

AFRICA INFACT



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CHINA vs US

the battle for digital supremacy in Africa



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DIGITAL SILK ROAD

TECH WAR
THE CLASH OF
TWO INTERNETS

MIND THE GAP
HUAWEI'S CHARM
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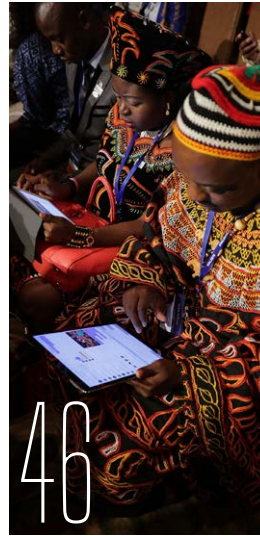
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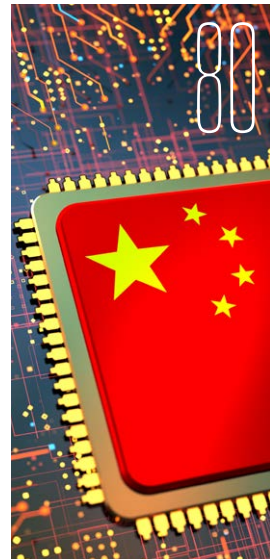
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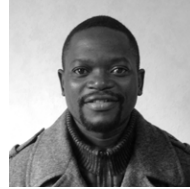
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FOREWORD

In an article headlined ‘While America slept, China became indispensable’, published by *Foreign Policy* in May this year, journalist Howard W French, an old China hand and former *New York Times* China bureau chief, observed that “China has spent several decades engaging in impressive great-power behaviour while provoking hardly any innovative policies by its principal rival, the United States”.

It is in this context that this issue of *Africa in Fact*, *China vs US – the battle for digital supremacy in Africa*, examines how the trade war that ignited between the two global powers during Donald Trump’s presidency has evolved into growing competition for digital supremacy on the continent.

This is the third *Africa in Fact* collaboration with the African Centre for the Study of the United States (UCSUS), which is based at the University of the Witwatersrand under the leadership of deputy director Dr Bob Wekesa. This third collaboration provides us with another welcome opportunity to publish the work of African scholars and writers beyond our own network of regular and occasional contributors.

To paraphrase Dr Wekesa, the objective of this collaboration is to contribute information and knowledge on how Africans view the US and China’s competing approaches in the digital technology sector, providing suggestions for how the continent can benefit from both relationships on its own terms.

Each of the writers featured here brings an African perspective to the struggle between China and the US, both countries with their own ideological spin on what is described as “digital diplomacy” to win the hearts and minds of governments and consumers across the continent.

A read through this collection of articles reveals

a palpable difference between the US and Chinese approaches to digital diplomacy. In the case of the US, what is noticeable is the apparent lack of any strategy, relying instead on private companies such as Apple, Microsoft, and Google to lead the way, both in terms of investment and development projects. By contrast, China and associated Chinese companies have pursued an energetic strategy to help Africa bridge the digital divide, offering countries unconditional ICT infrastructural and capacity investment – including the construction of much-needed African data centres, smart cities, and internet connectivity.

While Africa has welcomed both US and Chinese support in realising its ICT ambitions, African scholars have asked pertinent questions about the risk to the continent implicit in the techno-nationalistic nature of the trade war. There are important questions to be asked about China’s authoritarian approach to internet sovereignty, its bad record when it comes to internet censorship, and technology transfers of digital surveillance systems to authoritarian governments such as Zimbabwe, for example. On the other hand, the US ban on Huawei’s 5G network and Tik Tok, and restrictions on selling ICT components to Chinese companies, threaten to force African countries to make uncomfortable choices about which side they are on.

Reading this issue of AIF in its entirety, however, leaves the clear impression that Africa must push back against attempts by either the US or China to force countries to choose one or the other, and find instead a middle ground that is in its own best interests.

Susan Russell
Editor

Uncle Sam vs the Dragon

This issue of *Africa in Fact* is part of a broader initiative aimed at shedding light on the competition between the US and China in the African digital sphere. The project focuses on the competition between the US and China in Africa's digital sphere while providing African responses to such competition. Within the broad framework of Africa-US-China digital engagements, contributors to this issue discuss some of the pertinent issues from an African perspective.

This initiative responds to China's rise in the global sphere, its implications for the US, which has remained the sole superpower for nearly three decades and, significantly, what this means for Africa. In particular, the initiative focuses on the unfolding competition between China and the US for a share in Africa's information and communication technology (ICT) sector, a development that has come into sharp focus in recent months. However, while the competition in Africa is evident in African media and in the statements issued by US and Chinese leaders and officials, there hasn't been a concomitant body of knowledge that would shed light on this phenomenon from an African standpoint. The articles in this issue begin to redress these gaps by undertaking an analysis of old and new issues in the digital sphere across the five regions of the continent – southern, eastern, central, western, and northern.

The competition has resulted in a lack of clear global leadership and governance of emerging digital technologies, as China and the US battle over critical issues of ICT deployment and use. This has, in turn, resulted in digital technology being one of the major domains of geopolitical friction between the powers, with extensive consequences for Africa.

Analysts have pointed out that US-China digital competition has taken the form of a global “tech war”, with differing opinions and perspectives from either side. The more tangible and visible aspects of the tech war are seen in trade disputes underlined

by mutual imposition of sanctions, penalties, fines, and the blockage of the operations of tech companies on either side. Authors such as Wits University's Iginio Gagliardone and the University of Denver's Suisheng Zhao see the competition as a struggle between democracy and autocracy with the US as the normative leader on one side and China the leader on the other. This has introduced the narrative of what authors refer to as “Geotech” – the link between geopolitics and technology – in which there is an ostensible strive for a balance of power globally. Some have gone as far as concluding that the digital competition has morphed into a putative Cold War.

Against the background of global digital competition between the two powers, perspectives on their implications for Africa have emerged. In other words, the tech war between the US and China has spilled over onto the African continent. Commentators agree that the tech war in Africa is a continuation of the competition that has intensified since 2009 when China overtook the US to become the continent's leading trading partner. On the one hand is the view that China is helping African countries establish internet or information societies by financing projects and offering affordable ICTs, while the US specifically and the West generally are often seen as less supportive in these respects. This constitutes a positive or techno-optimistic narrative for China, emphasising economic benefits for Africa and propounding an African dimension of China's Digital Silk Road. On the other hand is the view that China is exporting its “authoritarian version” of ICTs, particularly the internet, and that the US specifically and the West broadly should work with African counterparts to stem emerging illiberal governance practices.

The upshot is that the question of the impact of Chinese and US ICT investments and engagements in Africa is a contested and far from settled matter. Since Africa is literally in the middle of the US and

China tech war, the region faces dicey technological choices between the offerings of the two powers. Africa is considered a large and emerging ICT market for US and Chinese products and services because of the continent's low level of ICT penetration. Both the US and China see the digital divide in Africa as an opportunity to structure deals that not only benefit their companies, but also constitute a new area of influence.

As China and the US battle for a share of Africa's ICT sector, it is important for Africans to muster agency and define and shape the nature of the engagements. Intellectuals interested in what is being referred to as "techno-politics" ought to step up to the plate to generate the knowledge and perspectives that will inform policy and contribute ideas to be used by African ICT businesses. In this issue, such an agenda begins to take shape, with African intellectuals drawing on debates and empirical data to offer perspectives on how Africa should respond to the practices of the two internet powers. This issue not only provides knowledge and information on the patterns and trends that China and the US are deploying toward Africa, but also offers thoughts on the conceptual, theoretical, and methodological approaches for understanding what is at play.

The significance of this issue is manifold. First, while the tech war can be analysed and studied from an entirely US-China competition prism, this would fall short of African interests. Thus, one of the areas of focus by contributors to this issue is a consideration of the impact of the tech war in the African ICT sector. Appreciating the diversity of a 55-nation continent, the issue includes perspectives on a cross-continental scale, ensuring similarities and differences in the western, central, southern, eastern, and northern regions are captured. A pertinent question is, "What are the impacts of the competition of the US and Chinese state and non-state actors in selected countries in these regions?"

Second, it is evident that Africa is being courted by the US and China to take sides in their evolving and dynamic tech-based rivalry. This raises two

questions about the strategies that the US and China are directing toward the continent. Which specific technologies and companies have been affected by the counter-imposition of sanctions by the US and China and what does this mean for Africa? Relatedly, do the American and Chinese digital technologies being deployed show more benefits and fewer risks, or *vice versa*?

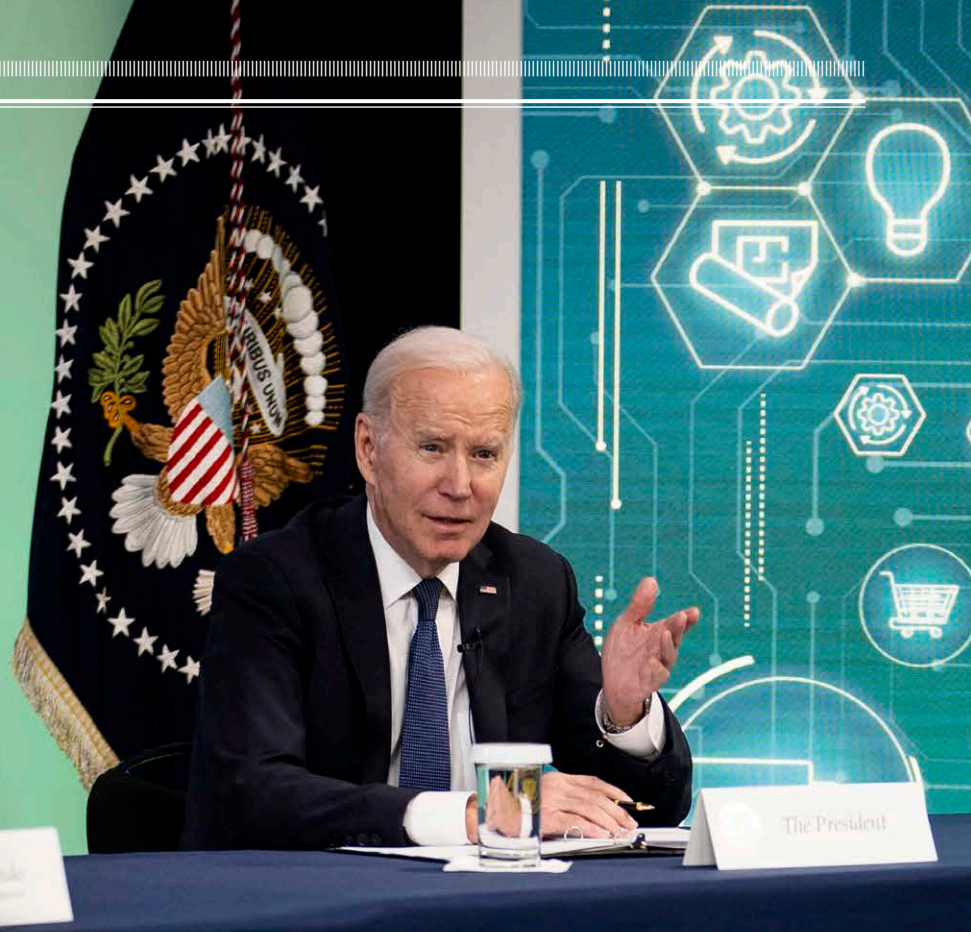
Third, and perhaps more importantly, how are African countries responding to the strategies directed towards them by the tech actors from both powers? In other words, from the viewpoint of Africans, which US and Chinese strategies are succeeding, and which are failing? In which ICT sub-sectors is Africa being drawn towards the US or China, and why? What relevant role can Africa play in the global governance of ICTs given the tech battle between the US and China?

In this issue, readers will be drawn to comparisons between US and Chinese ICT strategies and practices in Africa, including the geopolitical superstructure that informs developments. ICT governance issues – including policies, regulations, and legal frameworks – are discussed in the context of calls for internet sovereignty *vis-a-vis* internet universality. Under the rubric of digital diplomacy, issues around foreign policy motivations by the US and China are discussed, with the aim of appreciating how Africa is being wooed and persuaded in two differing directions.

Some of the contributors specially discuss the sub-sectors in which the US and Chinese visions are on a coalition path. These include those relating to 5G technologies, surveillance, e-commerce, financial technology (e.g., digital currencies), telecommunication infrastructure, digital gadgets, artificial intelligence (AI), space technology, and social media applications.

We hope readers will enjoy reading this issue, and join the debate on how Africa should be more active in shaping global information societies rather than taking a passive stance.

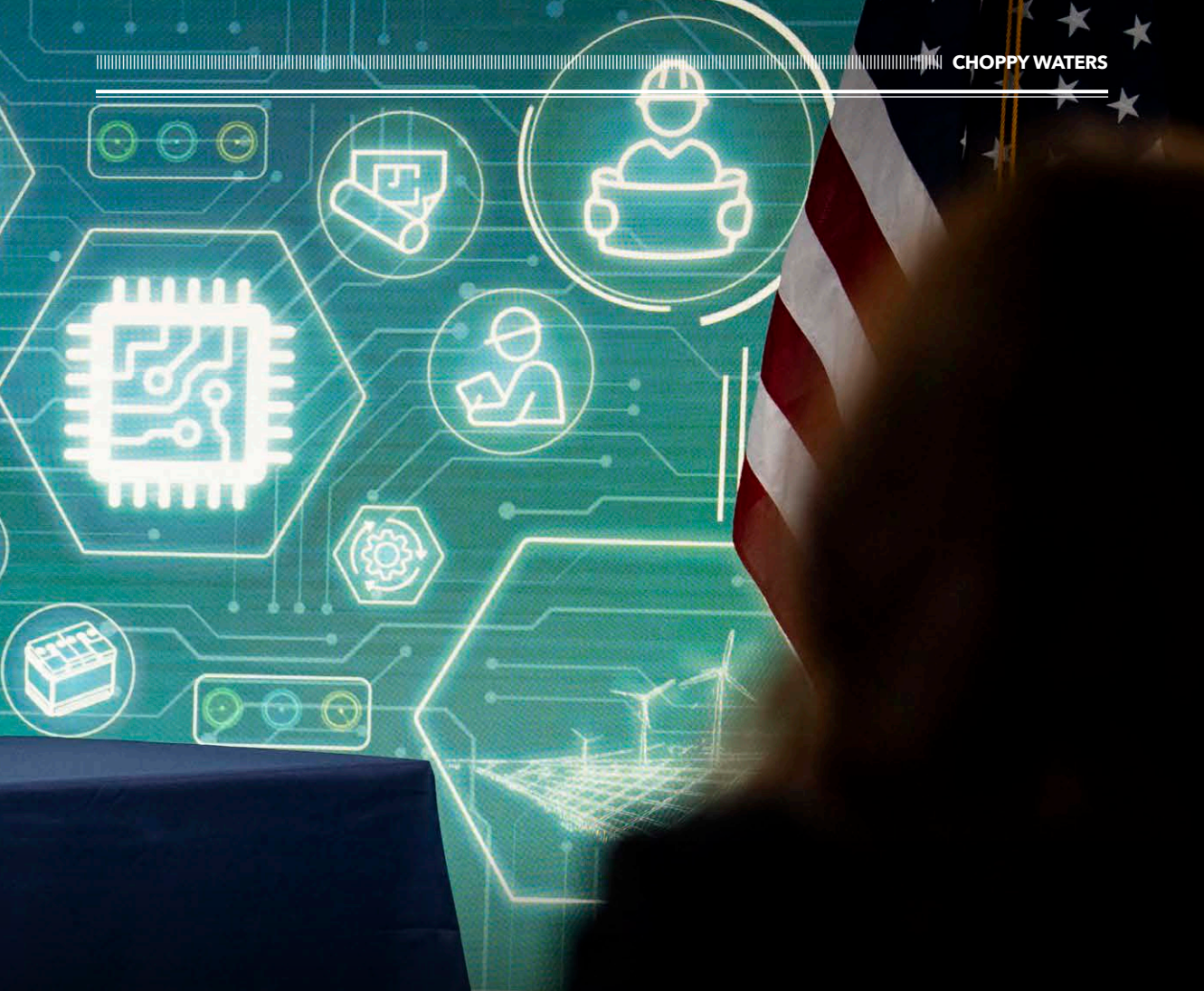
Dr Bob Wekesa – Guest editor



The US and China's 'chipageddon'

hits Africa's digital
transformation mission

By Odilile Ayodele



When the Trump-led US administration triggered a trade war with China in 2018, few would have imagined the global repercussions of this geopolitical conflict, particularly for African countries. The seismic shock of the US-China technological conflict was most apparent during 2021’s “chipageddon”, worsened by the US ban on the sale of semiconductor chips to China, which led to a global shortage that affected everything from car manufacturing to computing.

Growing techno-nationalism by the US and China puts Africa’s quest to close the digital divide at risk. The African Union’s Digital Transformation Strategy recognises that digital infrastructure is the bedrock of the digital economy and is necessary to successfully implement initiatives such as the African Continental Free Trade Area.

Although access to the internet is improving, there is a divide between rural and urban areas. A 2021 report by the AUC and OECD shows that internet usage statistics are considerably higher in urban areas, which ultimately leaves out a considerable amount of the population who primarily live in rural settings. For Africa to bridge the digital divide it desperately needs to increase its digital infrastructure, improve digital skills on the continent and create an enabling policy environment.

ABOVE: President Joe Biden and Gina Raimondo, Secretary of Commerce, meet with business leaders and bipartisan governors at the White House in March this year.

Photo: Doug Mills-Pool/Getty Images

However, the dream of digitally transforming the continent will remain elusive due to the competition between the US and China. For African countries, building a responsive regulatory and policy environment and increasing digital infrastructure means diving into the choppy waters of geopolitics; specifically, the techno-nationalist tendencies of the US and China. The complex nature of hardware supply chains and the mutable nature of data means that geopolitical considerations put African states in a precarious position.

The current digital ecosystem is driven primarily by the US and China. Both countries are responsible for providing physical infrastructure and the standard-setting in internet and data governance. This means that African countries cannot build their digital economy without engaging either country.

In recent years the China-Africa relationship has become a topic of discussion, with many commentators zeroing in on China's infrastructure loan agreements. However, the Chinese government has stepped in to provide much-needed extra-regional investment in Africa's digital infrastructure, which incidentally falls within China's Belt and Road Initiative (BRI), including the Digital Silk Road. China's involvement in Africa directly competes with US global interests and highlights their divergent economic approaches.

The Chinese are the primary funders of Africa's digital infrastructure backbone. According to a 2020 article by Bianca Wright, more than 50% of Africa's 3G systems are built by Huawei and the ZTE (ZhongXing Telecommunication Equipment) Corporation. In 2019, Amy MacKinnon reported that Huawei built approximately 70% of the 4G networks on the continent.

The need for, and profitability of, pan-African data centres grows more acute as 4G and 5G technology becomes nearly ubiquitous. Africa's data centre capacity is minuscule, with most of Africa's data going through Europe's centres. Huawei has



ABOVE: Chinese President Xi Jinping delivers his speech via videolink during the China-Africa Cooperation (FOCAC) meeting in Dakar, Senegal, on November 29, 2021.



Photo: SEYLOU / AFP

responded to this need by including data centres as part of its offering. In 2021 Senegal became one of the first African countries to take up this offer and build its own data centre.

In a white paper, *China and Africa in the New Era: A partnership of equals*, released two days before the 2021 Forum on China-Africa Cooperation (FOCAC), the Chinese state council underscored its efforts to help Africa close the digital divide, including the building of digital infrastructure such as submarine cable projects, which connect Africa to Europe, Asia,

and the US, optical fibre, and the establishment of a public cloud service that covers the continent. In a 2019 article written for *African Business*, Jonathan Hillman succinctly explained that the BRI is “...also a vehicle for China to write new rules and establish institutions that reflect Chinese interests and reshape ‘soft’ infrastructure”.

Narratives around modernity and development are tightly linked to the harnessing of contemporary technologies. For African states that are still climbing the development curve, access to technologies and



Photo: Plus Ekpe/AFP

technology transfers are crucial to their active participation in the modern economy. For more prosperous countries, technology dominance signifies its power and identity.

The US and China's dominance in the digital ecosystem shape the global regulatory environment because much of the world's intellectual property is owned or controlled by these countries. As a result, current rules on data protection have become a hotbed for contestation between those who prefer the free flow of all information and those who believe that information should be regulated to prevent its abuse by non-state actors. In reality, data protection laws do not necessarily protect individual identities, as premised in the various approaches to data protection, but instead, create prisons around the transfer of practical knowledge.

Looking at the current rules framework of international relations, the US and China have become more insular under the guise of security concerns

ABOVE: Nigerian activists call for nationwide protests over the ban of US social media platform Twitter by the government of President Muhammadu Buhari on 12 June 2021.

when, in reality, the drivers are arguably more ideological. The US, for instance, does not have formal regulatory oversight when it comes to data collection because of its liberal capitalist approach. In line with Shoshana Zuboff's description of surveillance capitalism, the result is that corporate actors have substantial powers over citizen data. On the other hand, China's citizen data is primarily controlled by the central government, and it follows a state-centric approach in host countries. The Chinese approach has led to accusations by western countries of espionage and other forms of surveillance. The Chinese have refuted numerous claims put forward by western media that they use Huawei technology, particularly cameras, to spy on the African Union headquarters.

African countries are compelled to choose between allowing their citizens' data to be controlled by corporate actors, with little room for recourse, or selecting the Chinese model that underscores the need for citizen data to be under the host governments' authority. For citizens living in repressive African states, the latter option is physically dangerous.

These different regimes are a barrier to trade in data and cloud services, restricting information flow, limiting growth and scientific collaboration, and jeopardising critical digital infrastructure development. For instance, a US-backed consortium won the bids to build the 5G networks in Angola and

Ethiopia but had to back out of the latter contract because the country refused to block Huawei components from being used in the network. Kenya's Safaricom, powered by Huawei, ultimately built the network.

In an article for *Foreign Policy* in May this year, 'While America Slept, China Became Indispensable', Howard W French correctly observed that: "To a degree that few in the West yet understand, this will be the most important domain of great-power competition in the decades ahead: meeting people

where they live and addressing the practical problems that dominate their lives – things like helping connect people through infrastructure and improved public services, broadening prosperity, and protecting the environment. Old rhetorical standbys like democracy and human rights are important, but it is hard to imagine them flourishing without foundations like these."

African countries cannot afford to be embroiled

in the techno-nationalist impulses of much wealthier countries. What they need is increased infrastructure and knowledge transfers. Ironically, more developed countries did not have to deal with similar restrictions when building their own digital infrastructure. As the Biden administration continues – and intensifies – its technological cold war with China, African countries will have to take stock of what is at stake in the long term and continue to look for a middle ground. [GGV](#)

In reality, data protection laws do not necessarily protect individual identities, as premised in the various approaches to data protection, but instead, create prisons around the transfer of practical knowledge.

Democracy in Africa: **enter the dragon**

By Amodani Gariba



Africa had only seven democracies in 1991. By 2012 the number had more than doubled to 16. According to the Economic Intelligence Unit's Democracy Index, by 2019, there were 25 democracies in Africa, even though it classified them into categories - full, flawed, and hybrid. Despite these inroads, the challenges to democratisation in Africa are enormous, some of which have evolved with time.

In this century, perhaps the biggest challenge for African democracies is digital technology. Something which hitherto was thought of as a force for good now has the potential to undermine the foundation of democracy.

Eric Olander, the managing editor of the *China-Global South Project*, in an interview with *Africa In Fact*, argues that many African governments believe the open internet, supported by the US, is imbued with a potential threat to national security. This threat, he says, is the possibility of proliferation of hate speech and fake information, which in Myanmar, for instance, has caused the death of thousands of Rohingya muslims. This makes China's idea of internet sovereignty seem a viable alternative.

