements, including the Pan-African Congress (PAC) in South Africa, that laid the foundations for closer ties between China and Africa today. Not only did the Chinese support liberation movements but there were also deliberate efforts to start economic partnerships with the continent beyond colonialism. One example is the Tanzania Zambia Railway Authority, which links the Southern African regional transport network to East Africa's seaport of Dar es Salaam in Tanzania (Monson, 2013, page number). The 1000-plus mile railway was built by the Chinese in the 1970s, shortly after Tanzania's independence, to provide a badly needed import and export zone for Zambia because it could no longer access South Africa's ports (Yu, 1975).

In those early days, China's presence was marked by lavish infrastructure projects, often with little economic development. Along the coastal countries of West Africa, one can still find huge Olympic-style stadiums that were built with Chinese donations. Throughout the 1970s and 1980s, China provided technical expertise, doctors, scholarships, and various forms of aid, all the while pursuing a policy of non-interference, which meant that China would not act in a way that sought to foster regime change in African countries (Mawdsley, 2007). For a while, the benefits of the relationship were mutual. In 1971, African countries overwhelmingly voted to give China official member status in the United Nations (UN) (Zezeza, 2014). An elated Mao Zedong remarked, "It was our fellow developing countries that 'carried' the People's Republic of China into the United Nations" (Times, 2021). And so was anti-colonial support the first instance of Sino-African solidarity.

During the 1980s through the 1990s, China pursued an open-door policy in Africa, which meant

that foreign investment in China occurred on the back of China's low-wage labour, resources, and investment incentives. As a result, foreign companies flocked to China in search of profit. Whatever China lost in low wages, it compensated with technology transfers. Against this background and beneath the surface of a discursive relationship between China and Africa, the Chinese government set out to leave even bigger footprints on the continent in the 21st century. Two decades after China's marketisation, the country was rapidly emerging as an economic powerhouse; the government needed to look outside for investment opportunities and natural resources. China turned to Africa as a new frontier for its global expansion. However, the Chinese were not in Africa to win diplomatic support. Purely economic ambitions drove China's Africa play. In 2000, when the Forum for China-Africa Cooperation (FOCAC) was established in Addis Ababa, Chinese leadership started to engage African countries in a more focused and strategic way at the Head of State level. In this way, FOCAC has since acted as a vehicle through which Sino-African relations were strengthened (Naidu, 2002).

The speed and scale of China's entry into African markets are in trade data: bilateral trade flows between China and the African continent soared to approximately US\$40 billion in 2005, an eight-fold increase from US\$5 billion recorded in 1995 (Naidu, 2007, p. 285). In 2000, bilateral trade with Africa was estimated to be \$10 billion; by 2014, the figure had risen to \$220 billion (Omoruyi, 2015, p.47). As several African nations began liberalising their telecommunications sectors and improving their infrastructure in the 1990s and first decade of the 2000s, Chinese companies started to invest heavily in the continent's telecoms industry.

China's digital footprint in Africa

In June 2010, when China released a White Paper asserting its right to control the internet within its borders, the term "internet sovereignty" appeared first in public discourse. According to the White Paper, the internet is governed by Chinese sovereignty within Chinese territory (Woodhams, 2019). Through its digital policies at home, China's investments and strategic posture in Africa have debunked the notion that technology is a powerful force for democratisation, freedom, transparency, and involvement (Mozur, 2018). Mass surveillance, cyber-operations, censorship, and information operations are at least four overlapping and mutually reinforcing avenues through which digital authoritarianism occurs (Brandt, 2022). For mass surveillance, Chinese authorities are combining modern and old technology into sweeping tools for authoritarian control, such as phone scanners, facial recognition cameras, and fingerprint databases (Mozur & Krolik, 2019). Authorities utilise phone trackers to obtain personal data and establish a connection between a person's online and offline activities (Qiang et al., 2022).

Additionally, they gather iris scans, voice prints and DNA samples to create thorough profiles of people that are made available to all branches of government (Qiang et al., 2022). China's digital investments in Africa are not accidental. It is a strategic outcome of the Belt and Road Initiative (BRI), or the Digital Silk Road (DSR), announced in 2013 during a state visit to Kazakhstan by Xi Jinping.