However, for China – that has in four consecutive years been ranked by Freedom House as “the worst abuser of internet freedom” – to be actively engaged in building Africa's critical soft and hard digital infrastructure, is understandably cause for alarm for democracy-building institutions.

According to researcher Cobus Van Staden, Chinese tech company Huawei has built about 70% of Africa's 4G infrastructure.

Even after French newspaper *Le Monde* in January 2018 reported that China had bugged the African Union headquarters, which China built for free, the company is still assisting the

AU to devise a digital transformation strategy for its Agenda 2063. In addition, Huawei and several other Chinese companies are involved in the construction of smart cities in several African countries such as Ghana, Nigeria, Kenya, Ethiopia, Zambia and Zimbabwe.

Many fear that as the Chinese-built internet spreads across Africa, authoritarian leaders may try to limit the web's power to propagate popular discontent by adopting a Chinese-style controlled web. Following the #EndSars protest in Nigeria in 2021, which started on Twitter, Nigeria's government sought to use internet shutdowns to repress the movement, which called for the scrapping of the Nigerian police Special Anti-Robbery Squad for gross human rights abuse.

Nigeria's Twitter ban, it would appear, was part of a larger plot by the government to control cyberspace. Local Nigerian newspaper *Foundation for Investigative Journalism* reported that officials from the Nigerian presidency met the Chinese Cyberspace Administration (CAC) to control cyberspace. This is an allegation that Nigerian Foreign Minister Geoffrey Onyeame has denied. Though it is risky to conclude, we also know that Lai Mohammed, Nigeria's Information and Culture Minister, has attempted to get the House of Representatives to amend the Nigerian Broadcasting Commission Act to bring online digital platforms under the control of the government.

Sharing the same aspiration is Edwin Nyangoni, Tanzania's Deputy Minister for Communication, who, speaking at an event co-sponsored by the CAC, extolled China's internet firewall. He said: “Our Chinese friends have managed to block such media in their country and (have) replaced them with their homegrown sites that are safe, constructive and popular. We aren't there yet, but while we are still using these platforms we should guard against their misuse.”

In Uganda, internet shutdowns and digital restrictions are fast becoming a routine part of the

ABOVE: Huawei and several other Chinese companies are involved in building smart cities in several African countries such as Ghana, Nigeria, Kenya, Ethiopia, Zambia and Zimbabwe.

country’s electoral cycle. For opposition figures like Bobi Wine, social media is a potent tool for political mobilisation. The potential for regime change, however, has been hampered by the Yoweri Museveni-led government, which has used a mix of social media bans and internet shutdowns to control and/or determine the outcome of elections.

When, in 2019, Zimbabwean youths took to the street to protest against the rising cost of living, the government met them with brute force and imposed an internet shutdown to suppress the protest. In Ethiopia, internet shutdowns have become the weapon of choice for Prime Minister Abiy Ahmed against dissident regions.

Across Africa, the justification for internet shutdowns has always bordered on national security and sovereignty, and the Chinese seem to have provided the model and playbook that repressive African governments increasingly want to follow. The fact that Chinese technology makes up the bedrock of Africa’s digital infrastructure makes it easier. A

2019 *Wall Street*

Journal investigation provided evidence for this. In the report it emerged that Huawei technicians had used the company’s technology to help Ugandan and Zambian

leaders intercept encrypted data and use cell data to track political opponents.

On the question of internet sovereignty, Joshua Meserve, a senior analyst with the Heritage Foundation, opined that “they (Chinese) frame it as a sovereignty issue, but what they are talking about is the ability of a state to control the free flow of information online”.

Francis Xavier Sosu, a lawyer and member of Ghana’s parliament, believes that when a government has the potential to dislodge a mass

movement through the shutdown of the internet and social media spaces, then that government is in connivance with the developers (Chinese) of those digital infrastructures to undermine freedom of expression, popular views, and create censorship.

When asked about his thoughts on the adoption of the internet sovereignty propagated as a model for the developing world, Sosu opined that the model does not meet the general ideals of how society must work. He also said states that infringe internet sovereignty also infringe on fundamental rights to information.

Eric Olander agrees that African governments may exploit Chinese digital infrastructure to sabotage their democracies but, he adds, the problem is not unique to China’s digital technologies. He points out that Africa’s digital infrastructure mix includes those from the West, digital technologies that could just as well be misapplied by African governments to extract the same ends. To Olander, the use of digital

infrastructure to undermine democratic values is more of an African governance problem than a problem of Chinese meddling.

Emeka Umejei (see his article also published in this

issue), a journalism lecturer at the University of Ghana, seems to concur with Olander on the governance problem. In an interview with *Foreign Policy*, Umejei said: “African policymakers and politicians do not care. It is evident that several African leaders, as long as digital technologies could be used to prolong their stranglehold on power, don’t care what the consequences might be for democracy.”

The question now is, had the bulk of Africa’s digital infrastructure come from the West, would

For opposition figures like Bobi Wine, social media is a potent tool for political mobilisation.



ABOVE: Celebrating the first anniversary of EndSars, a protest movement against police brutality in Nigeria, October 2021.

the situation have been any different? Under the current crop of African leaders, the answer would hardly be a “Yes”.

In a hypothetical situation, if western providers of digital technology insisted that African governments adhere to established internet protocols as a prerequisite for the development of digital infrastructures, the result would be lower levels of digital inclusion for Africans, compared to what pertains today. Some African leaders prioritise political power over everything.

Though there is some evidence that links Huawei to repression in Uganda and Zambia, Olander argues that Huawei is not a state-owned enterprise and does not take directives from the Chinese government, so attempting to blame China directly for cyber-repression in Africa is misplaced.

Aside from providing global ideological leadership for the model of internet sovereignty, there is insufficient evidence to officially link China to cyber-repression in Africa. However, this does not mask the existential problem of African governments using digital technologies for the wrong reasons.

For democracies in Africa to survive the spectre of digital technology misuse, for which China seems to be in the lead, there must be a global concerted effort aimed at mitigation. Most importantly, a global power like the US must step in to take a leadership role in this regard. Howard French of Columbia University’s Graduate School of Journalism, thinks the US should make a “compelling, values-based case for moving away from Huawei” by providing a viable alternative.

The US, however, should not approach this problem in the belligerent manner that has characterised its response to China. It might end up being counterproductive as it would drive African countries deeper into the web of Chinese influence. Andrew Davenport, the chief operating officer of RWR Advisory Group, a firm that tracks Chinese investments, put it succinctly when he said in an interview with *Foreign Policy*: “The US is going to have to be strategic about how they approach this challenge. You can’t just blunder in and say, ‘It’s us or them’. China does provide things that the continent needs.” [GGV](#)



ICT INVESTMENTS:

Africa waits to see the money

By Adio-Adet T Dinika

ICT has permeated every facet of life, revolutionising how we work, how we learn, how we communicate, and how we organise societies. Several scholars and African governments have spoken about how ICT can play a pivotal role in greater productivity, higher GDP, capacity development and innovation, employment creation, better government transparency and democratic processes.

In their 2013 report ‘Lions go digital’, commenting on sub-Saharan Africa, McKinsey Global Institute (MGI) highlighted that: “If governments and the private sector continue to build the right foundations, the internet could transform sectors as diverse as agriculture, retail, and healthcare – and contribute as much as \$300 billion a year to Africa’s GDP by 2025.”

The US and China, embroiled in a bitter tussle for internet control, have emerged as critical players on the African ICT scene, making significant investments in infrastructure and services. The tech war between the two came to a head when the US banned Huawei’s 5G network in the US and restricted American companies from selling ICT materials to Chinese tech companies, a move followed by several US allies such as Britain and Japan.

Several Chinese applications, such as TikTok, were also banned by former US President Donald Trump, who accused

them of compromising national security. The Chinese responded by threatening to ban or boycott Apple products. So far, Africa seems not to have taken sides in the ongoing tech war. Addressing the South African Digital Economy summit in July 2019, South African President Cyril Ramaphosa acknowledged the importance of Huawei in 5G technologies but also emphasised a need not to get embroiled in the war, stating that: “We cannot afford to have our economy be held back because of this fight.”

Similarly, Dr Gilford Hapanyengwi, a Zimbabwean ICT expert, argued that “it doesn’t matter whether the cat is black or white, as long as it catches mice! Africa is benefiting from investments from both countries, so there is no need to take sides.”

China has made significant forays into the African ICT landscape in the past 20 years, led mainly by Huawei and ZTE. Interestingly, Huawei is responsible for an estimated 50% of 3G networks and 70% of 4G networks in Africa. According to the China Global Investments Tracker, between



2005 and 2009, Chinese ICT investments and contracts in Africa reached a whopping \$7.19 billion.

It is essential to view China’s recent investments in Africa’s ICT in the context of its Digital Silk Road (DSR) programme, launched in 2015 with the primary objective of investing in international digital infrastructure. The DSR

initiative has incorporated the activities of private Chinese companies such as Huawei by offering them favourable loans and awarding them contracts on Chinese-funded projects in Africa.

To counter the Digital Silk Road, the US International Development Finance Corporation is set to undertake ICT infrastructure funding as part of the G7’s Build Back Better World Programme. However, the US investments haven’t been as directly linked to African governments as the Chinese ones. US companies, notably Google, Amazon, Facebook, Apple, and Microsoft, referred to as “GAFAM”, have also made significant ICT investments in Africa, particularly in internet connectivity, though perhaps not at the same level as Chinese firms.

Facebook’s Free Basics Initiative, an application and website that provides free access to basic services such as news and weather, as well as access to Facebook, is present in 28 African countries. In addition, Facebook is also leading a private consortium with seven telecom operators, to finance a 37,000 km fibre-optic cable named 2Africa, estimated to cost between \$500 million and a billion dollars.

Google has invested in Project Link, constructing a private cable connecting Portugal and South Africa, and Project Loon, which has the ambitious



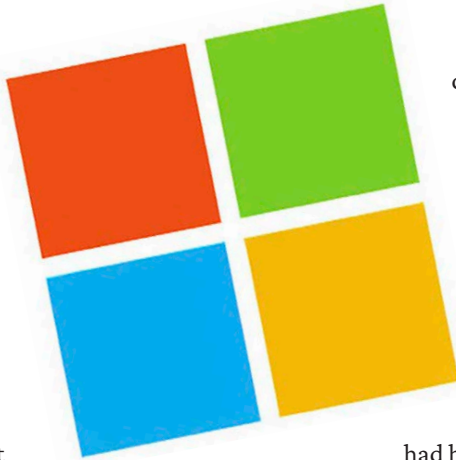
plan to use high-altitude balloons to provide internet connectivity. Through its Airband Initiative, Microsoft has also launched the TV White Spaces project, which is already providing affordable internet to an estimated 440,000 people in eastern Ghana.

Microsoft has also partnered with Slum2School, a not-for-profit initiative to provide access to high-quality education to Nigerian children living in slums and other disadvantaged areas. In addition to its 7,000 customer service staff in South Africa, Amazon has announced that it will open its African HQ in the country. Amazon founder Jeff Bezos has invested in African start-ups, notably in the Fintech start-up Chipper Cash.

Freedom of expression is a cornerstone of social development in its broadest meaning. Chinese and US ICT investments have a double implication for this fundamental tenet of democracy. On the one hand, the internet will increase transparency and allow

expression, especially to previously marginalised people. Twitter is a case in point; for example, in Zimbabwe, activists and journalists like Hopewell Chin'ono have used Twitter spaces to hold critical conversations, ensuring citizen participation in governance issues. Twitter was also essential in mobilising young people for the #EndSARS campaign in Nigeria.

On the other hand, several African governments have been found wanting in promoting these freedoms, and China's history of censorship



carries with it the apparent implication of exporting internet censorship to African governments. The fact that the Foundation for Investigative Journalism in Nigeria reported that high-ranking Nigerian government officials

had held discussions with personnel from the Cyberspace Administration of China to discuss how Nigeria could implement the "great firewall" in Nigeria puts this in clear focus. There was also the subsequent banning of Twitter in Nigeria, ostensibly as retaliation for Twitter's removal of a tweet by President Muhammadu Buhari. A report released by Access Now for the #KeepItOn coalition found there were at least 19 Internet shutdowns in 14 African countries in 2021 alone, and China's increased investments in the region can only imply more censorship.

But ICT offers unprecedented opportunities to eradicate poverty, empower the poor to venture into business, and access higher quality education and healthcare. ICT has also been identified as a panacea for unemployment, another scourge in Africa. According to Mark Abel Mukenge, the CEO of Rokkup, a tech start-up in Rwanda, ICT represents a real opportunity for Africa's young people to start businesses, get a high-quality education and find partners and markets worldwide. "I actually only met my co-founders from Britain online," Mukenge said, "but we are now in our second year of operation."

Another example is Flutterwave, a Nigerian Fintech start-up based in the US, which has more





Photo: verveagency.com

ABOVE: Nigerian start-up Flutterwave intends to build bridges between financial systems in Africa, where dozens of banks, currencies, and mobile wallets have previously been disconnected from one another.

than 465 employees, most of them in Africa. ICT is also expected to improve access to high-quality education for Africa's young people. For example, in Rwanda, Huawei recently signed an agreement with the Ministry of ICT and Innovation to establish academies at the University of Rwanda and Rwanda Polytechnic. Virtual classrooms are also expected to be a game-changer in quality education provision, particularly for underprivileged students.

But most US companies have their data centres in their own country, not in Africa, which means the continent has no control over its data. Data is the new oil in today's digitalised world, and whoever controls data controls everything. This implies undue power, especially when we consider that data is concentrated in the hands of a few firms. China, for its part, appears to be assisting African countries in building their own data centres, with Senegal being a case in point. There, China provided a

\$70 million loan for this purpose, with Huawei providing material support. Given that the US and others have flagged Huawei for surveillance and espionage threats, which the company denies, shouldn't Africa be concerned about the security of the data centres being built by the Chinese?

At the end of the day, while there is justified optimism about ICT's positive contributions to socioeconomic development, it is essential to acknowledge its hazards. Investments in ICT, particularly from the US and China, need to be scrutinised so that Africa prioritises investments that maximise its socioeconomic development and not get embroiled in the ongoing tech war. So far, the position of non-alignment seems to be working. However, Africa needs to step up its own initiatives to control the narrative and grab the very attainable goal of leapfrogging other regions into the Fourth Industrial Revolution. [GGV](#)

How the contest for global digital hegemony impacts Africa

By Dennis Matanda

The expression “tenacious contention” suggests that China and the United States are at an impasse after a dogged battle for the position of global hegemony. But what if hegemony is less about deliberate, tenacious actions and more like the gravitational pull that occurs when a larger, more powerful nation exerts its influence on smaller ones? In this case, China’s laudable economic and digital enhancing efforts in Africa may even herald the Middle Kingdom’s inevitable supremacy in global politics, economics, military affairs, and specifically, in the race for dominance in the digital space.

But what if the US is not an ardent contestant for digital hegemony? Why is the US Department of Defense not rushing back into the digital race with research and funding, following the recent launch of China’s Digital Silk Road Initiative? And why do media houses still refer to China’s efforts as “attempts to capture control” from the US? Could

America’s uncoordinated efforts in the digital space counter China’s unified focus on digital supremacy?

I present these broad questions because the answers may not have the sort of rose-coloured scenarios some in Beijing and Shanghai hope for. In the same vein, any supposed contention for global hegemony may not present African capitals with the sort of bargaining chips some aspire to cash in on the sidelines of a Sino-American battle for spheres of influence.

Antonio Gramsci defined hegemony as cultural, moral, and ideological leadership over allied and subaltern groups. More recently, Robert Kagan referred to it as a “condition” and not a “purpose”. What these two authors have inherently understood is that the concept of political or digital hegemony prioritises the optimal balance of consent and coercion. For instance, by investing state resources to exert strategic, social, and military control of the

global digital technology arena, China may have adopted Robert Cox's hegemonic facets around "conditioning" and "socialisation". In contrast, Chinese technology is readily available. African autocrats have also deployed it to tighten nooses around social and digital media freedoms. Juxtapose that with how many Africans warmly embrace unfettered market-driven internet access.

Granted, this introduction presumably glosses

over the significant political, economic and military strides China has made since 1978. By impressively leveraging foreign direct investment (FDI) and total factor productivity, China has redefined what it means to be a developing country. By infusing significant resources into the global digital environment, China can conduct cyber warfare just as effectively as it can build more seaworthy military vessels. The world's manufacturer is now a major player in designing next-generation digital products and services and is expected to surpass the US as the world's largest economy in 2030.

But if we are discussing hegemony in its traditional sense, we must ask whether China dominates the Far East in the uncontested fashion a regional hegemon is ideally supposed to? Unfortunately for China, this is not the case. Whereas Southeast Asia's developing nations are well served by China's inexpensive, digital wireless and broadband internet solutions coverage, American behemoths like Amazon, Apple, Cisco,

and Microsoft have more enormous footprints than China's Tencent, Alibaba, and WeChat Pay. As Jake Sullivan – shortly before he was elevated to US President Joe Biden's National Security Advisor – suggested, China is still surrounded by American military bases, allies, and security partners like Vietnam, Taiwan, and Japan. And these American allies are wont to resist rather than accommodate the Chinese ascendancy.

Invariably, it is essential to note that unlike China, which seeks alliances with Africa for existential reasons, the relationship between Africa and the US is not driven by economic, security, or diplomatic reasons.

On the other hand, coupled with Chinese investments in Africa's telecommunication infrastructure, Huawei and Zhongxing Telecom's affordable products have taken significant market share from Ericsson, Alcatel, Nokia, and Siemens. From this perspective, China is seeing success on the hegemony front. Paul Nantulya of the US Defense Department's Africa Center for Strategic Studies has intimated that successfully applying a Guānxì-based system of

reciprocity, personal ties, and mutual obligations in Africa ensures and secures Chinese national interest and security in Africa for years to come. China also surpassed the US as Africa's largest trading partner in 2009 and has relatively more diplomatic posts in the world's 221 destinations for FDI.

Here, my well-connected and well-read friends in various African capitals may sit back, fold their arms, and point out that China has won the battle for both global and digital hegemony in Africa's eyes. They will show you the number of Chinese infrastructure projects, and the number of countries

signed on to take Huawei's 5G services. Of course, I understand these sentiments. Besides, why would Africa not appreciate the Chinese when the latter's consumer products are much cheaper than American ones? What about where Chinese bureaucrats typically sign off on projects and loans in much less time than most western-allied financial and concessionary lending bodies?

Fine, China deserves all the credit it can get. It matters less that the US is the most significant contributor to the US Agency for International Development's (UNAIID) budget and more that China lent \$85 million to the Cameroonian government to build its South Atlantic Inter Link (SAIL) facility. On top of having the world's most voluminous training programmes for African professionals, Chinese venture capitalists have become more synonymous with Nigeria's technological boom than behemoths like Google and Microsoft. To this, Nantulya pointed out that there is Chinese virtuoso in providing soft and hard infrastructure to Africa in exchange for mega consortiums that should marshal strategic minerals like cobalt and copper for years to come.

Invariably, it is essential to note that unlike China, which seeks alliances with Africa for existential reasons, the relationship between Africa and the US is not driven by economic, security, or diplomatic reasons. Yes, the US will insert its marines in Mali or Niger. And here, I must qualify my statements. The American people care about what happens in Africa. They will send their "boys and girls" to conflict, hunger, drought, and democratic governance situations. But the truth is that Africa plays an infinitesimal role in America's foreign policy or economic constellation. Where the total USAID budget for the continent of more than one billion Africans – many living below the poverty line – is less than \$4 billion annually, compare Africa's needs with the \$40 billion apportioned to help Ukraine deal with its Russia problem.

Further, the US Commerce Department's Bureau

of Economic Analysis (BEA) will reveal that between 2000 and 2020, the cumulative amount of US direct investment abroad (USDIA) to all 55 member states of the African Union was less than 0.8% of the approximate aggregate \$6 trillion invested around the world. American exports to Africa are below par, and the minuscule African exports under the African Growth and Opportunity Act (AGOA) favour crude oil, textiles, and apparel exporters.

Hence, even if the Biden administration does not talk of China as much as the Trump people did, China's "enthusiasm" for Africa shall not prompt America to change how it deals with Africa. If this were the case, the US would have removed its punitive sanctions against Zimbabwe once China made a play for Zimbabwean copper, uranium, and diamonds. Unlike the government-led institutions permeating China's foreign and economic policy, America's public policy for Africa is designed by those private sector interests (both local and foreign) that seek to influence it. As the Africa Development Bank's (AfDB) Akinwumi Adesina found, African entities must garner interest groups so that they can control the amounts inserted into the appropriations bills that are signed into American law.

At this juncture, you could ask: did the contention for hegemony between the US and the former USSR affect Africa's socioeconomic fabric? The reality is that many more Africans share a language and cultural heritage with the Americans than they do with the Chinese (and Russians before them). While Africans bought Russian cars, they bought more American-allied goods such as Japanese Toyotas. Today, we know that Chinese influences are not as attractive as Netflix, Facebook, Twitter, and Instagram. Hence, as long as Chinese products – digital or otherwise – are driven more by strategic concerns than by consumer preferences, any Chinese gold medals in the contention for digital dominance shall be Pyrrhic victories in the war for digital hegemony. 

The battle for HEARTS AND MINDS

China and the US pursue different digital diplomacy strategies in Africa

By Bob Wekesa

The United States and China have engaged in intense geopolitical competition in Africa since the turn of the millennium, which has seen tons of ink spilt in the media on this matter, as well as on intellectual and academic platforms. But what is often not appreciated is the increasing sophistication of the battle between the two powers to win African hearts and minds.

One nascent and intricate phenomenon of this competition is a suite of strategies deployed by US and Chinese officials and tech company executives, leading to advertent or inadvertent clashes between them on the continent.

Scholars and intellectuals conceive the deployment of digital technologies for political-economic purposes as techno-politics and geotechnology. Thanks to their advancements in science and technology, the US and China are clear leaders in this blending of politics and technologies in the pursuit of their global ambitions. For instance, a study by economics and trade research company, Statista, shows that the US and China were consistently ranked first and second in global information and communication technology (ICT) from 2013 to 2021.

Statistics also show that China is the world's leading manufacturer and exporter of mobile phones, while the US is recognised as the trailblazer in ICT innovations. The technological power that these two big powers have amassed translates into geopolitical power around the world, Africa included.

While debates and discussions around techno-politics and geotechnology tend to be broad and lumbering, it is in the sphere of diplomacy that we see these notions at play in more explicit terms. US and Chinese competition in Africa is indeed evident in a set of practices labelled as digital diplomacy, which describes a process in which state and non-state actors seek to influence foreign publics with an eye to achieving their goals, be they economic, political, or cultural.

Digital diplomacy is a relatively new terminology understood at the basic level as the use of digital technologies to promote the interests of one country in another country or region. It also includes the foreign policy strategies of countries to promote their digital economies. It is for this reason that the US and



China's use of their digital assets and capabilities can be comprehended as digital public diplomacy, cyber diplomacy, or diplomacy in the digital age, among other iterations. The question then is: how do Chinese and American digital diplomacy strategies in Africa compare?

A historical view can help us understand the digital technology-inspired changes at play today. In the not-too-distant past, the US and Chinese governments primarily plied their foreign influencing programmes through either state-owned or private media. On the US side, the Voice of America (VoA) was the main platform for broadcasting its values to Africa. For China, key platforms for communicating its interests in Africa were media platforms such as China Radio International (CRI) and China Central Television (CCTV). But two points are worth noting with new and emerging practices. First, these broadcasters are now deployed not just in their traditional, analogue formats, but via digital platforms such as YouTube and social media platforms – Twitter, Facebook, LinkedIn, Instagram, Flickr, TikTok, WhatsApp and WeChat.

Secondly, social media platforms now provide the Chinese and American governments, and private sector actors, with a direct route to reach African audiences. If you have “followed” the Twitter handle of the Chinese embassy in South Africa, then you have consumed Chinese digital diplomacy, which emphasises principles such as non-interference in the affairs of sovereign nations and a pursuit of “win-win” benefits. If you follow the LinkedIn page of the Bureau of African Affairs of the US State Department – the equivalent of America's foreign ministry – then you will be attuned to US foreign policy towards Africa, which highlights democracy, human rights, and transparency.

From the perspective of social media use as a means of digital diplomacy, it appears that US platforms are more successful than the Chinese. A key factor underlying this is one of perception. Most of the social media platforms popular in Africa –

particularly Facebook and Twitter – are American rather than Chinese. Chinese social networking sites such as Sina Weibo (the equivalent of Facebook), Tencent QQ, and many others simply do not register on Africa's social media radar. There was an attempt in 2017 to introduce WeChat to rival its American counterpart, WhatsApp, but that effort did not gain much traction. The Chinese outlier is the music and video sharing network, TikTok, which has in recent times taken Africa's youth by storm.

Africans' use of US rather than Chinese social media means that they are consuming more American than Chinese culture, thanks to exposure to US content that is embedded in the platforms. On the other hand, not much Chinese content is reaching African netizens.

China, however, makes up for weaknesses in the communicative benefits of the social media sphere with what we may refer to as a policy framework-based digital diplomacy strategy. Through its Forum on Africa China Cooperation (FOCAC), China has elaborated and implemented many tangible digital development initiatives. During the 2021 FOCAC conference held in Dakar, Senegal, for instance, China committed to “undertake 10 digital economy assistance projects for Africa, support the development of African digital infrastructure, and continue to hold the China-Africa Digital Cooperation Forum and the China-Africa BDS Cooperation Forum”, among an array of other investments.

Chinese diplomatic approaches toward Africa are wrapped around the Digital Silk Road, which is part of Beijing's ambitious geopolitical strategy, the Belt and Road Initiative (BRI). A major Digital Silk Road project is the Pakistan East Africa Cable Express (PEACE) initiative funded by the Export-Import Bank of China, aiming to link eastern and southern Africa's internet infrastructures with Asia and parts of Europe. Although the US government has several ICT development programmes such as the US Trade and Development Agency's (USTDA)

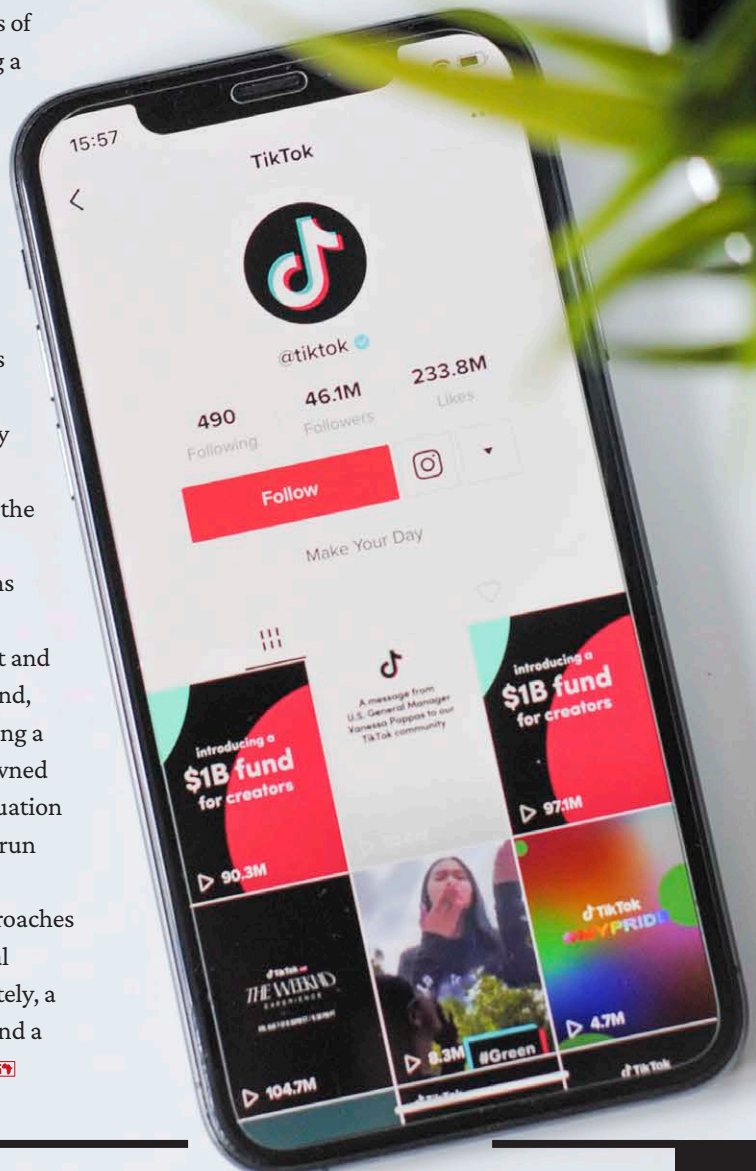
“Access Africa” initiatives, they are not nearly as well resourced as the Chinese investments.

The corporate social responsibility and the philanthropic missions of Chinese tech companies are more closely aligned with their government’s diplomatic strategies and interests than is the case with linkages between American companies and official US diplomatic mechanisms. Chinese companies such as Huawei and China Mobile, for example, have stronger and direct support from their government and the Communist Party of China than their American counterparts.

Washington, on the other hand, struggles in its efforts to promote the business activities of its companies in Africa and ends up playing a comparatively lighter, facilitative role. By contrast, Beijing often deploys Chinese digital technology companies as avenues for digital diplomacy. A case in point is the coordination of Covid-19 donations to African countries by the e-commerce company Alibaba through the Jack Ma Foundation, in the early phases of the pandemic in 2020. These donations of medical equipment and supplies to many African countries were coordinated with Chinese embassies, the African Union, and the African Centres for Disease Control (CDC).

US government and diplomatic missions had a far lighter involvement in donations from American tech firms such as Microsoft and Apple to African countries. On the other hand, a good number of Chinese companies playing a digital diplomacy role in Africa are state-owned enterprises, in contrast to the American situation in which the government does not directly run any enterprises.

We can conclude that the differing approaches between China and the US in Africa’s digital diplomatic sphere are informed by, alternately, a socialist ideological persuasion in Beijing and a capitalist superstructure in Washington. [GGY](#)



SOVEREIGNTY AND DIGITAL TRANSFORMATION IN AFRICA

By Tyler Venske

A great power competition has returned to centre-stage of the geopolitical landscape between the US and an emerging China. Constant technological advancement and global connectivity in the digital space are critical in shaping the outcome of this competition, ultimately determining the modern international order.

Africa has an urgent need for infrastructure development. Infrastructure is vital for sustainable economic development and provides efficient ways to achieve greater productivity. The lack of capital for infrastructure, in all its forms, has created a complex undertaking for most African nations. There is a lack of basic telecommunication and a need for upgrades to existing infrastructure to continue being relevant in the digital age.

This digital transformation is paramount to solving Africa's enduring social and economic challenges. China can approach African heads of government to end the challenges many nations face. The US faces numerous handicaps, among which are Africans' aspirations



Photo: Tony Karumba/AFP

ABOVE: The M-Pesa cell phone banking system, dependent on Huawei's Mobile Money platform, has assisted millions of Africans to move into the formal financial system.

to maintain sovereignty while achieving economic growth. Sovereignty, defined by African leaders, is about survival without major interference.

The trade war initiated by former US president, Donald Trump, has led to the US-China competition underway today. While US government officials have claimed it was about trade imbalances, in reality, it is a global battle for technological leadership and dominance. Washington's true objective is to hamper China's growing influence by using trade embargoes to frustrate China's technological expansion. The US-China trade war has evolved into a tech war, whereby the nation-state that gains control over the technological sphere can generate significant headway for achieving geopolitical aims, from economic prosperity to military superiority.

The competition over information technology draws parallels from historical tussles between the great powers. For example, US and Soviet Union efforts to win the space and nuclear arms race share similarities with the current China-American technwar. The central concern in all these forms of competition narrows down to which system of governance will triumph. Without direct hostility and conflict, China challenges American global power through digital competition.

Beijing endorses an archetype of state-led capitalism and political illiberalism as a rising power, posing a threat to the US's liberal-democratic ideas. Chinese President Xi Jinping's communist autocracy benefits from the efficiencies of direct development; government and industry work together for and under the same leader. Technological authority in the US, by comparison, requires a collaborative approach between the private sector and government. The scope of China's technological advancements underscores the repercussions of the US's overall declining economic monopoly.

The tech race is also a contest of whether the US or China will set the standards of digital governance.

Technological modernisation has accelerated the race from 5G, Big Data, Internet of Things (IoT), and satellite navigation to robotics, biotech, aviation, agriculture, artificial intelligence (AI), and clean tech. In recent years, the flash point of antagonism has been the rise of 5G technology and its role in shaping the fourth industrial revolution.

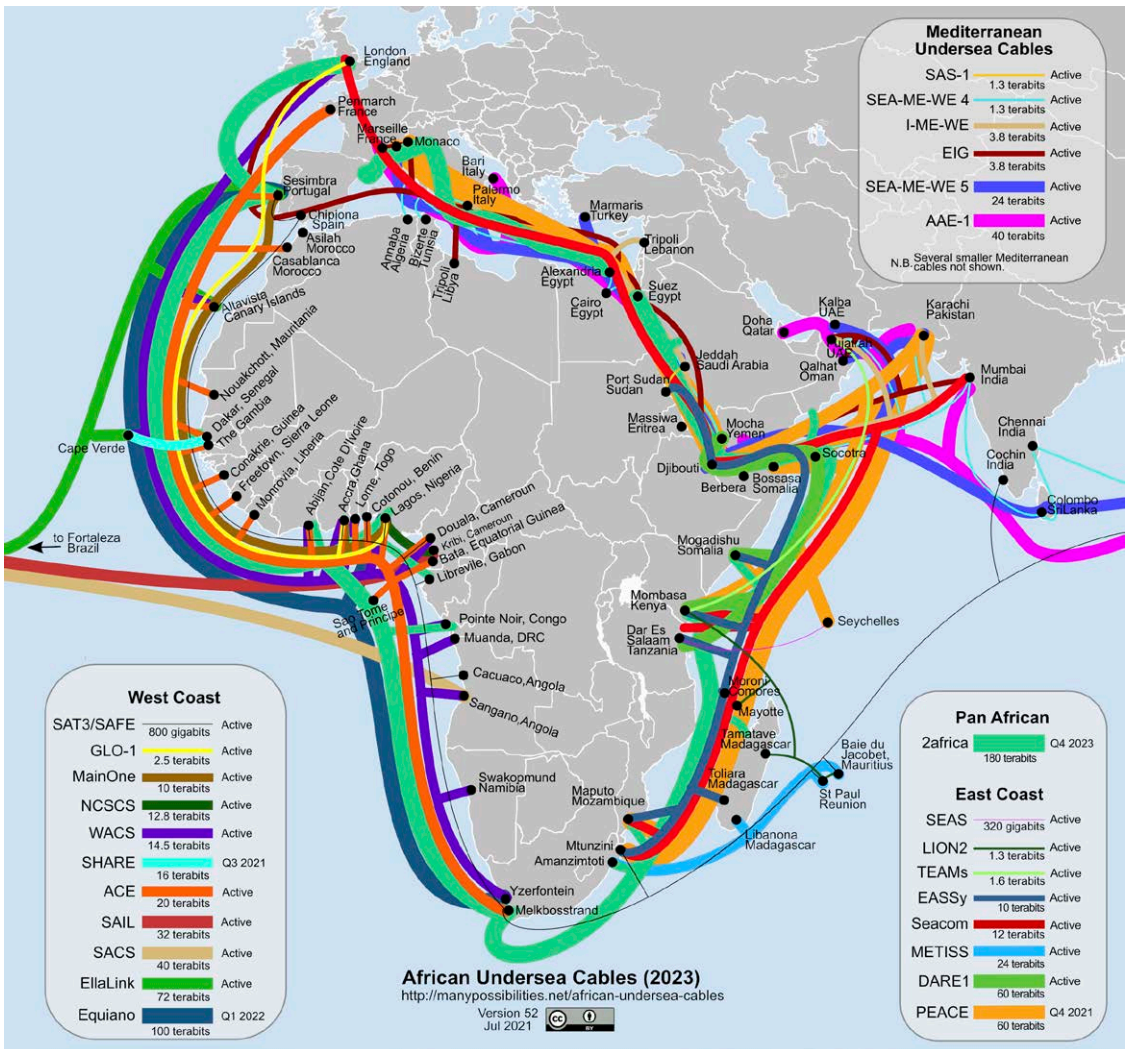
China's significant headway in the Information and Communications Technology (ICT) arena is being championed by Huawei; a world leader in equipment and mobile sales. The importance of the ICT sector between the two powers is the knock-on effect on other leading sectors of geopolitical power. The perceived winner of this clash will ultimately be accredited with augmented positive results economically and militarily.

The Digital Silk Road (DSR) is part of the Belt and Road Initiative (BRI) that is focused on enhancing digital connectivity abroad. The DSR acknowledges that technological dominance will play a vital role in boosting military and economic power in the future. Chinese companies collaborate with their own and African governments to secure and provide substantial infrastructure funds, loans, and assistance to nation states in dire need. These support mechanisms hold no political or economic conditions, making them extremely attractive to a continent that pursues sovereignty for its survival. China's support and hands-off approach are attractive to African nations' quest for development.

The colossal breadth of the technological engagement between China and Africa goes back decades. Africa experienced a telecommunications revolution in the 1990s. Coinciding with this, Chinese firms flocked to the continent to create ties with governments and support infrastructure upgrades. These ties gathered further momentum from the 2000s onwards.

The continual support, expansion, and enhancement of technological infrastructure in the African market witnessed Chinese tech companies permeate all layers of Africa's telecommunications

Image: flickr.com/photos/ssong



ABOVE: The proposed African undersea cable network layout as planned for 2023.

sector. From undersea cables, satellites, and backbone infrastructure to applications and platforms for individual customers, Chinese ventures across the continent have heightened optimism that the socioeconomic ills vexing African countries can be fixed. Beijing’s infrastructure development programmes are significant for the advancement of Africa as they boost long-term economic growth and development, increase productivity and attract capital by facilitating market access.

African internet penetration lags behind the global average of 35.2%.

Chinese companies provide indispensable support to African nations through competitive pricing, low production costs, cost-effective equipment and solutions, and access to Chinese state-subsidised funding and support. Huawei, heavily supported by the government, is a crucial component of China’s involvement in the digital sector. Rural towers and mobile phones have brought internet access to remote African regions.

Moreover, the M-Pesa cellphone banking system, dependent on Huawei’s Mobile Money platform, has assisted millions of Africans to move into the

formal financial system. Such infrastructure enables countries to exploit novel opportunities to achieve universal access and participation in the global economy, catalyse the growth of enterprises, improve productivity and services, and enhance health care, disaster management, and logistics.

Beijing has and continues to offer Africa substantial infrastructure funds. Instead of focusing on traditional aid, Xi Jinping and his government have found innovative ways to support a continent in need. The Chinese approach to Africa has been received with open arms by governments who need new solutions to existential and enduring challenges that the US has disregarded for years.

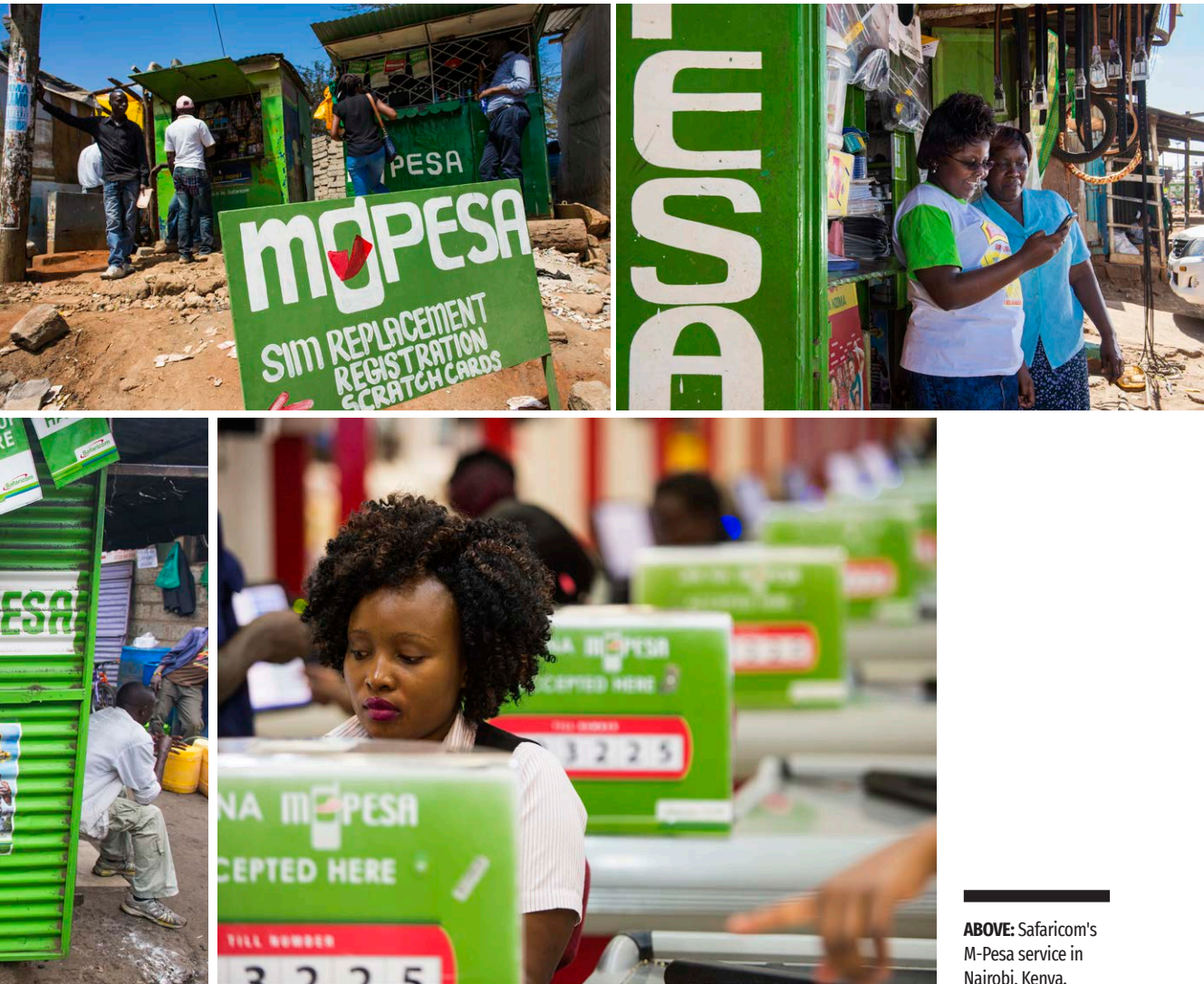
The US has never had a fully-fledged playbook for the African continent and the Biden administration is no exception. For as long as the US has been involved in Africa, ambassadors run day-to-day operations, individually tailoring their approach to the continent's 55 countries. Ambassadors are the primary decision-makers, who receive support and direction from the State Department in Washington. American mission chiefs collaborate with African heads of state, creating a gap between the upper echelons of the US government and its African counterparts. This approach entrenches coordination issues that have been prevalent for years. Likewise, the US government has floundered in addressing the lagging economy and investment concerns that face most African nations.

Overall, America does not have a tech strategy for Africa, mainly because it does not have one for itself. Beyond leveraging economic and intelligence-sharing partnerships with allies to minimise China's global technological influence, the US has failed to evolve a calculated strategy. Rather, the American capitalistic private sector drives the US technological footprint in Africa. African companies and governments work directly with US counterparts on research and development. Beyond American private investment



into specific technological industries, the US has done little to address or strengthen Africa's information technology sector. US engagement on the continent primarily follows political and humanitarian concerns, instead of focusing on the overall upliftment of Africa. Thus, traditional aid is abundant through humanitarian assistance, election monitoring, and the containment of infectious diseases and terrorism.

Though generally not expressed as crassly as it was by Donald Trump, the standard US narrative about Africa is substantively not much different from how he characterised it. So far, the Biden administration has maintained significant policies



ABOVE: Safaricom's M-Pesa service in Nairobi, Kenya.

and policymakers' general approach from the Trump era. The US also uses its position in international organisations to support Africa more broadly. For example, the World Bank and International Monetary Fund (IMF) approve African countries for loans and infrastructure programmes with conditions that support a US-led global order. This aid and support are essential. However, there is a lack of attention on the long-term upliftment and to end of the socio-economic miasma that plagues Africa.

China, however, has been able to reflect African realities in its political playbook. Instead of ignoring African preferences and policy priorities, China has begun to address the socioeconomic conditions

challenging Africa. In turn, Africa, which does not have the self-sufficiency to adequately promote social and economic development, welcomes China's unconditional assistance.

So, as the rivalry between the US and China escalates, Africa will be one of the most important theatres and potential benefactors. China has the upper hand. Instead of engaging with a continent in need, the US has continued to implement policies that do not prioritise African preferences. China has stepped in, created relationships, and wrought progressive transformation. Unless there is a shift in US policy, China's advancement of Africa's ICT sector will leave the US trailing substantially behind. [GGP](#)

Photos: Vodafone Group/Philip Mostert/pmpphoto.co.za



The internet WAR

By Emeka Umejei

In his 2020 speech on his country's Defence and Deterrence Strategy, France's President Emmanuel Macron identified three paradigm shifts causing geopolitical tensions across the world: strategic, political and legal, and technological. First, he said, the "global competition between the United States and China is an established strategic fact that will structure all international relations". Elucidating technology as a paradigm shift, Macron said that "digital technology has become a field of confrontation, and the control of this technology has exacerbated rivalries between powers, which see it as a way to gain a strategic superiority."

Other global leaders have expressed concerns about the decoupling of US-China technology. Technology decoupling amounts to a separation between technologies originating in the US and China. United Nations Secretary-General Antonio Guterres has noted that the "US-China technology divide could cause more havoc than the Cold War".

For its part, the Eurasia Group considers US-China decoupling in the technology orbit as "the single most impactful development for globalisation since the collapse of the Soviet Union".

In his foreword to Jon Bateman's book, *US-China Technological "Decoupling": A Strategy and Policy Framework*, Eric Schmidt, the former CEO and chairperson of Google, while acknowledging there is a partial technology separation between the US and China, raises a pertinent question: "How partial should this partial separation be? Would 15% of US-China technological ties be severed, or 85%? Which technologies would fall on either side of the cut line?" There is no direct answer to Schmidt's question yet, but there is a general agreement that such questions cannot be dismissed with a wave of the hand.

An emerging reality of US-China technology decoupling is techno-nationalist ideas that depict technology as an arena for interstate struggle



Photo: Getty Images



Photo: Patrick T. Fallon/AFP

rather than a neutral global marketplace. In August 2020, the Trump administration launched the Clean Network Initiative programme to safeguard “American citizens’ privacy and companies’ most sensitive information from aggressive intrusions by malign actors such as the Chinese Communist Party (CCP)”. In return, the Chinese government launched its own global data security initiative.