Although China's involvement in Africa's tech sector predates the BRI, its adoption of the 'go out policy' as an internationalisation strategy in 1999 saw Chinese tech firms like Huawei and the Chinese telecommunications giant Zhongxing Telecom Ltd (ZTE) moving into Africa in search of business opportunities and market access (Esterhuyse, 2013). Since several of these companies' operations in Africa are only now being classified as DSR, an emerging body of literature contends that this reclassification may be designed to secure political and financial support from Beijing for Chinese corporate expansion (Greene & Triolo, 2020). Additionally, Africa's huge infrastructural deficit made it a natural

recipient of the BRI strategic gambit to promote economic and cultural ties between China and countries along the old Silk Road trade routes connecting Asia, Europe, and Africa (Albana & Fiori, 2021). In a broader context, China sees the BRI as a strategy to advance its economic interests and expand its global influence and strategic reach. By investing in digital infrastructure projects and providing loans to participating countries, China hopes to increase its exports and access to natural resources (Beeson, 2018).

Thus, by virtue of the BRI's ongoing quest for investment and Africa's need for energy, transport, and telecommunications infrastructure, China has become one of the major lenders to African governments. However, the balance of trade is far from equal. While Chinese loans have allowed African countries to finance much-needed development projects, they have also created a dependency relationship. Most Chinese loans come with conditions that serve China's strategic interests, such as preferential treatment for Chinese companies and access to natural resources. This has given China greater leverage over African governments heavily dependent on capital investments and infrastructure.

In January 2021, 40 of 140 countries reported to have signed memorandums of understanding with China to join the BRI were African; all of them are participants in the DSR (Nodopil, 2021). Africa's mobile telecoms revolution has been made possible by infrastructural investments and cost-effective yet high-quality products and equipment (Agbebi, 2022). From internet backbone networks to last-mile solutions, Chinese companies like Huawei Technologies, ZTE, and China Telecom have taken market share away from significant non-Chinese companies like Ericsson, Alcatel, Nokia, and Siemens (Hsueh & Nelson, 2013). According to Cobus van Staden, a senior China-Africa expert at the South African Institute of International Affairs, Huawei has developed over 70% of the continent's 4G networks, surpassing European competitors (Mackinnon, 2019). Loans from Chinese state banks are frequently used to finance construction since they are authorised more quickly and with fewer restrictions than loans from international organisations.

A study by Hart & Link shows that Huawei's access to state money has undercut its rivals (Hart & Link, 2020). They argue that "iron triangle loans" to Huawei's clients (i.e., loans from the Chinese state-owned CDB and the EXIM banks) provide Huawei with a competitive edge in bidding because its rivals find it challenging to match state-subsidised financing that Huawei's clients receive. These loans are provided at relatively low interest rates and with terms frequently unmatched by commercial banks. Hart & Link estimate that 57 "iron triangle" loans to governments and state-owned companies in 24 African countries to finance Huawei-implemented telecoms infrastructure projects have amounted to \$4.7 billion (Hart & Link, 2020).

Nowadays, Chinese technology corporations dominate nearly all of Africa's telecommunications technologies, from underwater cables, satellites, and backbone infrastructure to applications, devices, and platforms for individual customers. By the end of 2020, sub-Saharan Africa had 495 million mobile phone users, which accounted for 46 % of the region's population. By the end of 2025, that number is expected to increase to 615 million subscribers, or 50 % of the region's population (Agbebi, 2022, page number). China Telecom intends to build a vast fibre optic network serving 48 African countries (Ignatius, 2017).

Transsion Holdings, a Shenzhen-based business, surpassed Samsung to become Africa's top supplier of smartphones (Dahir, 2018, page number). H3C, another Chinese firm, was chosen to build the new data network for an airport in Nigeria (H3C, 2020). In 2019, Hikvision installed 15,000 cameras across the Johannesburg metropolitan region thanks to the help of a local video surveillance provider.

Hikvision opened an office in Johannesburg in 2018 (Mudongo, 2021). Despite a decline in Chinese hard infrastructure loans to African countries, Chinese investments in digital infrastructure have risen (Moore, 2021, page number). One reason for this turn of events is that digital infrastructure only demands a little capital investment compared to hard infrastructure like roads, bridges, and railways. This dependency relationship has come at social and environmental costs to many African countries, with Chinese companies facing accusations of violating environmental and labour standards in their African operations (Shinn, 2016). As Howard French highlighted in his book, “China’s Second Continent”, African governments risk jeopardising their relationship with China if they enforce their regulations or act against Chinese companies (French, 2014).