The outcome of the geopolitical rivalry between the US and China over technology will redefine institutions governing global politics and trade. According to Deutsche Bank, the geopolitical cost of US-China tech rivalry in the ICT sector is around \$250 billion a year. Furthermore, the geopolitical impact of a technological Cold War between the US and China could split the world into two halves

LEFT: Eric Schmidt, co-founder Schmidt Futures and former chairman of Google.

by a “tech wall” – resulting in two opposing tech regimes. This means countries would have to choose sides between the US and China, and the impact of the “tech wall” on every sphere of life globally may last decades, if not generations.

The fragmentation of the internet into several parts across national borders is called “splinternet”. Some causes of the fragmentation of the internet include data laws (laws and politics); the Application layer (website ranking locality); network interference events, IPv6 adoption (transfer of data between networks), and no proxy (the transfer of data within a local network). These fall into the following categories: nationalising software and regulations, nationalising hardware networks, and nationalising networks. The outcome of US-China technology decoupling will have a bearing on the governance of the internet – and Africa is one of the epicentres of this rivalry.

Hence, this article has sought the views of ICT experts, scholars, and journalists from across Africa on what they see as the implications of US-China technology decoupling on the continent. Put differently, what is the likely effect of US-China technology decoupling on the governance of the internet in Africa? Some of the scenarios that emerged from interviews with experts suggest two likely trends.

First, technology decoupling between the US and China could result in the split of the internet in Africa, resulting in a choice between either the US or the Chinese versions. However, it must be acknowledged that in some instances, African countries could decide to adopt both a Chinese and US version of the internet.



LEFT: Abdulai Awudu, director of programmes at Ghana's Multimedia Group.

However, experts think it would be better for Africa to develop its own version of the internet without leaning on China or the US, and by doing so adopt a neutral position in the technology rivalry between both global powers. Most people interviewed emphasised Africa should look neither east nor west but rather inwards to develop the infrastructure that will enable it to enjoy some form of independence from both sides of the contest. They argued that Africa should replicate the much-vaunted “we neither look east nor west” mantra of the Cold War era

when most African countries remained neutral.

However, the reality remains that the continent has not been concerned about how people use the internet; the internet space in Africa has always been tied to the apron strings of foreign powers. So, it is considered relevant for African leaders to work out a collective bargaining power. In this sense, African leaders need to rediscover themselves and build an Africa that is independent of foreign interventions.

Abdulai Awudu, the director of programmes at Ghana's Multimedia Group, argued that African countries should not choose sides but, as the late Kwame Nkrumah admonished, “we neither look east nor west, we only look forward”. For his part, Auwal Alhassan Tata, formerly the secretary-general of the Internet Society, Nigeria, noted that it was time Africa started to develop its own network to cater for the continent. But that, he added, could further fragment the internet.

“Ideally, Africa should take the bull by the horns and start preparing for an African network,” he said. “However, what that means is that we are further fragmenting the internet. We could create our version of the internet but, you know, Africa is not



like other continents; there is so much division in Africa. Even if we have an African internet version, you will start seeing a Francophone Africa internet, North Africa, English-speaking Africa, West Africa, and South Africa - and before you know it, it will be so fragmented as if we have a local area network.”

Nanjira Sambuli, a Kenyan digital expert, explained that the “most strategic work we should be doing on the continent is resetting our own rules of engagement” with tech companies, whether “they come from the west or east or outer space”.

However, the difficulty with this view is that African countries have neither the financial capacity nor the political will to embark on massive ICT infrastructure development. Hence, there is the likelihood that African countries will choose between the US and China, or even Russia, if there is a fragmentation of the internet in Africa.

Sambuli noted that “if heads of African governments have to choose sides in the contest for cyberspace, they will side with China because it is easier and has fewer hassles with all things pro-democracy.” However, she added that “if there are any sides to be taken here, the African government has a responsibility to, ideally, choose the side of their people - but they have never been in the business of putting the people first.”

Unfortunately, Africa does not have continent-wide regulations like the EU’s General Data Protection Regulation (GDPR), which could mediate the implications of US-China technology decoupling in Africa. However, local laws could be activated, but how far they could go for an individual African country is problematic. It remains to be seen whether Africa will adapt, adopt, mediate or choose sides with the US or China in the emerging technology geopolitical rivalry. Whatever choices African countries make have implications for Africa’s fragile democratic processes. It is a long game. [GGV](#)

ABOVE: Nanjira Sambuli is a Kenyan researcher, writer, policy analyst and strategist interested in and working on understanding the unfolding, gendered impacts of ICT adoption on governance, media, entrepreneurship and culture.



ABOVE: A 1973 archive image of Zambian prime minister Kenneth Kaunda and Tanzanian president Julius Nyerere visiting a tunnel constructed by a Chinese team, in Uhuru, Tanzania.



BIG-SPENDING CHINA WOOS AFRICA WITH ITS BRI AND DSR

By Prince Mudau

The landscape of foreign aid in Africa has shifted from being strategically western dominated, specifically by the United States, to China, emerging as one of the leading countries providing aid to the continent, especially in technology infrastructure.

Chinese foreign expenditures in Africa shot up from \$631 million in 2003 to \$3 billion in 2015, while US spending in Africa has decreased. Many western donors have taken a back seat in developmental assistance for technological infrastructure in Africa, and China is building a solid presence on the continent through its various programmes aimed at technological

infrastructure. Through its Belt and Road Initiative (BRI) and Digital Silk Road (DSR), China is cementing its position as a partner of choice in foreign assistance for African countries in the 21st century.

What does this mean for the US? To understand the meaning and implications of China's expansion in terms of digital technology in Africa, it is essential to first give context to the nature of Chinese foreign aid on the continent and its rise.

Contrary to popular belief, China is not a newcomer in African developmental aid. China began providing African countries with foreign



assistance after the 1955 Asian-African Conference in Bandung, Indonesia. This initiative was backed by the Chinese government's eight economic principles for foreign assistance. In the 1970s, China built the TAZARA railway line between Zambia and Tanzania with interest-free loans. During that time, China had more aid programmes in some African countries than the US. With Chinese economic liberalisation in the 1980s, its foreign aid to Africa continued to grow. Chinese foreign aid is a mixture of concessional loans, aid, and interest-free loans.

However, the Chinese government has created an opaque financing approach, which researcher Motolani Agbebi has explained as subsidised loans

given to their clients, with the aim of Chinese government-backed firms receiving contracts for the projects through a closed-door bidding process.

Agbebi argues that these "DSR projects are primarily driven by government-to-government initiatives and backed by concessional lending agreements that favour Chinese contractors, which undoubtedly advantages Chinese firms". Therefore, Chinese funding is not pure aid but a mixture of several foreign assistance methods with various returns for the Chinese government and firms. For example, Sierra Leone's \$30-million loan to finance its contract with Huawei for the second phase of its National Fibre-Optic Backbone Project was funded



Photo: Muluga Avenue/AFP

ABOVE: Passengers queue to ride Ethiopia's new tramway in September 2015 in the capital Addis Ababa. Sub-Saharan Africa's first modern tramway marked the completion of a massive Chinese-funded infrastructure project hailed as a major step in the country's economic development.

by Exim Bank of China. The agreement was between the Sierra Leone finance ministry and the bank's representative, the political counsellor of the Chinese Embassy.

In 2013 China launched the BRI, a flagship developmental programme consisting of different projects focused on domestic and international development. Paul Nantulya, a research associate at the Africa Centre for Strategic Studies, asserts that the aim of BRI is "the building of a new global system of alternative economic, political, and security 'interdependencies' with China at the centre." The BRI programme has grown since its inception in 2013 to include more than 146 countries worldwide, 46 of them African.

One of the fundamental initiatives of the BRI is the DSR. According to global digital economy expert Winston Ma the DSR seeks to make "infrastructure development more viable, efficient and sustainable in the

long run” and “bring advanced IT infrastructure to the BRI countries, such as broadband networks.” It also seeks to create “e-commerce hubs and smart cities, [with] medium and small merchants connected to global trading via digital networks”, “harnessing and the application of big data to solve environmental challenges directly”, and “providing basic internet access”.

The DSR responds to Africa’s greatest need in the 21st century, filling the digital technology gap.

China’s approach through the DSR fits strategically into providing for that need, and it is China filling the void. This void was created by the retreat of western donors in the sphere of infrastructure funding in Africa. The Director of the Development Co-operation Directorate of the OECD, Jon Lomøy, avers that the decrease in western aid in Africa was firstly caused by a greater emphasis on operation and maintenance costs, leaving many projects as white elephants.

Secondly, western donors started believing in financing African infrastructure development through private commercial investments. Lastly, assessments in project planning become costly and politically cumbersome as they involve various aspects of the recipient country, including “technology, economics, gender, environment, socio-cultural dimensions, corruption, risks for harassment to mention some”.

The US approach toward foreign aid, which insists on promoting democracy and respecting

human rights for recipient countries to receive funding, worsens the situation and opens the space for China, which does not require human rights assurances to provide funding for development purposes.

According to researcher Chaorong Wang, the US spends more on health and education while China spends more on infrastructure, specifically transportation, energy, and communication. Wang states that “US spending on the top three sectors

receiving Chinese aid is only at 2.6%, 0.8%, and 0.07% of the total official development assistance (ODA) amount.”

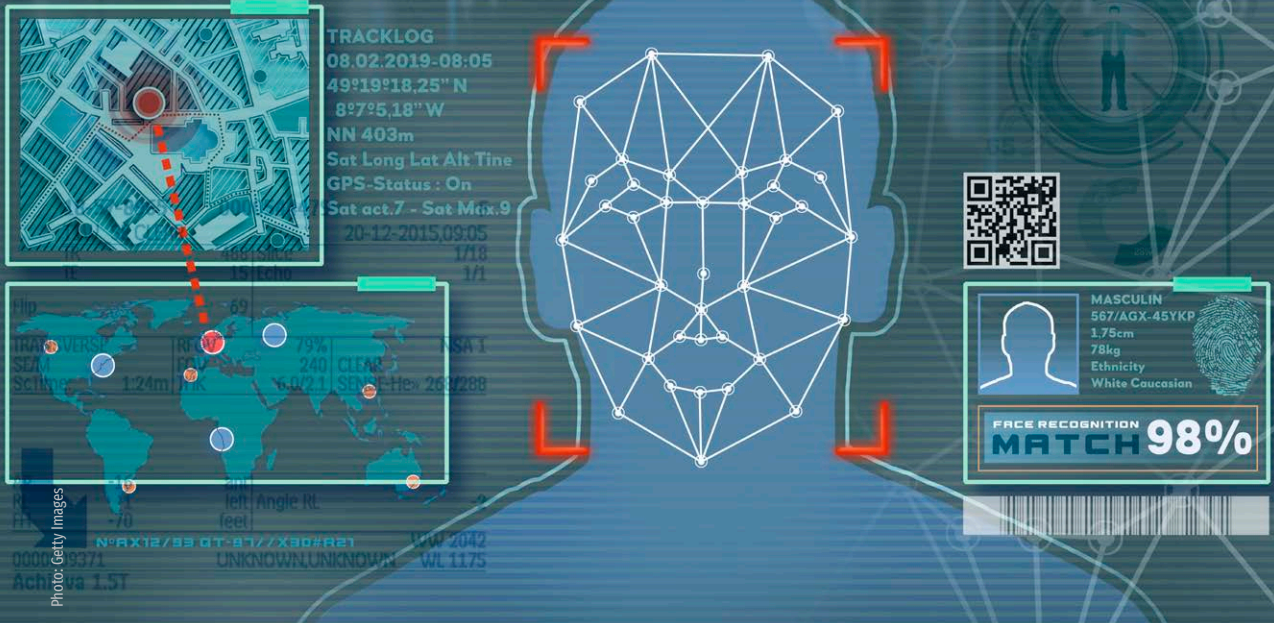
As a global power, the US failure to extend its influence in Africa’s digital technology infrastructure development has dire implications and meaning for its foreign aid efforts (democracy and humanitarian) and foreign interests in Africa – and its position as a global power.

First, the US has positioned itself as a leading global power that fosters and supports democracy in Africa. As

a result, most of its funding in Africa is spent on democracy-building initiatives. However, Africa’s solid Chinese digital footprint is undoing that work as most repressive African governments are now using digital systems to repress their citizens. For example, Chinese companies have entered contracts with the Zimbabwean government to provide surveillance and law enforcement facial recognition technology. This will potentially increase the

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Zimbabwean government's human rights abuses. However, these issues are not in China's foreign interests, though they are for the US, which is slowly losing power in Africa's digital world.

Second, Chinese digital companies, including Huawei and ZTE, have been banned in the US due to allegations of spying. Equally, US companies like Google have indicated their intention to take Chinese gadgets off their platforms. However, this aggressive move by the US was not thought through, especially its impact on African companies, where Chinese digital infrastructure is widespread.

Instead of hindering Chinese digital footprint growth, this may embolden it and encourage African countries to embrace Chinese digital technology fully. Senior Policy Fellow at the Centre for Global Development Gyude Moore notes that the US did not offer African countries an alternative to counter Chinese digital infrastructure by banning Chinese technology. South African President Cyril Ramaphosa expressed concern about the US actions against Chinese firms, which he believed are "to deliver a comprehensive and what we believe to be

ABOVE: Chinese companies have entered contracts with the Zimbabwean government to provide surveillance and law enforcement facial recognition technology.

an advanced solution in the telecommunications space." In most African countries, the response to the US trade war with China has been met with the same concern.

Last, the 21st-century Cold War is being waged in the arena of digital diplomacy, and through its funding and provision of aid in Africa, China is getting the upper hand. However, there is hope for the US in its launch of the Build Back Better World (B3W) economic programme and its G7 partners. The initiative aims to mobilise finance for infrastructure programmes that involve technology for low- and middle-income countries. In addition, the initiative aims to counter the BRI. This competition is welcome as it may give African countries alternatives and spur them into their fourth industrial revolution - if the new technological age will still be the fourth industrial revolution. [GGY](#)

WIRED AFRICA NOW ZOOMS INTO CHINA AND US

By Gideon Chitanga

Government-instituted regulations restricting physical contact and movement to combat the Covid-19 pandemic dramatically spurred the use of digital diplomacy in Africa, using Information and Communication Technologies (ICTS). This gave digital technologies a prominent role in the conduct, management, and administration of foreign relations.

While there is a growing focus on African conceptual-cum-empirical studies and commentary on digital diplomacy, this article draws attention to the challenges of digital diplomacy in Africa, US, and China relations. Despite its potential, the practice of digital diplomacy in Africa faces serious challenges.

The shift towards digital diplomacy has provided huge opportunities for low-cost, equal diplomatic tripartite relations between the US, China, and Africa, often skewed in favour of the two major powers. However, serious ideological, political, geopolitical, and infrastructural resource challenges impinge on the democratisation and transformative impact of digital diplomacy.

Where financially constrained African governments once invested massive resources travelling abroad to engage in face-to-face meetings, ICTS-driven diplomatic engagement, management, and policy analysis - conducted through Zoom, Google meets, Skype, Twitter, Facebook, LinkedIn, and YouTube, using voice- and video-streaming services connected to the internet - have become the norm.



Photo: Chip SomODEVILLA / Getty Images via AFP

ABOVE: Participants in the presidential summit of the Mandela Washington Fellowship for Young African Leaders use a variety of mobile devices, including tablets and phones.



Photo: Simon Mwangi / AP

From multilateral conferences organised by the African Union (AU), Southern African Development Community (SADC), the Economic Community of West African States (ECOWAS), the Intergovernmental Authority on Development (IGAD), and national government meetings, African diplomats and heads of state are using digital tools in their daily work, conferences, negotiations, representation, communication and policy analysis. Gone are the days when African governments ran without computers and internet connectivity.

The revolutionary domestic socioeconomic impact of ICTs is evident in various sectors, for example, access to and the use of cellphones, and their transformative impact on remittances, cash transfers and payments. The use of ICTs lies in promoting free speech, human rights, and the free flow of information while inspiring entrepreneurial socioeconomic innovation and citizen empowerment.

Despite these gains, Africa lags behind China and the US in terms of laying down structures, institutions, and policies

ABOVE: Pupils from Light House Grace academy in Kawangware, Nairobi, use the Kio tablet created by a local technology company, BRCK Education, during a class session in October 2015.

governing the use and management of digital diplomacy. Given the fortuitous leveraging of digital diplomacy under stringent Covid-19 regulations, many African diplomats instinctively embraced ICTs. But the transition to digital diplomacy proceeded ambiguously, in a policy vacuum, lacking strategic state-driven planning. Until 2019, African governments did not prioritise the internet and digital diplomacy within their foreign policy strategies and policies.

In contrast, both China and the US are well advanced in terms of institutionalised public and digital diplomacy, with dedicated research institutions, structures, and policies.

The US is one of the first countries to realise the importance of the internet for promoting national interests abroad, as the US State Department became one of the world's leading users of digital diplomacy in the pursuit, coordination, and communication of American priorities to internal and external actors. The US Agency for International

Development (USAID) has adopted a digital strategy to promote the responsible use of digital technology in development and humanitarian work by local innovators, the private sector, and civil society. US officials are also pushing for an IT and digital policy guided by a grand, overall strategy to maintain global tech leadership, limiting China's global dominance in the IT and digital space.

China's digital diplomacy takes a highly centralised approach, using state agencies, diplomatic missions, Confucius Institutes (CI), state

and non-state funded companies, and media. A network of diplomats around the world has become the main means of getting its messages out through social media. Chinese diplomatic voices make themselves heard online through the offices of the consul generals and a new generation of digitally savvy diplomats.

Africa generally faces huge shortages of infrastructure, and secure, faster internet connectivity minimising the efficacy of digital diplomacy. The comparatively low private and public investment in assets such as fibre and broadband facilities, computers, and cellphones

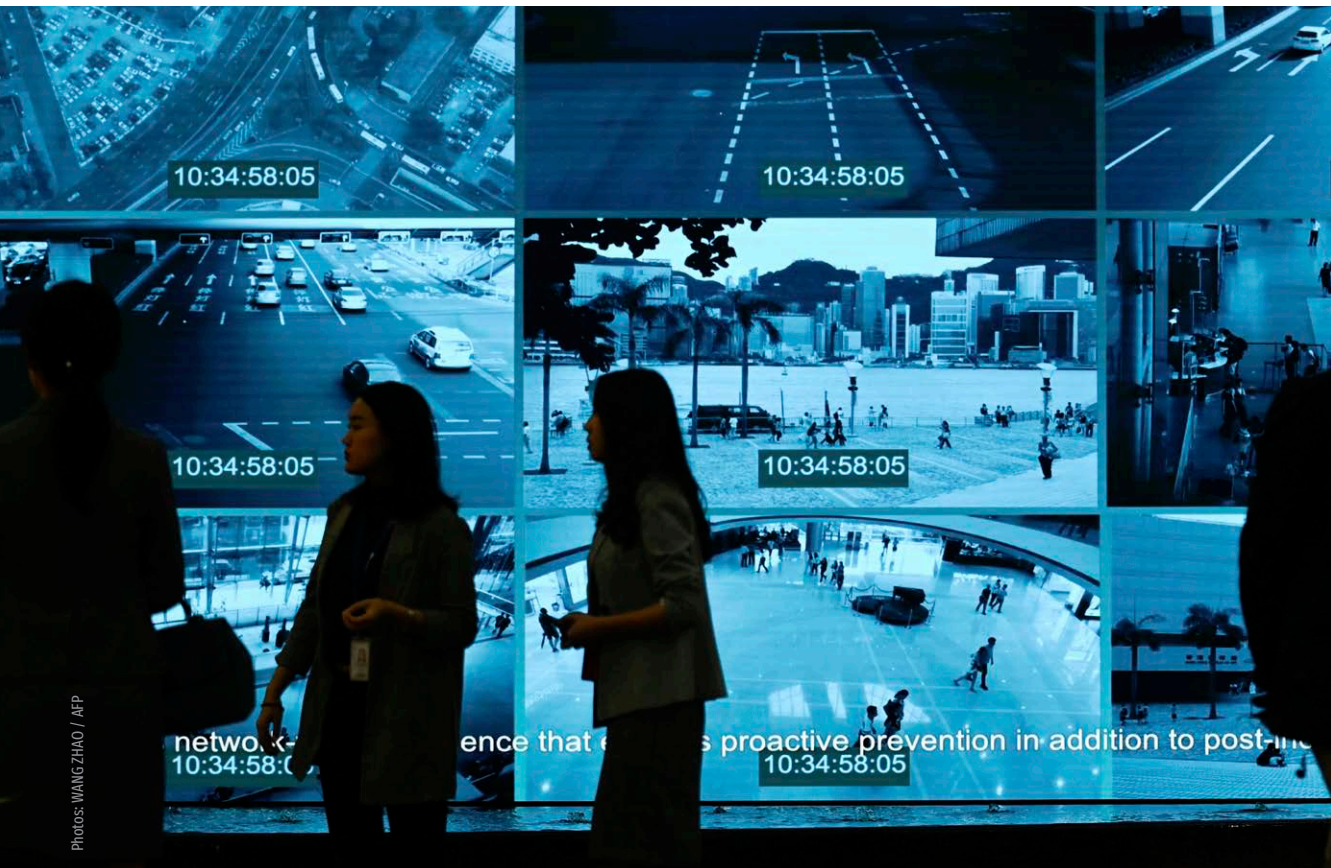
imported at higher cost from China and the US diminishes the reliable use of digital diplomacy.

The public sector has struggled to inject bigger investment into ICTs, to sponsor policies and regulatory frameworks, which stimulate growth and provide effective use of digital diplomacy. The Infrastructure Consortium for Africa (ICA) suggests that as of 2015, about 75% of the population and 15% of households in

The Infrastructure Consortium for Africa (ICA), suggests that as of 2015 about 75% of the population and 15% of households in Africa had no access to the internet.

Africa had no access to the internet. Despite the significant growth in ICTs, mobile telephony use in the continent stands at 60%. Although investment in ICTs continues to grow, it is unevenly spread and poor rural African populations, living in areas that offer poor incentives for ICTs investment, are marginalised from digital society.

But the main challenge to positive digital diplomacy between Africa, China, and the US is the polarised political rivalry between the US and China. Geopolitical rivalry, characterised by exclusionary



PHOTOS: WANG ZHAO / AFP

competition over natural resources, has diminished collective mutual benefits with Africa. Digital diplomacy has, therefore, been reduced to a mere means to an end, as Africa is subjected to often-opposed geopolitical interests.

The continent lies at the intersection of a digital dependence either on the US or China, making African countries highly vulnerable to the disruption of data flows, cyber attacks undermining the protection of strategic public and private

information resources from illegal eavesdropping, and digital sovereignty.

The importation of ICTs into Africa as foreign direct investment (FDI), multilateral or bilateral aid has escalated competition between China and the US and their tech companies for control of infrastructure such as internet service providers, search engines, operating systems, undersea cables, satellites, the development of apps, content platforms, mobile handsets, data networks, mobile money, web browsers and content platforms in Africa, and subsequently, digital diplomatic leverage over the continent.

Where China has used state-driven collaboration with its domestic mega tech companies to dominate the African digital markets, the US relies on private-sector driven flagship tech companies to accelerate and scale critical digital infrastructure and capabilities, intensifying geopolitical tech rivalry in Africa.

Huawei components supply 70% of 4G, and is the leading supplier of 5G technologies across Africa.



ABOVE: Huawei employees working on the mobile phone production line at a Huawei facility during a media tour in Dongguan, China's Guangdong province in March 2019. The Chinese telecom giant gave foreign media a peek into its state-of-the-art facilities as the normally secretive company stepped up a counter-offensive against US warnings that it could be used by Beijing for espionage and sabotage.

Chinese heavyweight companies such as Huawei Technologies, Zhongxing Telecom Ltd (ZTE), China Telecom, and Alcatel Shanghai Bell (ASB) are at the forefront of providing cheaper ICTs, digital infrastructure, and smartphones driving digital diplomacy in Africa. At the same time, US tech giants such as Facebook, Amazon, and Google are pushing their way into Africa's digital market.