The impact of China’s digital expansion on democracy in Africa

From the perspective of African countries, a more dramatic set of political economy and governance transformations than those of the last decade, when China led the charge for Africa’s critical digital infrastructure rollout, is difficult to imagine. For nine consecutive years, China has emerged in data that ranks it the worst abuser of internet freedom (Freedom House, 2023). On the face of it, at least, the likely outcome of this recursive dynamic is the rollback of democratic gains on the continent, even if Africans derive substantial benefits from connectivity to the internet. But how accurate is this assessment? An alternative understanding associated with the concept of digital authoritarianism, outlined in the theoretical framework of this paper, suggests a very different way of understanding the practice and meaning of Chinese digital infrastructure investments and their deployment by African governments in flawed democracies. To the extent possible, the present section and the ensuing one build on themes emerging from historical-contextual data in previous sections to empirically explore the practices and critical dimensions that have produced authoritarian trajectories in select African countries. The evidence highlights how the proliferating discourses on Chinese digital authoritarianism in Africa are shot through with tension and nuance that suggest a less linear dynamic than Chinese digital authoritarianism.

On the one side, data from secondary literature and narrations of China contain discourses of a willing collaboration, where China’s export of technologies to Africa through Huawei, ZTE, and other Chinese frontier technology companies might have encouraged African nations to embrace Chinese internet and technology governance standards (Agebi, 2021). These concerns are perfectly valid in light of the Chinese government’s use of internet censorship and control, as well as its advocacy of a closed, state-based model of internet sovereignty and technological governance in UN forums. On the other side is an Africa-centred emphasis on the appeal of Beijing’s interpretation of internet governance standards, like its economic model, to some African governments who wish to harness ICT for economic development while maintaining strict control over how the internet is used.

The constant refrain is that the internet, and particularly mobile phones, may be exploited and managed to harm democracy and civil freedoms, with Egypt under Hosni Mubarak, Ethiopia, Zambia, Uganda, and Nigeria cited as examples of authoritarian regimes that have restricted internet connectivity as well as the flow of information among their citizens and between citizens and the outside world (Rhoads & Fowler, 2011). For instance, the Nigerian government suggested social media regulation (among other measures that effectively tried to stifle protests and resistance to the government) in reaction to the use of social media to organise and support the #Endsars protests in October 2020 (Kazeem, 2020).

In a telling remark, Nigeria’s information minister, Lai Mohammed, advocated the adoption of a so-

cial media strategy focused on the use of technology to control social media platforms, citing China's censorship and regulation of the internet as a prime example of the country's policy trajectory (Sahara reporters, 2011). The recent Twitter ban by the Nigerian government and its alleged consultation with the Cyberspace Administration of China (CAC), in charge of China's cybersecurity and digital economy initiatives, over the installation of a Chinese-style firewall suggests that the government plans to adopt China's model of internet governance (Mbamalu, 2021). Edwin Nyangoni, Tanzania's Deputy Minister for Communication, shares the same ambition. During an event co-sponsored by the CAC, Nyangoni extolled China's internet firewall, saying, "Our Chinese friends have managed to block such media in their country and replaced them with homegrown sites that are safe, constructive and popular. We are not there yet, but while we still use these platforms, we should guard against their misuse" (Bailey, 2017). Nyangoni believes that while citizens are free to express themselves, the onus is on the government to use measures to hold them accountable for what they say, which is practically what happens in China under its internet sovereignty regime.

In Uganda, internet shutdowns and digital restrictions are fast becoming a routine part of the country's electoral cycle (Swails et al., 2021). For opposition figures like Bobi Wine, social media is a potent tool for political mobilisation. However, the potential for regime change has been hampered by the government of Yoweri Museveni's mix of social media bans and internet shutdowns to control and determine the outcome of elections. A crackdown by Ugandan security forces following several days of demonstrations against a 100% fuel price hike in January 2019 that resulted in 600 arrests highlighted how deeply interwoven digital surveillance and control is in the Ugandan government's institutional repertoire. The first nationwide internet shutdown can be traced to Zimbabwe, where the government imposed a regime identical to China (Mutsaka, 2021).

On the balance of evidence, all African autocracies that gained notoriety as one-party authoritarian regimes in recent decades have followed suit. Social media and internet blackouts have been recorded in Chad (2016), Togo (2017), and Cameroon (2018). In 2020, eight African governments shut down the internet, according to Giles & Mwai (2021). Wilson (2019) has noted that, in June 2019, Sudanese soldiers from a government paramilitary force "went on a killing spree in the capital Khartoum, the internet went dark, preventing protesters from documenting the violence on social media". Across Africa, the justification for internet shutdowns has hinged on national security and sovereignty concerns. The Chinese seem to have provided the model and playbook which repressive African governments increasingly want to follow. Chinese technology is the bedrock of Africa's digital infrastructure, making it all that much easier.

Chinese digital authoritarianism or African governance problem?

The patterns identified in the previous section not only highlight how deeply embedded China's digital authoritarianism has become as a passive structuring force for modernising African autocracies but also how the Chinese power repertoire feeds into justifications for digital sovereignty in Africa. This section enriches the data with more finely-grained empirical evidence from interviews with African state officials and policy experts across a sample of countries. The central concern in the interviews was whether China is a structuring force for African autocratic regimes or whether African governments have co-opted China's digital infrastructure to their authoritarian ambitions. For Eric Olander, Managing Editor of the China-Global South Project, China's digital infrastructure may be exploited by African governments to sabotage their democracies. Still, he adds that the problem is not unique to China's digital technologies. He points out that Africa's digital infrastructure mix includes those from the West, which African governments could also misapply to extract the same ends.

Olander's vivid statement was amplified by Francis Xavier Sosu, a lawyer and member of Ghana's parliament, who believes that when a government has the potential to dislodge a mass social movement through the shutdown of the internet and social media spaces, that government is in connivance with the (Chinese) developers of those digital infrastructures to undermine the freedom of expression through censorship. When asked about his thoughts on adopting China's internet sovereignty propagated as a model for developing countries, Sosu opined that the model does not meet the general ideals of how society must be governed and ordered. He also stated that internet sovereignty infringes on the fundamental right to information.

Mentioning the role of Chinese companies in African countries brought forth responses similar to Sosu's from other interviewees. Respondents stated that companies ready to provide such equipment and services to African governments, regardless of the Tech firms' country of origin or ownership, satisfy the needs of African authoritarian regimes for surveillance technology and other related infrastructures. An example is Ethiopia, where tools and services provided by companies in China, Germany, the United Kingdom, and Italy helped the Ethiopian government restrict criticism and monitor its political rivals. European and Chinese companies are said to have provided the Ethiopian government with technologies of surveillance and censorship, suggesting that China alone is not providing technologies and services that undermine democracy and restrict civil liberties in Africa (Human Rights Watch, 2014).

The most visible narrative to emerge as a cross-cutting theme from empirical data is that African autocracies adopt and deploy technologies to their authoritarian ambitions, notwithstanding their country of origin. These technologies have been employed to stifle political dissent and restrict freedom of expression and access to information. Thus, surveillance technologies are commonly deployed to counter the disruptive power of social media, which threatens the political power of leaders of undemocratic countries. Data from African political leaders and experts commonly tend to view social media as a threat because of its potential to provide the public with greater access to information, thus acting as a mobilising platform against autocratic leaders.

According to a recent Freedom House study, this trend appears to be increasing among autocracies globally: last year, authorities in at least 20 nations blocked internet access; in 21 countries, they blocked social media access (Funk & Shahbaz). Woodhams (2020) found that the free flow of information is being stifled, expression is being restricted, journalists are being prevented from sharing necessary development documentation with the public, and a growing number of governments are imposing pressure on internet service providers to "throttle", or slow down, their services during combustible political moments.

In practice, however, this portrayal provides very little room for understanding crucial questions of Chinese motives for digital investments in African autocracies. As Agbebi (2022) argues, it is unclear to what extent Chinese private companies are actively promoting the interests of the Chinese government as opposed to their corporate interests in maximising profit and competing in those markets, given that their behaviour in host African countries is not significantly different from that of their Western counterparts. On the face of it, China and Russia make significant financial investments in official media outlets that disseminate their globally favoured narratives through multilingual online operations. Both attempt to pass off their information efforts as genuine advocacy by using local influencers, which presents difficulties for defenders in the private and public sectors operating in the target societies (Brandt, 2021). Recognising that misinformation can be just as damaging as outright

disinformation but much more challenging to fact-check or otherwise moderate, Russia, China, and Iran use it to sway public perceptions of politicised events in their favour. Misinformation is factually accurate information stripped of context for the purpose of deception (Schafer & Brandt, 2021).

Unlike Russia, however, China's strategy appears to be geopolitical, aimed at larger strategic deployments of digital technologies in targeted countries and regions. These divergent conceptions of meaning and practice between Chinese and African motives for digital deployments in African countries may mean that they converge on collaborative arrangements that meet the needs of both sides of the equation. However, while it seems powerfully evident from the data that the country of origin of digital technologies in African countries may be of little concern to African leaders, citizen perceptions of their impact suggest contradictory impulses starting to broadly define future battlegrounds between Africa and China in the digital realm.