In 2019, Google launched a subsea cable called Equiano, linking South Africa, Portugal, and Nigeria, asserting the company's dominance as a search engine of choice in Africa.

China, meanwhile, has donated ICT infrastructure to the AU and member countries, including for strategic public institutions, raising concerns about cyber-security frameworks to protect strategic resources and information. In 2018, the UK newspaper *The Guardian* reported that Beijing and the AU dismissed allegations that Beijing had bugged the regional bloc's headquarters.

According to the ICA, Chinese investment in ICTS infrastructure has exceeded \$1 billion since 2015. In 2022, German publication *Deutsche Welle* reported that Huawei –sanctioned in the US, and largely shunned in the Global North due to privacy and security issues – is the largest telecommunications equipment manufacturer in the world, and dominates connectivity in African ICT markets. Huawei components supply 70% of 4G, and is the leading supplier of 5G technologies across Africa, providing cheaper, more affordable, and easy-to-use technologies, with very attractive terms to operators.

Africa lags in domestic access to internet and ICT production, ownership, and deployment of digital technologies as digital diplomacy. While this diminishes continental gains, technological and digital diplomatic capabilities are bolstering the US and China's geopolitical strategic influence on the continent. [GGV](#)

MADE IN
CHINA

AFRICA NEEDS THE BEST OF BOTH

By Amukelani Charmaine Matsilele

Digital technologies are increasingly playing a significant role for governments, non-governmental organisations and other civil society institutions that rely on mobile communications. For Africa, in particular, the greater reliance on mobile technologies is evidenced by Brookings Institution findings that show that mobile technologies contribute \$144 billion towards the continent's economy.

Over the past decade, US and Chinese digital competition has played out on the continent. Both the US and China are struggling to take control of shaping Africa's technology infrastructure and digital future as this is key to how the next generation of Africans will consume, do business and interact with the world.

The country that succeeds in achieving technological superiority will enable the offsetting

of capabilities each side looks for in the military sphere. The information Africans consume could vary depending on the digital infrastructure that supports these interactions. This makes the conflict between China and US big tech of interest to the continent; Africa is at the centre of this technological war and is living through a change of thinking that concerns how technology is financed, developed, and deployed. Africa, therefore, cannot afford to take a position of neutrality as the competition between China and the US becomes increasingly difficult to avoid.

Both the US and China have recognised that Africa is a young and fast-growing market in which to unleash the developmental benefits of a second internet revolution, supplying the backbone for innovative e-health, edutech, fintech, and regtech (regulatory technology) companies to grow.



The digital competition between the US and China in Africa is concentrated in the following areas: telecommunication companies and internet service providers, mobile handsets, data networks, operating systems and apps, mobile money, content platforms and web browsers, undersea cables, and satellites. According to the Atlantic Council, Chinese tech company Huawei has built more than 50% of Africa's 3G network and 70% of its 4G network. This is also apparent from the China Global Investment Tracker, which has recorded a total of \$7.19 billion investment on the African continent between 2005 and 2020. According to the Digital Sprinters Report, US tech company Google invested \$1 billion in Africa's internet economy over five years.

US mobile company Africell has more than two million users in Angola. Apple is considered the supplier of high-quality handsets, while Chinese company, Transsion, is considered the leading supplier of handsets in Africa. The US and China

ABOVE: An artists' impression of the Beijing skyline that depicts the smart city network layout of the capital.

have different, competing operating systems; the former uses Google, while the latter uses Harmony as its operating system for Huawei.

US and China tech competition also extends to web browsers. For instance, the US has Google maps, while China plans to introduce Baidu maps, which will be operated through the BeiDou satellite navigation system. Content platforms are also seeing mixed ownership; TikTok is owned by a Chinese company while Twitter is US owned.

For China, Africa has proven attractive for its tech infrastructure, while for the US the continent is seen as an opportunity to work with flagship US tech companies to accelerate and scale critical digital infrastructure to the benefit of American and Africans alike. While US tech investment

comes through American companies, Chinese tech investment in Africa is often intertwined with government backing and support. This has resulted in policy choices on how to implement the digital agenda in Africa, shaped by the geopolitical tech war between China and the US. The governance models and value systems of the US and China differ, putting the two countries at odds over democracy and human rights in Africa, among other issues.

Digital sovereignty is focused on who builds the infrastructure and the hardware, and who controls the data in artificial intelligence and the internet of things. Africans, therefore, must make choices that consider their interests by striking a balance between the affordability of technology, quality standards and the internet governance rules that protect their citizens and economy.

To date, the narrative around US and China tech competition has focused on the role of these two governments and less on the agency of Africans and the role that African consumers play in determining the future of US and Chinese technology on the continent. There are indications that the Biden administration will support aspects of the Trump policy towards China, and what this means for Africa is that the continent is likely to continue to feel the heat between these two.

Moving forward, it is important to seek cooperation that advances African interests. The main argument is that the US and China need to advance technology in Africa through value-based foreign policy, aligning themselves with the continent's arc towards innovation, technology, and youth-driven global culture.

One of the approaches Africa should take is to adopt a sectoral approach under the banner of the American initiative Prosper Africa, which connects US and African businesses with new buyers, suppliers, and investment opportunities, focusing on technology and digital infrastructure, in the hope of mobilising resources and improving technological infrastructure. The trade and investments programmes at USAID can also be considered as platforms for making policies that speak directly to Africa. The continent also needs to renegotiate with the US to have direct-to-consumer satellite solutions that will support American tech firms already investing in African markets.

Now that internet data is becoming central to economic and industrial development, it is likely that the race to influence standards and internet rules will become central to international diplomacy. The continent, therefore, needs a concrete digital strategy that includes the African voice in the debate about US and China digital competition. In 2019

The governance models and value systems of the US and China differ, putting the two countries at odds over democracy and human rights in Africa, among other issues.

Google announced the subsea cable, Equiano, running from South Africa to Portugal, via Nigeria; the biggest lesson Africa can learn from this is to be included in co-owning the project.

China's Africa policy is committed to a well-developed and centred Forum on China Africa Cooperation (FOCAC). China has promoted the Digital Silk Road initiative (DSR), under the BRI, as a solution to Africa's data needs. The DSR initiative encompasses the technology dimensions of the Belt and Road Initiative (BRI) such as cross-border transactions, smart cities, telemedicine, internet finance, artificial intelligence, quantum computing



Photo: Getty Images

and blockchain. China’s proposed global data security initiative is meant to set the rules at a multilateral level and should be looked at from the point of view where the policy accounts for Africa’s conditions and aspirations. The US has interests in the African continent that engender competition with China. This was demonstrated by the recent launch of America’s Development Finance Corporation and various China-focused legislative initiatives in the US Congress.

Africa’s position should include a strong representation from the Africa Continental Free Trade Area (AfCFTA), as it is driven by emerging technologies. The AfCFTA should be included as a flagship initiative of the Sustainable Development Goals (SDGs) and the Science, Technology, and Innovation Strategy for Africa 2024 (STISA-2024) by improving infrastructural development and well-aligned policy frameworks to enhance Africa’s industrialisation aspirations. Moreover, Africa

ABOVE: Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network.

has an opportunity to use the US Congress’s 2000 African Growth and Opportunity Act in engaging with both America and China to promote economic growth through good governance and free markets for technology.

In conclusion, it is clear that the geo-technological challenges between the US and China have a major impact on the African continent in terms of the economy, national security, and value-based systems. The continent is in urgent need of a robust set of technology and cyber security policies to empower African youth with the necessary skills to advance technology – and to engage in multilateral digital trade initiatives that cater for Africa’s needs. [GGV](#)

Chinese expands its **DIGITAL** **SOVEREIGNTY** to Africa

By Mandira Bagwandeem

Three decades ago, China (like many developing countries of the time) barely had any tech industry to speak of, remaining largely dependent on foreign companies to supply its technological and communications infrastructure needs. Since then, however, the Chinese state and society have both made great leaps in becoming a major technology innovator, supplier, and operator.

The country has ambitious plans to dominate technology manufacturing by 2025 and to take

the lead in standard-setting by 2035. In its efforts to achieve these lofty goals, and under the banner of the Digital Silk Road (DSR), the Chinese government is rallying both private and state-owned companies to develop digital infrastructure at home, export more sophisticated tech products abroad, and augment the compatibility between Chinese and foreign networks.

Officially unveiled in 2015, very little is known about the DSR, a component of China's Belt and Road Initiative (BRI) – a massive transcontinental infrastructure connectivity project. In typical Chinese Communist Party (CCP)-esque fashion, the Chinese government has not provided any clear mandate or outline concerning the makeup of the DSR, making it challenging for outsiders to determine its configuration and purpose. However, in trying to make sense of the initiative, it can be somewhat understood as an effort by the state to expand its digital footprint globally and to further its ascendance as a technological power.

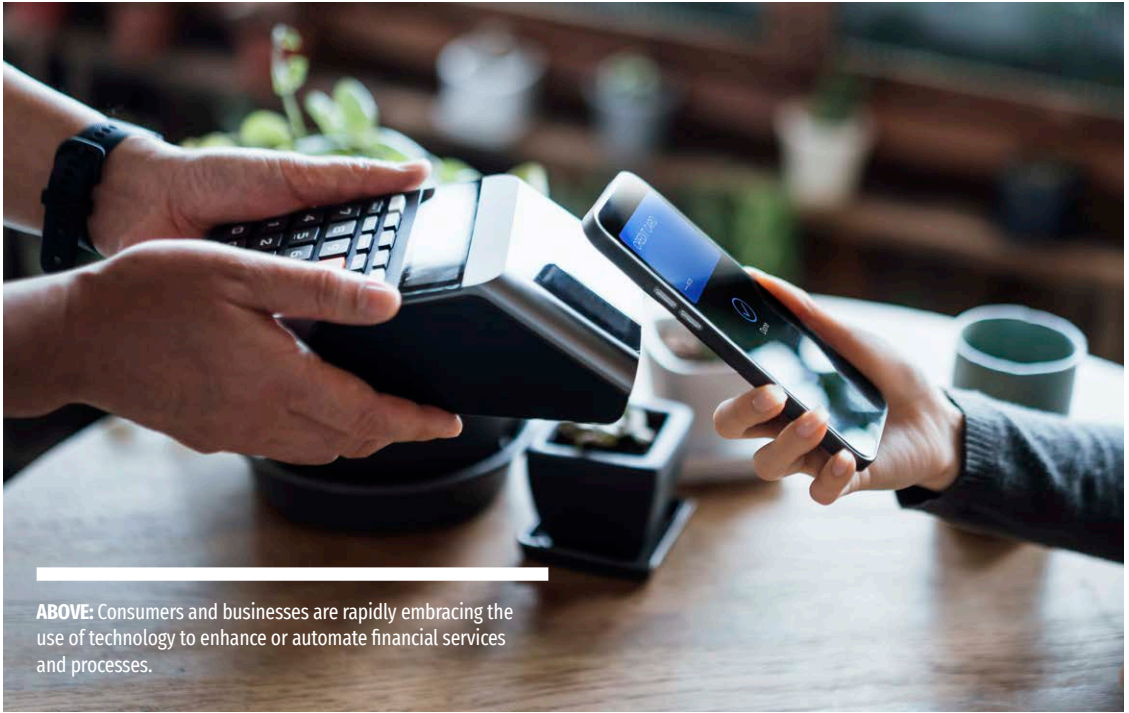
Through the DSR, China seemingly seeks to

refine its technological skills and offerings, thereby positioning Chinese technology at the centre of global networks, prioritising next-generation technology and next-generation markets. The primary purpose of the DSR is to ensure that leading Chinese technology companies – such as Alibaba, Tencent, Baidu, and Huawei – and state-owned telecom firms – such as China Mobile, China Telecom, and China Unicom – can take advantage of the political and financial support that Beijing is investing in the DSR project to create market access for its tech giants, enabling their ability to compete in emerging markets with foreign (but mostly the US) technology firms.

Although many Chinese digital infrastructure and ICT projects around the world predate the DSR, most are now being branded as part of the initiative so that these companies can reap political and financial support from Beijing. Due to the opaque nature of Chinese foreign investment, it is difficult to determine the exact scale of China's tech investments. Nonetheless, research undertaken by the International Institute of Strategic Studies (IISS) estimates that China is engaged in 80 telecommunication projects globally and, according to the RWR Advisory Group, has invested approximately \$79 billion in DSR projects worldwide.

As China's digital presence expands globally – and especially against the backdrop of tech tensions between China and the West – the Chinese have become increasingly concerned with promoting digital sovereignty, commonly referred to as cyber sovereignty. Digital sovereignty can be simply defined as the capacity of a state to regulate and have control over technology in use and includes data, hardware, and software. Digital sovereignty has become a growing concern for countries wishing to reduce their dependence on a handful of established tech power brokers – mainly the US, which houses most of the world's data and tech companies with outsized power and sway.

To exert absolute digital sovereignty, countries need to have their own data centres to ensure that all government and personal data is stored within the country and that this digital data is subject to national laws.



ABOVE: Consumers and businesses are rapidly embracing the use of technology to enhance or automate financial services and processes.

Photo: Getty Images

Essentially, the digital climate is changing. According to Ciaran Martin, of the Blavatnik School of Government, the geopolitics of technology has for years been orchestrated by a “technological ecosystem built by the US’s private sector.” China’s technological ambitions are not “to compete on the American-built, free, Open Internet” system which is informed by liberal democratic values, but to construct an entirely new, more state-controlled – some would say authoritarian – model that is forcing the bifurcation of the internet where market participants and countries will have to choose between the US and China.

In response to China’s expanding cyberspace capabilities (and to curb its digital influence and power), the US State Department launched the “Clean Network” initiative in August 2020; it aims to remove Chinese digital companies from the global supply chain by recruiting countries and companies to adhere to a set of shared principles in technology standards and practices. Mike Pompeo, the US’s former Secretary of State, announced in November 2020 that 53 countries had signed on to the initiative.

In a counter-response, the Chinese Foreign Ministry introduced the “Global Data Security Initiative (GDSI)” in September 2020, which aims to enhance global cybersecurity by focusing on data storage and digital commerce security. As pointed out by DigiChina, a research centre based at Stanford University, the GDSI seeks to dispel the US’s portrayal of Chinese technology as “malign and untrustworthy” and a threat that needs to be excluded from the global internet infrastructure. To date, quite a few countries have expressed support for this initiative, including Russia, Tanzania, Pakistan, Ecuador, the Arab League nations, and ASEAN countries.

To exert absolute digital sovereignty, countries need to have their own data centres to ensure that all government and personal data is stored within the country, and that this digital data is subject to national laws. To this end, China has undertaken mega data centre projects to boost its own data storage capacity. Beyond mainland China, Chinese tech companies (such as Huawei and Tencent) are building data centres for countries mostly located in the Global South.

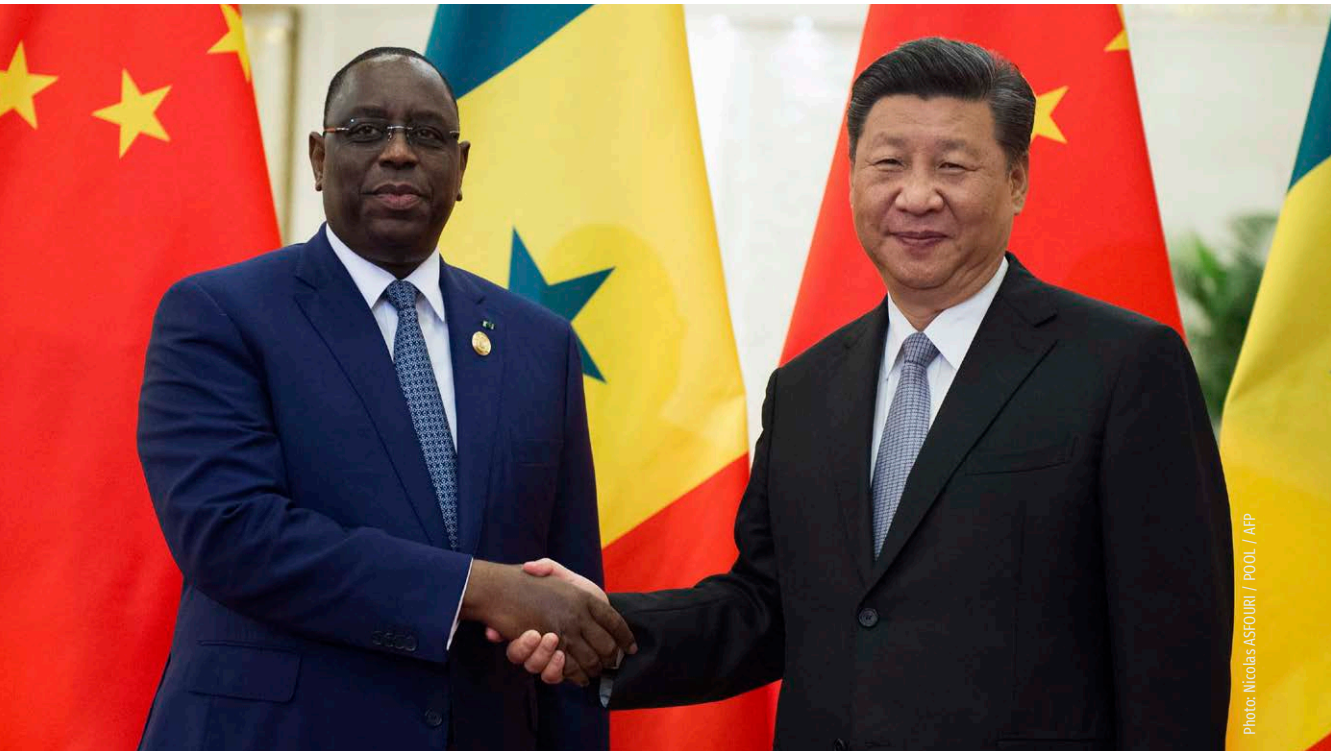


Photo: Nicolas ASTOURE / POOL / AFP

China's interest in Africa's ICT sector dates to the late 1990s, when both its private and state-owned companies tentatively began entering African markets. China's involvement in developing Africa's ICT infrastructure coincided with the continent's telecom revolution of the 1990s when African countries were liberalising their telecommunications sectors and looking to upgrade their infrastructure.

In Africa, Chinese firms such as Huawei, ZTE, Cloudwalk, and China Telecom have been key in building and upgrading digital infrastructure. Data compiled by the Australian Strategic Policy Institute shows that China has "built 266 technology projects in Africa, ranging from 4G and 5G telecommunications networks to data centres, smart city projects that modernise urban centres, and education programmes."

As a result, "Made in China" technology is now the backbone of network infrastructure across many African countries. Without much competition from foreign (and especially western) companies, the Chinese have been able to entrench themselves

ABOVE: Senegal's President Macky Sall shakes hands with China's President Xi Jinping before their bilateral meeting at the Great Hall of the People in Beijing in September 2018.

in Africa's ICT sector, effectively positioning themselves as the providers of next-generation technology for the region. Through the DSR, Chinese firms operating in Africa's tech sector can expand and enjoy the fruits of scaling up their operations.

The political and financial support that Beijing provides for DSR projects "enables Chinese enterprises to not only meet... the digital infrastructure needs of African countries, but also their financing needs, enabling Chinese firms to pursue their corporate interests, African countries to meet their needs for infrastructure and associated financing, and the Chinese state to achieve its strategic goal of strengthening its engagement in the region while advancing its [rise as a technological power]."

Only a few big US multinational technology companies – Google, Microsoft, Amazon, and

Facebook, have a presence in Africa. Western IT infrastructure companies cannot compete with their Chinese counterparts without political and financial backing from their neoliberal-economic-adhering governments. Without government support, western companies are reluctant to enter African markets. This is because many western companies do not have the appetite to invest in African countries with challenging and risky business environments.

With African countries desperate for digital infrastructure to transform their economies, their governments continue to work with Chinese technology firms. With other foreign companies reluctant to take on big projects needed to develop critical ICT infrastructure, African countries are left with little choice but to partner with the Chinese. The availability of financing from Chinese banks and the competitive pricing of high-quality products offered by Chinese companies makes it advantageous for African governments to partner with Chinese technology companies because “for Africa, Chinese-built internet is better than no internet at all”.

To keep pace with Africa’s social and economic transformation – which is exerting considerable pressure on existing digital infrastructure – it is estimated that 1,000 MW capacity and 700 new data centres will be needed. Chinese companies, such as Huawei, have already begun to deliver multimillion-dollar data centres and cloud services in several African countries, including Zimbabwe, Zambia, Togo, Tanzania, Mozambique, Mali, and Madagascar. Huawei’s national data centre project in Senegal, commissioned in June 2021, is particularly special given that it is explicitly linked to the aim of “guaranteeing Senegalese digital sovereignty”. Senegal is the first African country to partner with China in moving all its government data and digital platforms from foreign servers to a new \$79 million national data centre financed by the China Export-Import Bank.

In light of tech tensions between China and the

West, many analysts and leaders – and especially those in western policy circles – are concerned about how involved China has become in Africa’s tech sector. Because many Chinese ICT companies have ties to their government, it is feared that Chinese-built digital infrastructure projects, such as data centres, can be leveraged by China to spy on national governments and covertly gather intelligence.

Given reports that China had spied on servers at the African Union for more than five years, gaining access to confidential information, concerns over the country’s dominance in Africa’s ICT sector are not unfounded. However, the revelations of Edward Snowden on the US National Security Agency, which accrued vast amounts of information via ICTs, shows that the US is just as capable of using ICT infrastructure for covert purposes.

So, with the Chinese and Americans equally capable of using their technology for secret intelligence gathering, which country should African countries partner with to build their ICT infrastructure? Unlike the US, which subscribes to a “free and open internet” policy, the risk with the Chinese is that they could influence African countries (especially those with more dubious regimes) to adopt a digital authoritarian model of internet governance (as in China). This form of digital governance is the antithesis of the digital democracy principles that the US promotes.

Looking at the bigger picture, we need to think beyond the tech competition between China and the US in Africa and more about how the technology (provided by either of the two) will be used and governed. Regardless of which foreign companies are involved in developing the continent’s digital infrastructure, it is up to African policymakers and governments to safeguard their digital sovereignty and develop their own digital governance models. There is also a need to be both pragmatic and cautious, monitoring the amount of foreign involvement in the continent’s technology sectors, irrespective of whether it is western or Chinese. 

'GOOD' SURVEILLANCE IN AFRICA

– Chinese or US technology?

By Gregory Gondwe

The name “China” in Africa’s ICT and digital tech narratives in today’s language often evokes a counter-intelligence nightmare for both African governments and the United States (US). The accusation emerges from the unclear, or at least suspicious, intentions that continue to puzzle most researchers. For some critiques, this is because most scholarship focuses on hyperbolic tones, which tend to emphasise “neo-colonialism and debt-traps” or, less often, “win-win cooperation and investment”. Despite being a major player in similar accusations, the US is almost non-existent in the conversations.

Not long ago, any technology from China in Africa was tantamount to “counterfeit or fake”. In fact, the name China was synonymous with words like ‘gong’a in Zambia, ‘feki or bandia’ in Tanzania and Kenya, *Aba ike!* products

in Nigeria, *enye papa* in Ghana. All of these words referred to the fact that Chinese products were fake and not durable. However, in recent years, Chinese technologies have proved reliable, with African governments being among the top customers for surveillance tools, such as those in smart cities.

Essentially, smart cities are modern urban areas equipped with high technological capabilities to collect data, for purposes of public safety and efficient service delivery. Smart cities in Africa today include the Modderfontein New City in Johannesburg, South Africa, Kigali Innovation City in Rwanda, and Konza City in Kenya. Though there are traces of the West operating such technology, China, and particularly Zendai Groups of China are evident developers and owners of such cities and digital surveillance tools. Such endeavours have attracted scrutiny, with



ABOVE: African countries have shown strong interest in the procurement and use of data surveillance technology from China.

Photo: Hector Retamal / AFP

many questioning what they mean for domestic human rights and for governments spying on their own people. Some have even extended the criticism to perceiving China as a trojan horse for spying on African governments.

Should Africa be worried? A quick response would be “YES”, because there is a distinction between what Africans worry about in relation to the rest of the world. Generally, arguments about surveillance are western-centred in the sense that most people from the West perceive and value the idea of surveillance in terms of personal freedom. In most western scholarship, the idea of surveillance falls under the category of “being left alone” by governments. For example, people might choose to retreat into the woods, far away from technology, to be left alone – and so comes the quest for “the right to be left alone”.

caused by reckless drivers or dangerous police pursuits. Consider the case of OJ Simpson and his pursuit by police after his former wife was murdered. What if the manufacturer of his vehicle had access to the vehicle? Although there were multiple variables at play, the basic idea of having control of that vehicle would have shaped the outcome – at least some individuals argued.

In Africa, however, surveillance is connotatively different. The reality is that our democracies are still young. Evidence from different countries suggests that unlike in most western countries, the idea of surveillance is accompanied by political intimidation as opposed to knowing what an individual is doing on their phone. It is true that things like mobile number registration have helped reduce cases of cyber bullying, but when ranked, that problem is almost at the bottom of the issues

Among many other countries, Ethiopia stands out as a textbook example of a country that has misused digital technologies to intimidate critics.

When critically analysed, most cyber-security policies in the US, though intended to surveil, are primarily designed to protect the higher good. For example, mobile phones in the US have built-in batteries for the purpose of tracking the device even when someone has switched off their phone. The idea sounds crude, but you will appreciate the policy when you analyse how many people go missing in the US and how that policy has helped find missing individuals.

In a recent symposium on driverless cars, a heated debate arose regarding whether manufacturers should be allowed to have remote control access to the vehicles. For many, that was unacceptable, while others felt that it would be an opportunity to forestall unnecessary accidents

that most governments consider important. Several incumbent governments in Africa have used surveillance tools and digital media monitoring to intimidate their opponents under the accusation of spreading fake news.

Among many other countries, Ethiopia stands out as a textbook example of a country that has misused digital technologies to intimidate critics. Studies from the Toronto-based research centre Citizen Lab show that since 2016, the Ethiopian government has continued to foster malware campaign strategies that are aimed at surveilling and intimidating Ethiopian activists and political opponents located abroad.

Essentially, critics operating outside their countries are perceived as independent and free to

speak out against their repressive regimes. However, Chinese surveillance tools, particularly from “smart cities”, continue to aid repressive regimes with their intimidation techniques, thus silencing even those outside their geographical locations. The Oromia Media Network of Ethiopia, whose headquarters in Minneapolis, Minnesota, in the US, has been a victim of such repressive intimidation by their government at home.

On the other hand, there is the case of Kenya, which has been accused of “an invasion of privacy”. This followed after some government-controlled web Apps mistakenly exposed 38 million records, including data indicating people’s Covid-19 vaccination status, on the internet. Some commentators have excused this as having a “limited impact” compared to cases such as Ethiopia. According to newspaper reports, the Kenyan government used biometric technologies and CCTV in public spaces for facial recognition, smartphones for call data, tapping, and geotagging; and contact tracing apps to help identify those who came into contact with infected people. But for some critics, this was not an isolated event in light of an omnibus bill signed by President Uhuru Kenyatta giving power to the Cabinet Secretary of the Interior and Coordination of National Security to access data from any technological gadget and introduce hefty penalties for anyone who refused to comply.

Pragmatically, this is justified by the argument that this is done for national security reasons. As a result, this brings us back to the question of when is it right to forfeit our privacy for the greater good? What is the greater good anyway, primarily when governments have used that narrative to intimidate their critics? Or do Africans really care about surveillance, or is it a western concept? What then is good surveillance for Africa amid competing US and Chinese digital technologies?

Generally, ICT and other digital technologies are neither good nor evil – but instruments of development. How Africa chooses to use them is

what shapes the argument. The biggest question that raises more suspicion, especially for China, is, why there is an abrupt demand for such surveillance gadgets in Africa, and why does China seem to be more than interested in easily distributing them to the continent for apparently political purposes?

Africa, as a whole, is still leap-frogging when it comes to technological developments. Therefore, the jump to surveillance seems like an odd and suspicious move in the sense that there are several unattended projects that also need to be addressed. For example, many African countries are still grappling with electricity connectivity, which is a foundation for technology – let alone unstable mobile network connections or merely having an old computer that can barely connect to the internet.

Further, the idea of surveillance is foreign to many in Africa, except a few individuals who are exposed to western concepts. Ask a common Kenyan, for example, about the government’s breach of the Covid-19 data or that the government can trace their phones – they barely care. This means that certain steps should be achieved before African governments, China, and the US give precedence to the procurement and use of data surveillance technology.

First, precedence should be given to educating the locals on the value of privacy as a human right; second, China and the US, given their keen interest in Africa, must help close technological gaps by embarking on the electrification of the entire continent. Technology as we know it operates on electronic energy, therefore, seeking technological advancements with no electricity is an endless endeavour that will gradually widen gaps between urban and rural areas. Third, computer and technological literacy should be prioritised; and fourth, all schools should have access to computers and digital technologies. Otherwise, the same suspicions and narratives that surveillance gadgets are tools for intimidation will continue to characterise the discourse. [GGV](#)



5G

Technologies, a higher education for Africa

By Abdul-Gafar Tobi Oshodi

On 2 November 2020, Huawei, the Chinese telecommunications multinational, reported on its website that the company, in conjunction with Robotics & Artificial Intelligence Nigeria (Rain) technology hub and Wits University had “jointly launched South Africa’s and Africa’s first 5G laboratory, which gives students access to a live 5G environment to build knowledge of the revolutionary technology’s applications for the local market”.

Beyond the novelty of the technology, the Huawei announcement underscores at least two important interrelated points. First, the company’s decision not only demonstrates a willingness to invest in 5G technology on the continent but also emphasises the continued relevance of the African university in its strategy. Second, and a central focus of this piece, is that the announcement further demonstrates the point that the African university is an emerging arena for US-China technology competition.

However, how are universities in Africa linked – and how are they responding – to unfolding US-China competition? Understanding the linkages and responses are deeply rooted within two broad interconnected settings: one global, the other African.

At the global level, the 2020 Huawei announcement happened amid western governments’ hostilities toward Chinese telecommunications companies – fuelled by the suspicions of built-in backdoors in Chinese technologies and the fear that Chinese technologies would overtake the

West. In reaction, the US and its allies introduced measures to check the expansion of Chinese technologies. From the Massachusetts Institute of Technology (MIT) to Oxford, political hostilities soon filtered into universities in the West, with many suspending current or future collaborations with Chinese telecommunications companies like Huawei and ZTE. It was in this period that Australia introduced the University Foreign Interference Taskforce (August 2019) believed to target China and Chinese companies in the country.

Within Africa, the 2020 Huawei announcement happened within a context of reliance on both US and Chinese technologies. For instance, just as the American technology company Cisco collaborates with African universities to offer certification courses, Huawei provides similar training. Similarly, while most Africans use smartphones with American, Google Android operating systems, Chinese manufacturers like Transsion (makers of brands like Tecno, Itel, and Infinix) lead the African smartphone market with almost 50%. Combined, Chinese brands control more than 60% of the market.

Even as the Android operating system remains dominant, reports about Huawei's plans to expand its Harmony operating system are no longer news. Meanwhile, major telecommunications service providers and governments in Africa use Chinese technologies, accentuating the implications in Africa of the

so-called Splinternet, meaning a situation where the internet is fragmented and controlled by the US and China.

Generally, African countries have a cordial relationship with both the US and China. This offers companies and technologies from both countries an opportunity to invest and engage in the continent. Like African states, most African universities have not taken sides in the US-China technological competition. Yet, they are linked to this competition because they exist within global and African settings. This linkage, which can be referred to as the non-alignment linkage, is an outcome of the non-alignment of African governments in the competition.

The second is the functionality link. Simply put, as centres of teaching, research, and learning, African universities cannot afford to be left behind in the ongoing struggle for determination and the development of future technologies. Indeed, disciplines such as computer science, telecommunications, mass communications, and related courses in African universities have existed for years, predating the current US-China competition, which essentially began to sharpen up in 2017-2021 under the Donald Trump presidency. Thus, the current ecology of courses in (telecommunications, computer, financial, digital, etc.) technologies offers African universities an incentive to host or partner with American and/or Chinese companies operating in the sector.



ABOVE: People walk past Chinese company ZTE's stand at the Mobile World Congress (MWC) in Barcelona, Spain, in February 2019.



Photo: LUIS GENE / AFP

Unfolding US-China competition will impact both states and non-state actors in Africa in diverse ways. Non-state actors include universities, media, private companies, civil society, and individuals. While these non-state actors continue to engage the competition in complex and dynamic ways, often demonstrating their agency, the African university occupies an important role that borders on its core duties of research and development, teaching, and building the next generation of political and industry leaders.

Yet the presence of US-China technologies on Africa's university campuses varies. For instance,

Huawei's presence on campuses ranges from a small ICT lab at the University for Development Studies in Tamale, Ghana, to the proposed multimillion-dollar Innovation and Experience Centre at the University of Lagos in Nigeria. As with the Cisco Networking Academy and Microsoft's Africa Development Center-sponsored Game of Learners competition, the Huawei Authorized Information and Network Academy (HAINA) is partnering with many universities in Africa.

Preliminary studies suggest that Huawei's thrust and strategies to catch up with American technology companies continue to have a presence in African

universities. One effective way the company is doing so is, according to its website, “working with local governments and universities to send students overseas to provide work experience with the world’s best ICT equipment”. Though global, many private and public universities in Africa are beneficiaries. Though some research suggests that there are more certified Cisco users, Huawei’s partnership with universities could close the gap.

So, what does the future of US-China competition hold for African universities? The universities are not unaware of the potential revenue and publicity accruable to them as hosts, catalysts, and users of both US and Chinese technologies. Offering technology-related courses could increase the student population, which generates additional internal revenue. Many universities have also set up “consultancies” and directorates or committees to boost this type of revenue drive; a drive that is particularly urgent given the negative economic impacts of Covid-19 on African states that fund public universities.

Nonetheless, there can be challenges. US-China digital competition is still an emerging phenomenon and still in its early stages, so the long-term implications of this reality are unclear. Yet several challenges are already discernible. First, universities – especially the public ones – are influenced by the broader relationships between the African host country, and US and China. Thus, in a situation where a country is under US sanctions, it could become difficult for American

technology companies to invest or collaborate with local universities. Similarly, the One China policy (the China position that there is only one Chinese government, and that Taiwan is an inalienable part of a united country) might be a condition for

Chinese companies to collaborate with local universities.

Second, the Splinternet, if it happens, could have a disruptive impact on the African universities that invest in the partnership, and third, that US and Chinese technologies dominate in Africa reinforces a historical dependence. By adapting to both technologies instead of leading a home-

grown technology that can independently navigate the potentially disruptive impact of dependence on the Splinternet, African universities underscore and reproduce the continent’s historical dependence on the US – and now China. Thus, one question is to what extent local content features in the so-called technology partnership with US and China.


In conclusion, universities are increasingly recognised as elemental in the unfolding US-China competition. Universities are not only users; their agency can have far-reaching implications, not only for technological competition in Africa but how Africans experience it. Nonetheless, while there are significant media reports about how universities are responding to emerging US-China competition, academic research on the subject is at a nascent level. Whether this will change in the coming months or years, time will tell. One almost certain thing is that the African university is now an arena for US-China technological competition. [GGV](#)

The universities are not unaware of the potential revenue and publicity accruable to them as hosts, catalysts, and users of both US and Chinese technologies.

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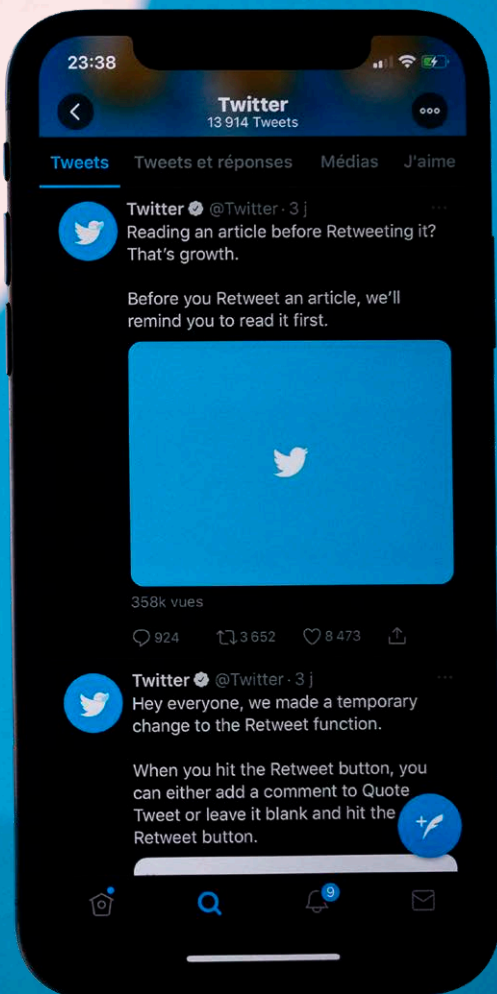
by Victor Ndula





A digital diplomacy shootout in Zimbabwe

By Admire Mare



Digital diplomacy has emerged as one of the most topical issues in the post-Covid-19 pandemic period, especially in Africa, where diplomats and government officials have resorted to the use of the internet, social media, and other ancillary digital technologies to circumvent travel and gathering restrictions associated with non-pharmaceutical interventions aimed at curbing the spread of the deadly virus.

The concept of digital diplomacy refers to the broad use of technology, particularly the internet and other information and communication technologies (ICTs)-based innovations, in the conduct of diplomacy. Unlike analogue diplomacy, where diplomats and government officials relied on in-person meetings, verbal and non-verbal cues, signing of physical documents and the exchange of handshakes, modern day diplomacy is increasingly being digitised.

Taking advantage of the technical and social affordances of digital technologies, some diplomats and government officials in Africa are slowly embracing platforms such as Zoom, Google Meet and Microsoft Teams for bilateral decision-making gatherings, diplomatic meetings, and conferences. Furthermore, social media platforms are increasingly being appropriated by embassies, foreign affairs ministries and other government officials to influence public opinion, manufacturing consent and dissent and enhancing a country's image. Twitter has become a key tool used by diplomatic missions as well as governments across the world to communicate with local citizens and foreign nationals.



Photo: Jeeesai NIKIZANA / AFP

Few countries in Africa serves as an interesting research laboratory to examine how the embassies of two global superpowers – US and China – engage in digital public diplomacy on Twitter than Zimbabwe. The country has been going through cycles of protracted socio-political and economic crises ever since the turn of the century when it embarked on the controversial Fast Track Land Reform Programme (FTLRP) in 2000.

This unexpected move to redistribute white-owned land without compensation led to disruptive diplomatic tensions between Zimbabwe and the United Kingdom (UK), the Europe Union (EU), and the United States (US). The EU reacted by imposing targeted sanctions on Harare. The US followed suit by promulgating the Zimbabwe Democracy and Recovery Act (ZDERA) in 2001.

Although there are conflicting views on the actual import of the Act from both the Zimbabwean and American governments, the Act represented targeted sanctions on the Zimbabwe African National Union-Patriotic Front (ZANU-PF) and its political and economic allies. From the perspective of the Americans, the Act was meant to support the people of Zimbabwe in their struggle to effect peaceful, democratic

ABOVE: Demonstrators hold placards as they chant slogans and wave Zimbabwe's national flags during a rally to denounce US and EU economic sanctions against Zimbabwe at the National Stadium, in the capital, Harare, in 2019.

change, achieve broad-based and equitable economic growth, and restore the rule of law. ZANU-PF saw this as part of a foreign-sponsored regime change agenda aimed at propping up the opposition fronted by the Movement of Democratic Change (MDC).

With this diplomatic tiff between Harare and the West, dormant relations with China, which dated back to the liberation struggle, were swiftly rekindled. The Zimbabwean government came up with the Look East Policy (LEP) in search of partnerships with rising economies from the East such as China, Russia, Iran, Indonesia, Singapore, and Ukraine. Because LEP was an oral secret public policy, there is a general belief that it was designed to benefit the political elite in Harare who had a vested interest in a close economic and political relationship with China and other countries from the East at the cost of the interests of the people of Zimbabwe.

The pronouncement of this policy meant that the US and China were now pitted against each

other regarding their foreign policy thrusts toward Zimbabwe. With China in a cozy relationship with the ZANU-PF government, the West was open in its embrace and support of the MDC. Resultantly, some kind of “cold war” between the US and Chinese sides has characterised the country’s bilateral relations over the past two decades.

Noteworthy to highlight with the military coup that ousted Robert Mugabe from the political cockpit after 37 years of rule, the Second Republic under the leadership of Emmerson Mnangagwa adopted a new foreign policy thrust of affirmation, engagement, and re-engagement. This multi-pronged foreign policy approach was different from Mugabe’s policy which over-emphasised principles such as emancipation, self-determination, support for liberation movements, safeguarding the country’s sovereignty, and the protection of its prestige and image, promotion of the principle of equality among nations, and belief in non-

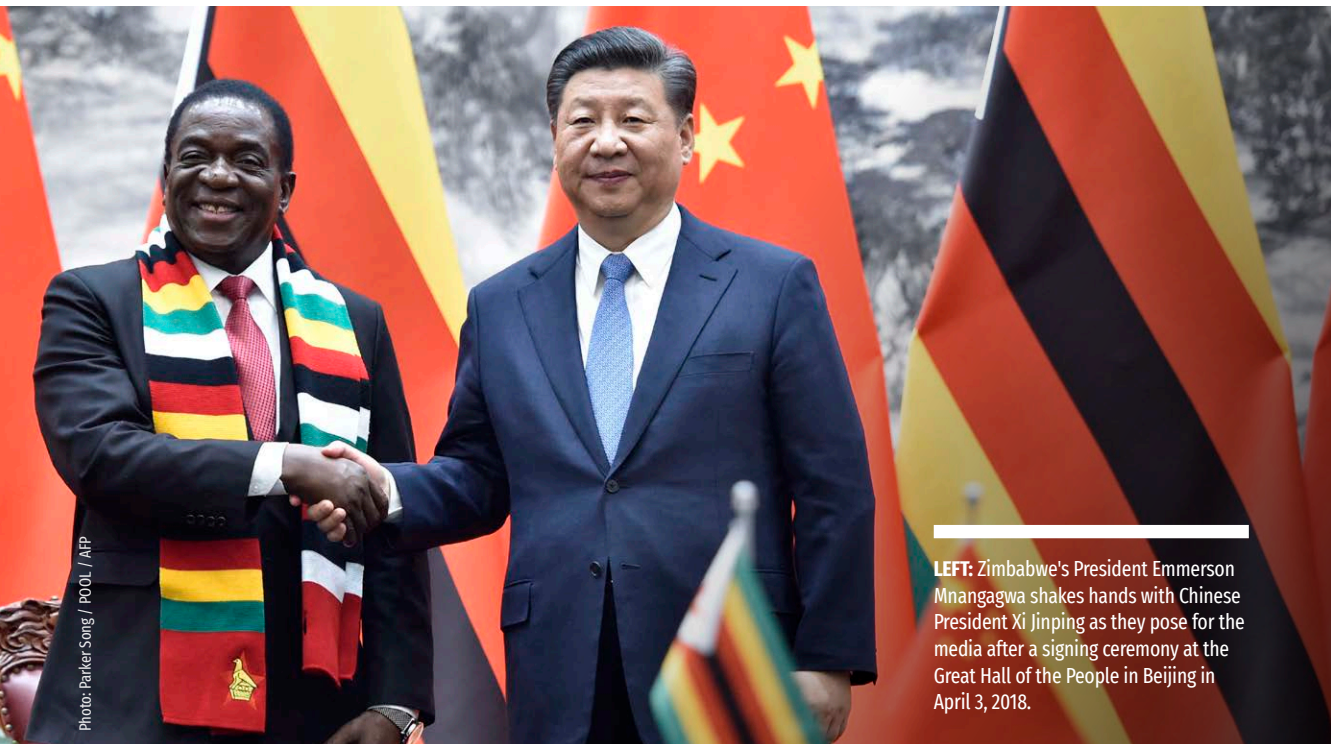
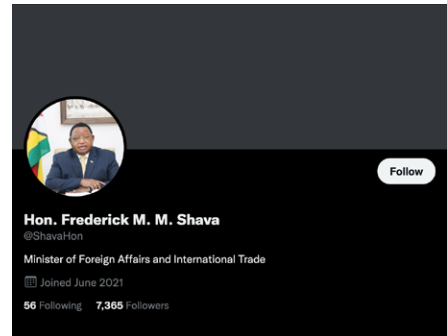


Photo: Parker Song / POOL / AFP

LEFT: Zimbabwe's President Emmerson Mnangagwa shakes hands with Chinese President Xi Jinping as they pose for the media after a signing ceremony at the Great Hall of the People in Beijing in April 3, 2018.



discrimination. Mnangagwa’s foreign policy approach sought to restore Zimbabwe to the family of nations after decades of splendid isolation. On paper, it represented a total break from the antagonistic relationship forged by Mugabe’s regime for two decades.

It is within this context that I embarked on a study to understand how the Chinese and American embassies deploy Twitter to advance their foreign policy goals in Zimbabwe. Using the case study of the US (which has a diplomatic standoff with Zimbabwe) and China (which is often described by Zimbabwean authorities as an “all-weather friend”), this study sought to investigate how their embassies used Twitter to promote their foreign policy goals. The study looked at the posting behaviours, thematic issues, and responses of these embassies to controversial topics related to their foreign policies.

The choice of these two embassies was motivated by the fact that both countries have different bilateral relationships with Zimbabwe. The key research questions were: How are the Chinese and US Embassies in Zimbabwe using

Twitter to promote their foreign policy goals? What are the main thematic issues that both embassies are concerned about in the host country? How do the two embassies engage with local citizens and foreign nationals on Twitter?

Deploying virtual ethnography and qualitative content analysis, I monitored the Twitter handles of the Chinese (@ChineseZimbabwe) and American (@USEmbZim) embassies. I also followed and monitored the activities of the ambassadors (former US ambassador Brian Nichols (@WHAAsstSecty) and Guo Shaochun (@China_Amb_Zim) of both countries to Zimbabwe, government officials (Emmerson Mnangagwa, president of Zimbabwe (@edmnangagwa), Frederick M.M. Shava (@ShavaHon), Minister of Foreign Affairs and International Trade, Prof Mthuli Ncube, Minister of Finance (@MthuliNcube), the Ministry of Foreign Affairs and International Trade (@MoFA_ZW), and some of the most prominent staff working for these embassies. The American Twitter handle clearly articulates the country’s foreign policy thrust in Zimbabwe, which is to promote active

engagement and partnership with Zimbabweans to build a better future. The Chinese Twitter handle has no description of the embassy's foreign policy remit in Zimbabwe.

Both embassies have a significant following on Twitter. The Chinese embassy in Zimbabwe (@ChineseZimbabwe) has approximately 13,800. It only follows 140 accounts, mostly Nick Mangwana (@nickmangwana), Emmerson Mnangagwa (President of Zimbabwe), the Russian embassy in Zimbabwe, the Chinese ambassador to Zimbabwe, *Sunday Mail* (state-owned weekly newspaper), and *Global Times* (Chinese state-owned media), amongst others. It was opened in September 2018, a few months after Mnangagwa sanitised his military-assisted coup via controversial elections held in July 2018. The China and the UK are generally believed to have played a "behind the scenes" role in the successful execution of the November 2017 coup.