The latest Afrobarometer report (2023) reveals that Africans have favourable opinions of China's support and influence on the continent. However, when it comes to democracy, the majority of Africans are less enthusiastic. They largely reject China's authoritarian tendencies (Afrobarometer, 2023). For example, while 68% say they prefer democracy to any other system of government, large majorities reject military rule (74%), one-party rule (77%), and especially one-person or "strongman" rule (82%) (Afrobarometer, 2023, p. 3). Given that younger Africans aged 18-30 show a more substantial commitment to democracy on some indicators, especially those related to the importance of multi-party competition, China is at significant reputational risk should it pursue a policy that undermines democracy in Africa (Afrobarometer, 2023, p. 2).

The survey seemed to confirm evidence in this paper that tends towards situated practices in African autocracies where the implications of Chinese digital investments for democracy matter more than the source of technologies. This reformulation of mainstream discourses on the subject, in turn, invites the conclusion that situated impacts can only be determined by whether or not the deployment of technologies will enable autocratic regimes to exercise control over the digital and social media space to prolong their stay in power. China may have provided the ideological leadership for internet sovereignty and encouraged African governments to follow suit through its actions at home. Still, the ultimate decision and responsibility for switching off the internet during elections or frustrating social movements lies with African governments.

Conclusion and the way forward

The findings of this paper validate our central concern that democratic rollbacks in Africa can be only partially understood from the digital footprints of China's technological investments on the African continent. The findings suggest that while China may not necessarily be actively structuring its model of digital authoritarianism in African autocracies, African governments are actively using those technologies to bolster and sustain their power. Both secondary sources and interviews reveal that China's current provision of ICT infrastructure in Africa is no different from Western investments that have helped prop up authoritarian regimes in Africa. Thus, it is unlikely that African autocracies are products of China's internationalisation strategy in Africa. At the same time, nuance is required in understanding the data.

The evidence also implies that internet sovereignty may be grounded within discourses of soft power in the emerging battle between China and the US for hegemony in Africa. China may not be actively structuring digital authoritarian regimes in Africa. However, it can be reasonably argued that Chinese

investments in digital infrastructure and exporting its digital models have indirectly contributed to Africa's democratic rollback. Does countering the negative impact of China's involvement in Africa's digital space place the burden of responsibility on the US? One could argue that Beijing's decision to take the lead in building digital infrastructure on the continent was made possible by the failure of other prominent investors and donors to support the development of crucial ICT infrastructure in Africa.

African governments find the work of Chinese technology companies appealing, and the availability of financing from China's EXIM bank in funding critical infrastructure projects and supplying high-quality digital products and services at competitive prices relative to competitors in advanced economies. If that is the case, the challenge for African countries is no mean feat. What, then, are possible ways forward? For starters, the US should not isolate African countries merely because of geopolitical rivalry with China. A fixation on rivalry will push Africa further into China's sphere of influence.

At the same time, China's resolve should not be underestimated. As this article has demonstrated, China exports a wide range of technological goods and services to Africa, including but not limited to telecom network infrastructures, surveillance, smart city infrastructures, data centres, digital collaborations with higher education institutions, R&D and innovation labs, and capacity development. In that sense, Chinese exports of digital technology can help African economies in several ways, including facilitating greater connectedness, more significant inclusion in the global digital economy, and the control of crime. However, the overriding concern should be the implications for Africa of dependence on China for the continent's long-term trajectory.

Looking West requires a more robust strategic posture by the US towards Africa. As we have argued, until recently, the US did not have a digital strategy for Africa, meaning the country has primarily been reacting to China's DSR strategy. Late last year, the Joe Biden Administration launched the Digital Transformation with Africa Initiative (DTA) during the US-Africa Leaders Summit. Under the DTA, the US intends to spend between \$350 million and \$450 million on Africa, in line with the African Union's Digital Transformation Strategy and the US Strategy Toward Sub-Saharan Africa (The White House, 2022). The DTA aims to promote an open, interoperable, dependable, and secure African digital ecosystem led by African communities. This project will also look to empower women and other disadvantaged and marginal communities through the digital ecosystem.

However, one of the DTA's limitations is the inadequacy of its planned financial disbursements. Earmarking \$450 million for a digital programme in Africa is not nearly enough to counterbalance Chinese influence and reorientate the continent away from China towards Western standards. To counter Chinese influence effectively, the US would have to provide an adequate alternative in terms of both funding and infrastructure rollouts in Africa. With the availability of a viable digital initiative from the US, authoritarian governments may still want to align themselves with China, not least for the enormous control it gives them over opposition parties and civil society groups. This likelihood only makes a strong political opposition and civil society a central pivot around which the US strategy must orbit.

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