The US embassy Twitter handle was created in July 2009, soon after the formation of the government of National Unity (GNU) and one month before the launch of 3G technology in Zimbabwe. It has 358,300 followers and follows about 1,412 accounts.

Both embassies run very vibrant pages characterised by regular posts, retweets and hash tagging. It was observed that both accounts rarely respond to comments by their followers. Both used their accounts to broadcast their foreign policy messages.

Observations on both handles revealed that administrators occasionally used their platforms to attack, respond and outcompete it each other.

The Chinese Twitter handle is very vocal about denouncing the so-called "illegal sanctions" the West imposed on Harare in the early 2000s. In one of the tweets, the handle described the US as the "United States of American Sanctions". Occasionally, the US embassy responds to this narrative by highlighting that targeted sanctions were imposed after the breakdown of the rule of law and human rights violations.

Observations on both handles revealed that administrators occasionally used their platforms to attack, respond and outcompete it each other. The Chinese embassy used videos and testimonials to showcase the success of their non-interference economic diplomacy approach in Zimbabwe. In these videos and testimonials, Chinese companies are presented as job creators, law-abiding corporate citizens, and socially responsive actors.





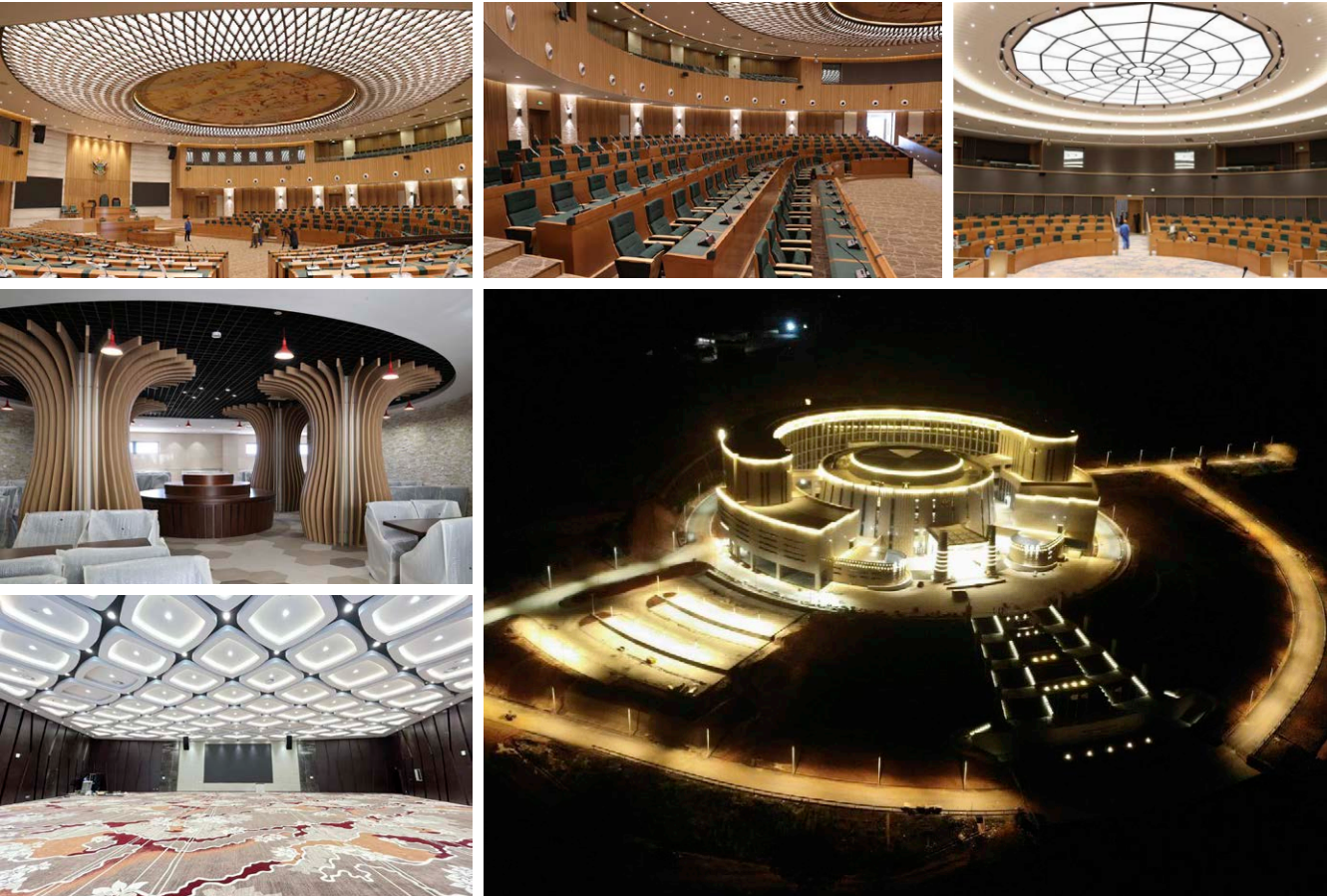
Photos: @newparl, Procto and @DeptCommsZV

In some cases, Zimbabwean citizens are filmed defending the economic activities of Chinese firms. This is in contrast to a popular derogative term for Chinese goods that are often referred as ‘*Zhing Zhong*’ (meaning cheaper and low quality goods). Chinese companies have also been arraigned before the courts for violation of the Labour Act.

The Chinese embassy used their handle to attack the US’s unipolar approach to international relations, exceptionalism and bullying tactics. For their part, the US embassy has used their handle to influence public opinion in Zimbabwe by profiling and promoting social and development activities spearheaded by the United States Development Agency (USAID). The Twitter account sought to show the country’s unwavering relations with the Zimbabwean people since 1980, highlighting areas where the US helped during droughts, famine and economic crises.

In line with the Zimbabwe Democracy and Economic Recovery Act of 2001 (ZDERA), the US embassy tweets revealed that they use trusted non-governmental organisations (NGOs) to support Zimbabweans. This suggests that the US government avoids directly supporting the government by channelling aid through non-state actors. The Chinese embassy also boasted of investing large sums of money into infrastructural developments, manufacturing, mining and agriculture (especially tobacco and cotton). They regularly tweet about the construction of the new parliament building in Mount Hampden, described in the media as a “Chinese gift” to the Zimbabwean people.

The study also noted that the US embassy only retweeted American-related stories published by the State Department, US Africa Media Hub, and USAID. For their part, the Chinese embassy



ABOVE: The new Chinese-funded, six-storey, parliament building in Mount Hampden, 25 km northwest of the capital, Harare.

commented and retweeted on stories focusing on investments by their governments and companies operating in Zimbabwe. They also retweeted stories about Chinese investments covered by state-owned media and tweeted by verified Zimbabwean government officials' Twitter handles.

The Chinese handle regularly accused the US of being the chief purveyor of disinformation and propaganda. In one of the tweets, it accused America of genocide and war crimes. It also accused the US of orchestrating smear campaigns targeted at development-supporting Chinese investments. The handle also accused America of attempting to sow seeds of disunity and mistrust between the Chinese and the people of Zimbabwe.

The Chinese handle was also articulate about the issue of vaccine diplomacy, highlighting the number of doses donated to Zimbabwe. Consistent with studies conducted elsewhere,

this study found that both countries were using Twitter predominantly as one-way information dissemination as opposed to engaging the audience in a two-way flow of communication. Although the US embassy recently introduced Twitter Spaces as interactive spaces to discuss pertinent issues, these are still moderated by gatekeepers.

Overall, from this exploratory study it is clear that both embassies are using their handles to influence public opinion in Zimbabwe. They are also using the platform for enhancing their countries' image in the eyes of Zimbabwean citizens. They are also using Twitter as a battleground to push their political and commercial diplomatic interests. [GGV](#)



foto: Getty Images

NO HUAWEI, NO CRY

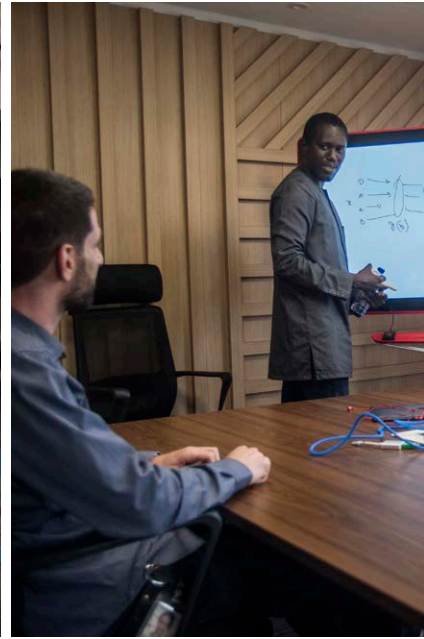
By Cliff Mboya

In May 2021 US president Joe Biden signed an executive order declaring a “national emergency” and blocked American companies from doing business with foreign tech companies on the grounds that they posed risks to national security.

The US claims that Chinese technology multinational Huawei has links with the military and the ruling communist party of China (CCP), and could potentially use its devices to spy on the US and its allies. The US imposed the “Huawei ban” and subsequently embarked on a campaign to dissuade countries from using

the company's networks and equipment. The ban was meant to inflict economic and political costs on Huawei. However, the ban poses huge economic and political costs for Huawei's partners in Africa, making it almost impossible to follow the US lead.

Exactly a year since the ban, US Deputy Secretary of State Wendy Sherman, while on a visit to Angola, warned African countries against using Huawei equipment citing espionage and sovereignty concerns. “We believe that when countries choose Huawei, they are potentially giving up their sovereignty. They are potentially



turning over their data to another country,” she said. But the fact that most African countries have not heeded the US’s anti-Huawei campaigns points to a vivid picture of the company’s firm hold in Africa.

In Kenya, Huawei has become indispensable due to its huge investments in advanced communications in the country. The country forms a key strategic element of China’s Digital Silk Road, the communications arm of the Belt and Road initiative that has its African node in Kenya. As recently as March this year, the Huawei-backed 15,000 km undersea cable, PEACE (Pakistan and East Africa Connecting Europe), arrived at Kenya’s port city of Mombasa. Kenya has positioned itself as the West African regional and continental digital hub, thanks in part to Huawei’s massive investments in the country. In fact, digital connectivity is emerging as the next frontier in Kenya-China relations, in line with the latest Forum on China Africa Cooperation (FOCAC) commitments.

The tech giant is at the heart of Kenya’s

technological drive and is already implementing national digital economy projects such as a national cloud data centre, a smart ICT network, a safe city project, smart traffic solutions as well as a cloud centre for government enterprise service under the Konza Technocity banner – a vision 2030 project that seeks to establish a “technology-intensive and high-tech industries in ICT, biotechnology and e-commerce”.

These projects are supported by extensive training for young Kenyans under the “Huawei seeds for the future” programme that provides ICT skills as well as partnerships with universities and academics to prepare

Kenyans for the digital economy. The company also advises Kenya on its information and communication master plan.

Huawei is also the main driver of Kenya’s 5G revolution, having been contracted as the major supplier by the largest telecommunications company, Safaricom, to roll out its 5G network, along with Nokia. Kenya’s revolutionary M-Pesa

In Kenya, Huawei’s footprint has expanded across both the public and private sectors.



PHOTOS: CRISTINA ALDEHUELA / AFP

mobile payment service, also run by Safaricom, runs on the Huawei network and with its support.

In Kenya, Huawei’s footprint has expanded across both the public and private sectors. The country’s major banks rely on its networks for their digital banking that is transforming the financial sector. The company has also diversified its product portfolio to include data archiving, backup and recovery - supporting a huge market of enterprises in the country.

Kenya's latest country report (2018) indicates that Huawei has laid more than 4,000 km of fibre-optic cables in the country, with 3,500 mobile base stations, accounting for 62% of those that serve millions of customers across the country. Huawei phones, meanwhile, enjoy a relatively large market share in the country; their relatively low cost and high-performance handsets account for about 7.44% of market share just behind other popular Chinese brands such as Techno, Infinix, and Oppo.

It is unsurprising, therefore, that there has been plenty of concern in Kenya that severing ties with Huawei would be detrimental to the economy and the country’s digital race. A major newspaper in the country captured the mood when it published an opinion piece headlined “Kenya

ABOVE: The Google Artificial Intelligence (AI) office in Accra is the first AI centre established in Africa by Google.

shouldn’t get sucked into Huawei security scare”, describing the ban as “absurd”. It went on to urge the Communication Authority of Kenya (CAK) to “ascertain that local telecom companies do not get sucked into this fake security scare. Safaricom, Airtel, and Telkom Kenya should be allowed to buy whatever equipment they think is best for 5G in Kenya.”

Concerns that Safaricom’s parent company, Vodacom in the United Kingdom, would compel Safaricom to take similar action were heightened after the UK succumbed to US pressure to renege on its decision to allow Huawei to provide 35% of its new 5G network, opting instead to remove all Huawei equipment from this network by 2027.

However, despite stating that Safaricom would follow guidelines from its main shareholders in Britain and South Africa, acting CEO Michael Joseph was quick to affirm, “We will use Huawei in 5G... What will we do in terms of the American statements about not using Huawei? We don’t have that situation in Africa.” So, while there has been

speculation that the US ban might have influenced Safaricom’s decision to suspend its Huawei-led 5G roll out in Kenya, despite successful trials in favour of upgrading its 2G and 3G customers to 4G, there is no evidence to that effect.

Kenyan ICT Minister Joe Mucheru initially appeared non-committal on the matter when in 2020, he said: “It’s up to telecom operator Safaricom, not the government, to decide whether or not to use Huawei equipment.” But pressed on policy, he affirmed the government’s position by stating that “our policies are not dictated by US policies in technology. I have not seen any letter or document about stopping the project, and we cannot stop even if we are asked to do so. We are an independent country.” This suggests that the country is unlikely to heed US calls to stop using Huawei equipment and technology.

Huawei was also quick to reassure the country that the ban would not affect its business in Kenya. Customers were concerned that they would lose Google services like the play store, YouTube and the Android operating system on their handsets, but these concerns were quickly allayed by Huawei’s announcement of its own operating system, codenamed “Hongmeng” as an alternative to Google services, as well as the Huawei App gallery to download Apps from.

However, the loss of those Apps do appear to be a challenge for Huawei in Kenya. It has been reported that Facebook, now Meta, has already banned pre-installed apps on Huawei phones. These include the Facebook, WhatsApp and Instagram,





all of which are popular with the majority of young Kenyans, who are its biggest market in the country.

According to Ken Abuya, a technology expert with a bias in enterprise and mobile technology, “Huawei has not been doing well on the smartphone front following the US ban from 2019,” he said. Data from Statcounter Global Stats reveal that Huawei’s mobile vendor market share did drop marginally in Kenya, from 7.9% to 5.75% between April 2021 and April 2022, confirming that the ban had indeed

slowed down its handset sales in the country.

There is no doubt that Huawei is heavily invested in Kenya and that severing ties with the company would inflict a heavy economic cost on the country and derail plans to grow its digital economy and the drive to digital connectivity in general.

Huawei has taken a lead role in accelerating Kenya’s ICT development by facilitating access to high-

quality, yet affordable digital infrastructure and services. These incentives far outweigh America’s security concerns, which are often exaggerated and come with political inclinations. The validity of US concerns in the context of global power competition and tech wars with China remain murky, leaving countries like Kenya with no option but to leverage on Huawei’s potential to deliver its digital goals as the only rational choice. [GGY](#)



ABOVE AND RIGHT: Huawei, Infinix, Oppo and Techno are popular low cost, high-performance mobile devices available in Kenya.

LEFT: Huawei designed the HarmonyOS in response to the Chinese telecommunications company losing access to Google mobile services after the United States prohibited American-based companies from doing business with Huawei without first obtaining a licence from the US government.





SOUTH AFRICA'S 4IR STRATEGY

By Bhaso Ndzendze

South Africa's Presidential Commission on the Fourth Industrial Revolution (PC4IR) admittedly took form in a global environment in which other major countries had already established leadership roles and represented a disproportionate amount of the design and manufacturing of advanced and emerging technologies.

At the same time, South Africa has deep commercial ties to the Peoples' Republic of China (PRC) and the US, in addition to longstanding and growing cultural tethers with the two countries respectively. The announcement, convening, work and report of the PC4IR all coincided with the US-China trade war (2018-2020), which some scholars argued to be a new Cold War.

As such, the final form of its strategy, represented by the 2020 Report of the Presidential Commission on the 4IR, is a potentially informative contemporary artefact meriting study for ascertaining the direct and/or indirect influences of China and the US in 4IR industrial planning in South Africa.

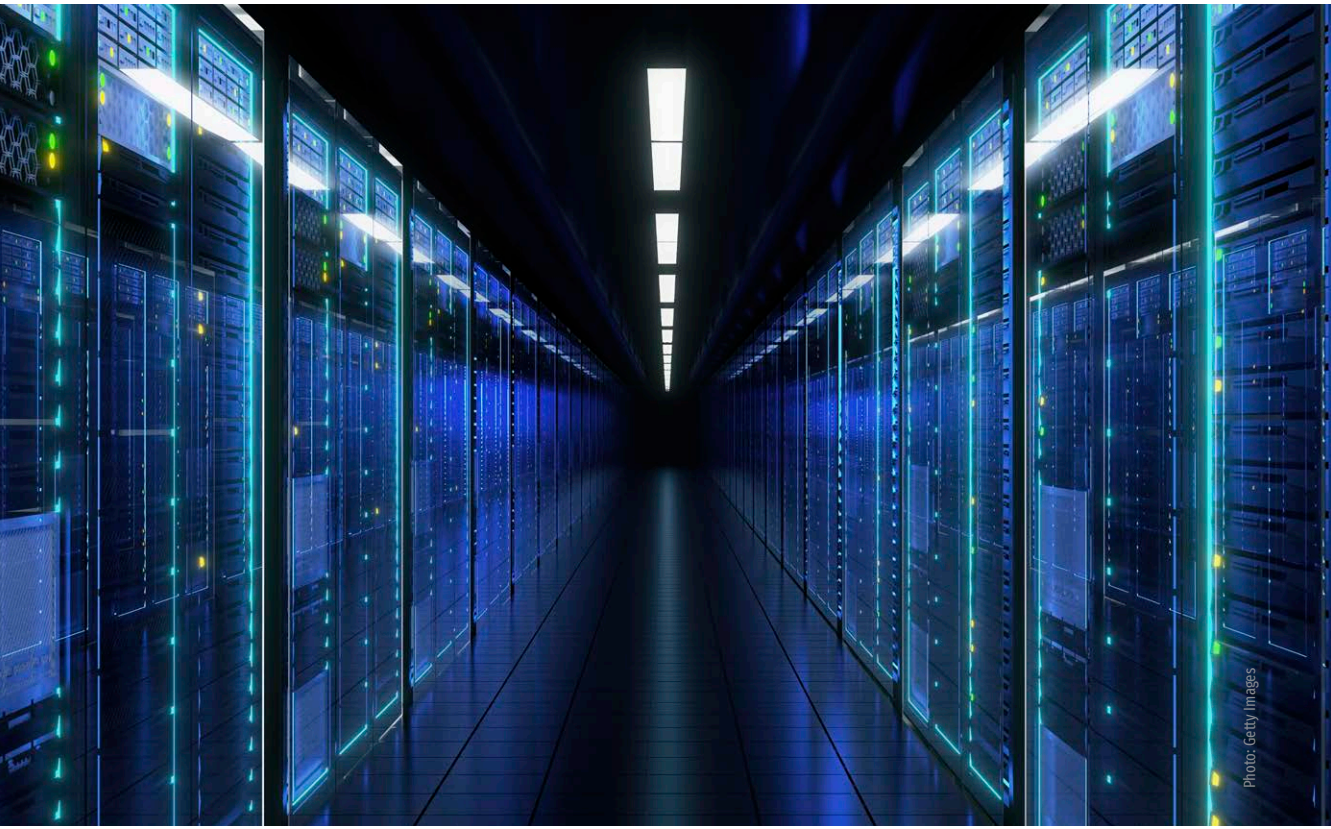


Photo: Getty Images

This article presents an analysis of South Africa's 4IR strategy in comparative perspective against China and the US. The article draws from a thematic analysis of the PC4IR's report. It determines whether South Africa's 4IR strategy has drawn inspiration from the 4IR strategies of the two world powers (and, if so, how much compared to the other), or whether its strategy may be said to be exclusively made in South Africa.

The findings show that South Africa does not excessively lean one way or the other. Also, the trade war has had no discernible influence. South Africa mentions both countries in a good light in its strategy. The findings show, also, that the differences between China and the US may be exaggerated to some degree. Indeed, there are overlaps across all three countries. All three, for example, seem to identify a role for government involvement and even direction in enhancing their positions in the 4IR. All three reports are unequivocal in this regard. Moreover, South Africa

ABOVE: The US and China continue to invest in data centres across the globe to process and store the big data generated by the 4IR.

has approached the 4IR from a developmental perspective, whereas China and the US are more competitive, efficiency and security minded. Thus, they are time-specific (both setting 2025 as a crucible point) whereas South Africa is open-ended.

It is worth considering, briefly, the role of both countries in South Africa technology production. A viable proxy for this is the total share of either country in South Africa's computer chip imports. Chips are crucial because they are components of all technology products, and it is telling where South Africa has historically and currently sources this crucial ingredient.

The share of each country in South Africa's total imports of each product is represented in Figure 1 and Figure 2. Overall, China's share began lower than that of the US in 2001 but has since supplanted

it on both products. For example, China’s range of 23% (2018) and 33.8% (2019) outcompetes the US’s 4.2% (2018) and 7% (2019).

The extent to which global developments informed South Africa’s 4IR report is indicated in the document itself. It states that: “[We] understand that in the context of a globalised society, competition and wellbeing are not only about our own standards, but also relative to the quality of economic and social life enjoyed in other nations. To this end, in determining the socioeconomic impact of the 4IR path that South Africa embarks upon, we will also keep a firm eye on the strategies that other countries are undertaking to ascertain gaps and opportunities, both locally and internationally. The concept of 4IR is new. Therefore, only a handful of countries have developed strategies in response to this unfolding current revolution in anticipation of a different future reality”.

These trends and admissions, therefore, beg the question of where SA’s strategy stands between these two technology superpowers. The question is asked along four key sub-questions. Firstly, has there been any direct role for entities from either country in the development of the South African strategy? Secondly, what actors (government or private sector) are emphasised in each strategy, and how does South Africa position itself? Thirdly, what approach does each have towards ethics and data? Finally, what key technologies are emphasised,

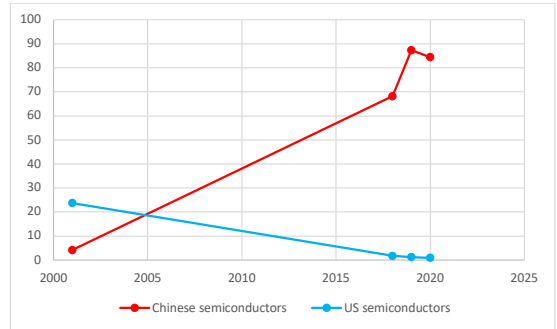


Figure 2. South African imports of semiconductors from China and the US, 2018-2020 (2001 benchmark)

and what can that tell us about the nature of each country’s strategy and South Africa’s own posture? Each of these is important and merits analysis. Considered together, they allow for comprehensive analysis of all the important components of national strategy as understood through the literature.

The findings to each of the four questions are presented. Firstly, the report itself seems to have been written with a greater role for the US in mind, the three US organisations (Amazon, Cisco and the American Chamber of Commerce in South Africa) that were consulted, whereas that was not the case with Chinese entities (Presidential Commission on the Fourth Industrial Revolution, 2020: xviii-xix). Thus, South Africa, despite its rhetorical scepticism towards Donald Trump’s US and open embrace of Huawei, still made overtures to US players in formulating its strategy. Notably, also, trade with the US grew in this period. This would seem to demonstrate that South Africa has been impervious to the so-called new Cold War.

Secondly, in all three countries, it is clear that the government is seen as central in the inception and execution of 4IR technologies, in addition to coordinating efforts that are going on in the private sector. This fact perhaps represents a contemporary equivalent of how governments respond to the development of frontier industries in a geopolitically charged environment. A key difference, however, is to be noted in the motivation for governmental

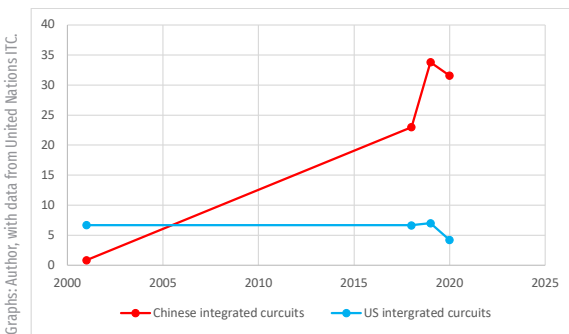


Figure 1. South African imports of integrated circuits from China and the US, 2018-2020 (2001 benchmark)

Graphics: Author, with data from United Nations ITC



involvement. For both China and the US, the major driver behind governmental leadership in 4IR development is competition with one another, whereas for South Africa it is socioeconomic development (i.e., employment creation and reduction of inequality).

There is also a clearer focus on education that is shared by both the US and South Africa. For its part, the US strategy states that the US Congress should enact a “National Defense Education Act II”, whose task would be to diminish current inadequacies of the US education system and thus make way for more AI-related K-12 education and job re-skilling. Similarly, the first of the eight recommendations made in the case of South Africa is “investing in human capital”, noting that “the 4th IR gives us a rallying point of urgency and an opportunity to redesign, streamline and align the education system through a coordinated, robust, multi-stakeholder process” (Presidential Commission on the Fourth Industrial Revolution, 2020: 50).

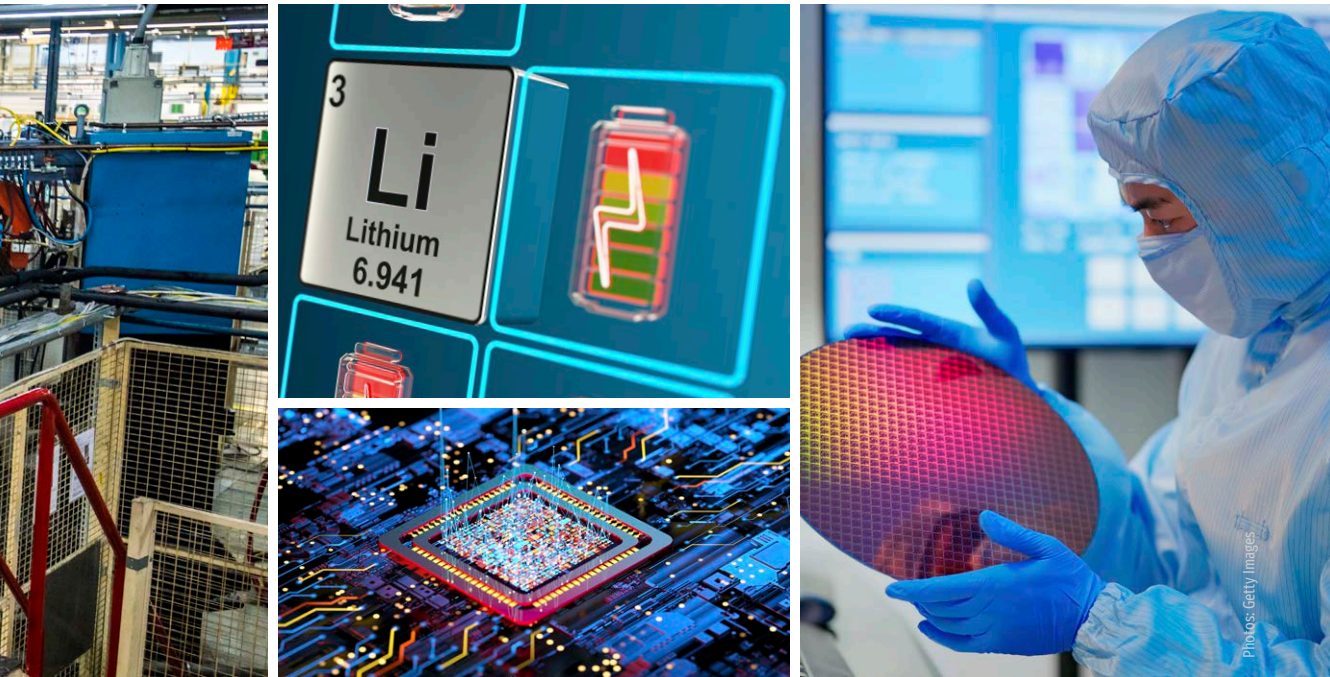
Thirdly, South Africa’s strategy document recognises the centrality of ethics in the development of emerging technologies: “A focus on regulation, ethics, and cultural aspects of the

ABOVE: The 4th industrial revolution is speculated to change the world we live in through advances in microelectronics, biotechnology, quantum computing, robotics and energy storage technology, to name a few.

internet is key, not only to create an enabling policy environment to support private and non-governmental organisations, as well as the state, but to ensure ethical and transparent use of these new technologies” (Presidential Commission on the Fourth Industrial Revolution, 2020: 28). The document, however, also encourages the exploitation of data, albeit within the constraints of the law. This is more akin to the US than China.

Moreover, as with China and the US, the South African strategy recognises the importance of protecting national data through bolstering cybersecurity capabilities: “Data sovereignty will save money for the government and create new income streams when the data is mined,” the report states.

The US led with development and the announcement of ethics; China intends to do so only after it has developed its AI to an optimum level (earmarked for 2025-2030, according to its strategy).



On the other hand, China has seemed more open to multilateral (global) ethical and regulatory standards-setting than doing so unilaterally: “China will actively participate in global governance of AI, strengthen the study of major international common problems such as robot alienation and safety supervision, deepen international cooperation on AI laws and regulations, international rules and so on, and jointly cope with global challenges.”

Finally, in the case of South Africa the following are identified: AI, blockchain, and additive manufacturing. On the other hand,

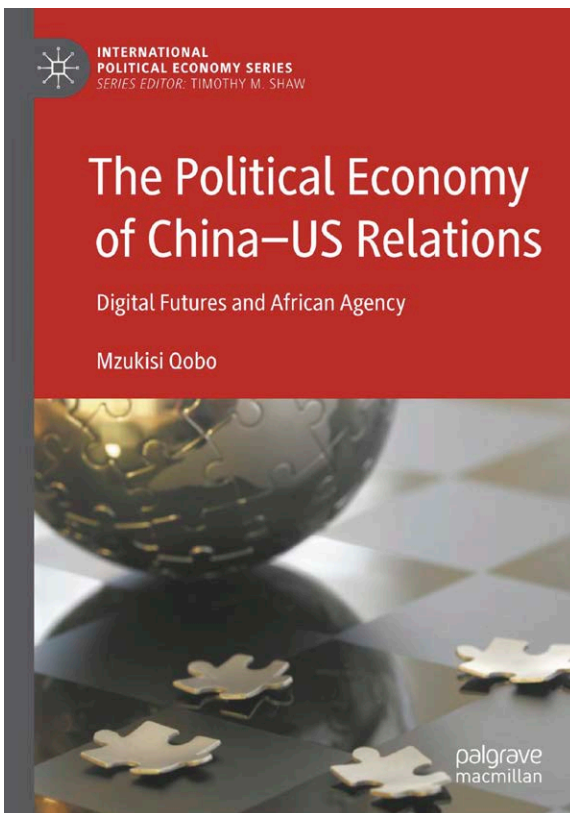
China emphasises big data and various types of AI, and the US states that it is still to determine “an authoritative list” of key technologies, but mentions several (microelectronics, biotechnology, quantum computing, 5G, robotics and autonomous systems, additive manufacturing, and energy storage technology).

Relating the technologies to South Africa’s socioeconomic status, the country’s document reports that these should be applied towards agricultural, energy and healthcare needs. There are indeed limits to the extent to which South Africa may adapt the plans of China and the US, given the different contexts and capabilities each already enjoys. This is recognised in the South African strategy, which seeks to carve out a developmental approach to 4IR, whereas the other two are efficiency and security driven.

South Africa’s strategy is thus determined to be uniquely home-grown but with inevitable similarities and influences from China and the US. A missing element in the South African strategy is the dimension of time, however. All eyes in Beijing and Washington seem set on 2025, whereas South Africa is silent on this front. [GGY](#)

A THEATRE FOR COMPETITION

The Political Economy of China-US relations: Digital Futures and African Agency, by Mzukisi Qobo.



This book is a timely and important read which shines the spotlight on many contemporary challenges affecting Africa’s political economy. It is an informed and thorough account of the past, present, and future issues informing Africa’s geostrategic policy dilemmas. The main value of the analysis is the holistic approach it provides, which offers an important framework from which to assess global power competition – from an African perspective.

The author extensively covers the genesis of current global power dynamics and explains why the African continent remains confined to the periphery of world affairs. In addition to providing a comprehensive account of the drivers that shaped the Westphalian liberal world order following World War 2, the author uses the prism of race to offer a unique and much-needed perspective on why existing power imbalances persist.

The “racialised global hierarchy of power” is often the elephant in the room in international relations discourse. Therefore, having a credible African author from the Global South offering some much-needed

insight into the matter is a very welcome change. Qobo looks at the exclusionary nature of global institutional architecture developed in this period and illustrates how it was not fit for purpose due to the asymmetric balance of power that deprived developing countries of any meaningful agenda setting.

In this context, he does not lament the breakdown of the global liberal order (currently underway), arguing it was not fit for purpose to begin with. Instead, he sees the current crossroads as an opportunity for African states to shift the “coordinates of global power in their favour”.

engagement. The analysis around the emerging Beijing consensus and its resonance with African states, juxtaposed against the failings of the erstwhile Washington consensus, is an important part of current global dynamics – where the battles for African hearts and minds are accelerating and Africa is emerging as a theatre for competition.

The author notes that in much of western discourse around Sino-Africa relations, China’s role in Africa is vilified. He observes that it is this suspicion and fear of China’s activities on the continent that is the parochial lens through which much of US foreign policy has been framed.

**The “racialised global hierarchy of power”
is often the elephant in the room in
international relations discourse.**

In explaining the limitations in US foreign policy towards Africa, Qobo notes that various American governments were “afflicted with the demon of racism at home, while on the other it pursued universalist ideals that were at odds with its domestic socio-political reality.”

The author compellingly makes this case, clearly articulating how incongruence between US external aspirations and domestic politics undermined their moral legitimacy as a credible global hegemon. This context is important in understanding the US’s historical engagement across Africa, which was shaped through what Qobo describes as a bifurcated world view, shaped initially by sympathy and strategic alliances with European colonial powers and later through the anti-communism doctrine that guided its Cold War foreign policy.

The author also explores the relationship between African states and China, and provides a textured approach to the discussion, showing both positive and negative dimensions of Chinese

For example, Qobo observes that by using the “scarecrow of debt-trap to paint China in a bad light and to discourage Africans from working with China, America is also projecting its low esteem of African countries as unable to reason for themselves, and make judgments between what is good and bad for them. America is burdening itself with safeguarding Africans from self-harm, precisely because it does not judge them as equally capable of making diplomatic and commercial judgments.”

The contrast in styles of engagement – from paternalistic to a more partnership-oriented one is explored in detail in the discussion on the Forum on China-Africa Cooperation (FOCAC) and Belt and Road Initiative, China’s flagship projects in Africa. This provides colour around Chinese economic and diplomatic engagement and how African states have responded to this courtship. The relationship between China and African states has often been criticised for being lopsided in favour of China, and this is something the author reiterates,

emphasising the need for African states to reorient the equation more favourably towards higher-value African exports.

Importantly, the author correctly notes that there is “no free lunch” with China, and that conditionalities apply, although these are perhaps less explicit than western ones. Although it is touched on, a more expansive discussion on the controversial issues of predatory lending and debt-trap diplomacy would have enhanced this chapter.

In the context of a potentially more inward-focused China in a post-Covid world, the continued evolution of this relationship is going to be a critical area to watch. As Qobo observes, “the key consideration for African countries is how they use this relationship to diversify their production base, improve the profile of their exports, and leverage Chinese technologies through requirements for joint ventures and technology partnerships to advance Africa’s digital transformation.”

With historical factors in mind, Qobo provides a sound explanation of why Africa’s development pathway cannot be linear, nor can it mirror the same processes that were experienced in other regions of the world. The context in Africa is unique and traditional models do not account for a multitude of factors, including premature deindustrialisation, green growth, or rapid technological shifts. Qobo argues that for African policymakers “the main preoccupation should be to improve its relative position in the global system and to advance its economic development along with structural diversification and the digital revolution.”

The author’s views on this matter echo my

own. I have long argued that leaders across the continent must adopt the concept of “smart cuts” to hack the ladder to economic prosperity – focusing on innovation, industrialisation, and integration to achieve exponential results. Importantly, Qobo acknowledges the importance and growing relevance of the African Continental Free Trade Area agreement in catalysing any structural transformation, while simultaneously acknowledging that there will be “variable

geometry” in how countries achieve this. Through the examination of traditional and scholarly models of growth, and their limitations, Qobo can illustrate how and why Africa needs to adopt an entirely new pathway that is rooted in digital transformation.

This segues neatly into the next part of the book, which explores the catalytic effect that digital technology can have in achieving “leapfrogging” in Africa.

The author highlights the remarkable success of several African innovations, which have solved societal problems, and illustrates how necessity drives innovation on the continent. Despite the enormous potential and opportunities, there are also significant limitations in the continent’s infrastructure – hard and soft – which constrain this growth. Moreover, the continent’s regulatory landscape will need to be significantly upgraded to unlock investment, create jobs, and achieve meaningful digital transformation.

This converges with the other core theme of the book – African agency in the context of power competition. As the author notes, “The US-China rivalry is essentially a battle for survival in a world that is increasingly taking an anarchic turn; it is about

Despite the enormous potential and opportunities, there are also significant limitations in the continent’s infrastructure – hard, soft, and digital - which constrain this growth.

trade, knowledge, and technological supremacy, as well as building spheres of influence along these domains. There are at least two ways to view this development: the first is that African countries could take advantage of this emerging divide and exploit it for its benefit; alternatively, the African continent could align with one of these powers.”

Unlike during the Cold War, where Africa became a battleground for proxy wars and ideological battles, and consequently exploitation, the current context offers an opportunity to avoid past mistakes by using global competition favourably for the continent’s development.

Indeed, Qobo argues that African policymakers now need to pursue diplomatic policies, which are driven by pragmatism and strategic and commercial value, rather than picking sides. He makes the case that as tensions between the US and China continue to simmer across multiple dimensions, including trade and technology, this will present opportunities for African nations to exploit the fault lines. This concept

of African agency is explored in depth in chapter nine, where he details how the contest around 5G technology offers an opportunity for countries on the continent to exercise leverage and commercial diplomacy based on self-interest, while maintaining their sovereignty – both digital and national. These examples are illustrative of the continent’s growing and unique importance in the digital domain as well as global power dynamics.

On a positive note, I thoroughly enjoyed the

concluding thoughts section of each chapter, which was a very neat way of capturing the key ideas discussed. It helped to connect the dots for a lay reader, who may not be able to fully absorb the dense and complex technical information outlined in the construction of the arguments. To this end, the arguments are sophisticated and generally

well-constructed and the writing style fluent, although sometimes it strays into overly academic territory.

One criticism is that the attention given to the forward-looking dimensions of Africa’s power relations is not given as much prominence as the historical ones. Although it is important to contextualise how and why past dynamics inform current realities, the first part of the book is perhaps a little too detailed and deviates from the core ideas around digital futures and African agency as presented in the title. As a reader, I found myself more interested in the “so what” for Africa, which is tackled much later in the analysis. In keeping with this theme, at times it also felt as though the author was

attempting to cover too much ground and that may have been better served using a different structure.

Overall, however, I found this to be an interesting and useful piece of scholarly literature. As a political economist and lecturer, this book would be very useful material for my students, and I would not hesitate to use this as material for future courses. It provides robust content and a useful reference point for anyone looking to understand Africa in the emerging global order. [GGV](#)

Unlike during the Cold War, where Africa became a battleground for proxy wars and ideological battles, and consequently exploitation, the current context offers an opportunity to avoid past mistakes by using global competition favourably for the continent’s development.

THE GIRL CHILD

To coincide with the United Nations' International Day of the Girl Child on October 11 this year, the next issue of *Africa in Fact* will be devoted to a close examination of the many challenges faced by these, the most vulnerable of this continent's young people.

The UN generally defines a child as a young person below the age of 18. Right across Africa young girls in this age group face what too often seem like insurmountable social, cultural, and economic obstacles due to their gender, leading to a lifetime of marginalisation and deprivation.

Poverty remains the main challenge to enabling girls to realise their full potential, not only in Africa of course, although they are our focus, but across the globe. But in addition to economic deprivation, there are also other multiple factors, some of them culturally complex, that exclude Africa's girl children from accessing the opportunities available to their brothers that offer a lifeline out of poverty.

The challenges specific to the girl child include lack of access to education purely due to gender, or due to the demands of domestic labour, early and child marriage, female genital mutilation, trafficking, and transactional sex. Poor or no access to healthcare is also a major factor in the marginalisation of girl children.

Our contributors have been briefed to not only examine the particular situation of Africa's girl children from all these perspectives but also to look at and critique current efforts by African governments and the African Union to improve the lives of the continent's young girls. This issue of *Africa in Fact* will also examine in some depth what must be done to ensure that girls take their rightful place in society and share in the benefits implicit in the UN's Sustainable Development Goals 2030. [GG7](#)

LOOK OUT FOR THE NEXT ISSUE ON **1 OCT**

LIVE

WEBINAR

Mail & Guardian



CHINA vs US

The battle for digital supremacy in Africa

DATE: WEDNESDAY 13 JULY 2022
TIME: 15h00 to 17h00 SAST

MODERATOR:



Dr Bob Wekesa

PANELISTS:



Dr. Cliff Ochieng' Mboya



Emeka Umejei



Abdul-Gafar Tobi Oshodi



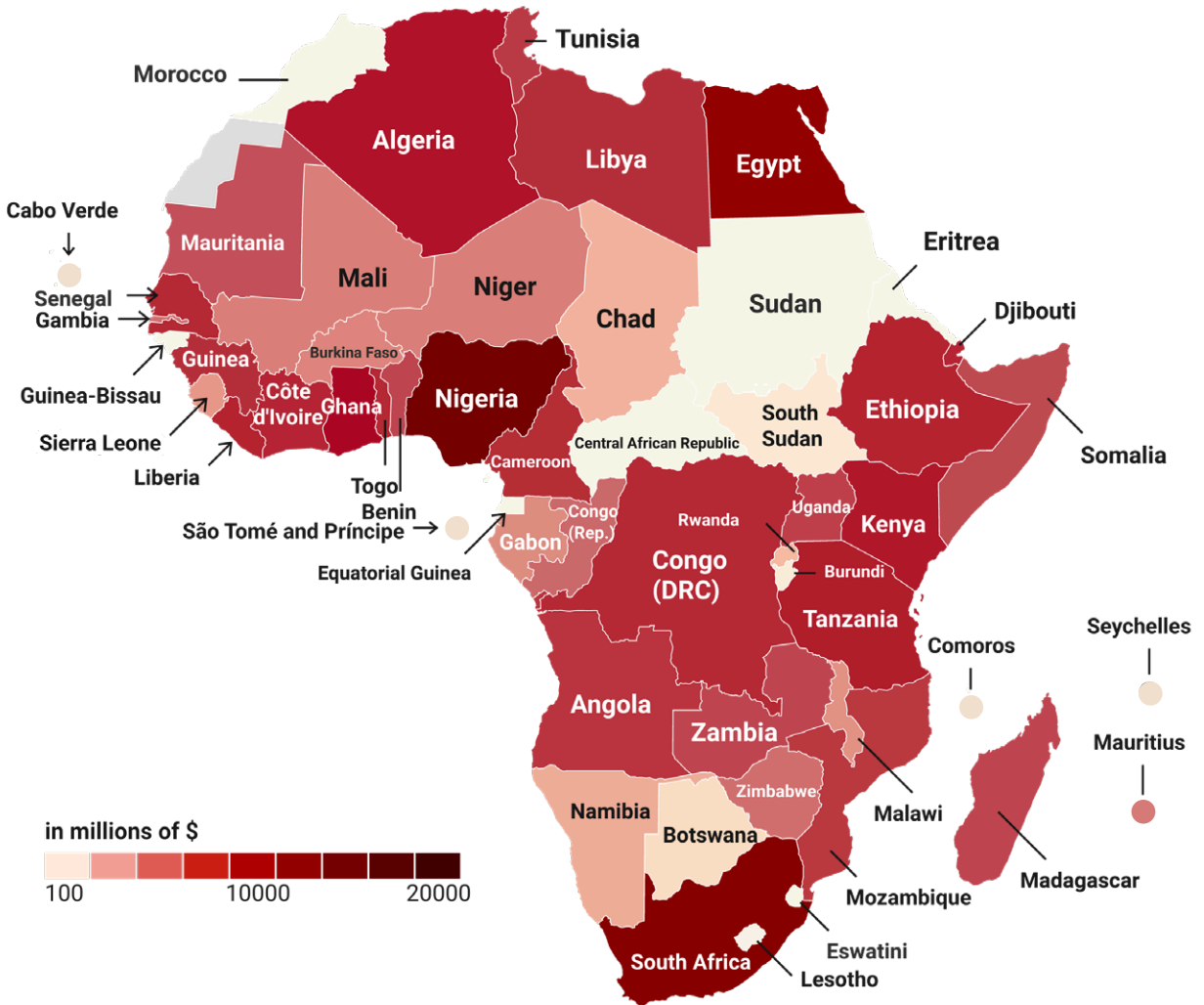
Odilile Ayodele



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AFRICA BY THE NUMBERS



Chinese ICT and machine exports to Africa (2015-2020)

VALUE OF EXPORTS BY COUNTRY IN MILLIONS OF DOLLARS

Algeria	5,600	Djibouti	2,310	Libya	1,880	Seychelles	54,9
Angola	1,750	Egypt	13,300	Madagascar	993	Sierra Leone	371
Benin	986	Equatorial Guinea	122	Malawi	394	Somalia	893
Botswana	185	Eritrea	70,5	Mali	468	South Africa	14,700
Burkina Faso	441	Eswatini	121	Mauritania	758	South Sudan	156
Burundi	147	Ethiopia	2,750	Mauritius	781	Sudan	2,51
Cabo Verde	81,5	Gabon	415	Morocco	4,83	Togo	2,240
Cameroon	2,020	Gambia	548	Mozambique	1,590	Tunisia	1,430
Central African Republic	27,9	Ghana	6,750	Namibia	319	Uganda	1,180
Chad	298	Guinea	1,910	Niger	479	Tanzania	4,170
Comoros	52,9	Guinea-Bissau	51,4	Nigeria	17,400	Zambia	916
Congo Republic	594	Kenya	4,860	Rwanda	282	Zimbabwe	547
Côte d'Ivoire	2,330	Lesotho	126	São Tomé and Príncipe	20,3		
DR Congo	2,130	Liberia	3,400	Senegal	2,230		