

SCENARIO 2 WHICH WAY NIGERIA?

→ In this scenario the government responds well to the challenge of technology but neglects the governance issue.

"Which way?" is a commonly used rhetorical question in Nigeria. It expresses a sense of exasperation at the state of affairs bearing in mind extant dilemmas and risks for the future.

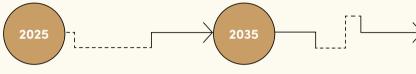
Timeline

Which Way, Nigeria?

Towards the surveillance state

New surveillance technologies

Conflict





Nigeria faces a series of security challenges, unrests, and secessionist impulses.

A new government is elected with the promise of increasing security.



A locally developed surveillance system manages to reduce insecurity and improve revenue.

Data becomes the "new oil", as the world transitions to renewables.



70% of the country is under surveillance, thanks to a partnership with Chinese firms, in exchange for access to Nigeria's 5G market.



Crime and security threats diminish significantly, while tax collection increases dramatically.

Reduced global demand weakens the importance of oil in Nigeria's economy.

Almost all economically active people are now banked and using a government mandated e-commerce platform.



With a better view of is citizens,

the government found ways to identify citizens who are productive and those considered of little value ('the Left Behind Class' – LBC).

To avoid surveillance, rebels isolate themselves in Do-It-Yourself (DIY) tech villages.

Religious groups also reject surveillance and become hermits.



2045

Globally, open science, open innovation, open data is the prevailing paradigm.

Climate change drives the transition to green technologies.



All data is now a global public good but with strong protections on privacy.

In Nigeria, data mining startups are thriving servicing the government.

Several cities grow due to more efficient infrastructure and migration of climate change affected populations.

Efforts to improve governance in Nigeria fail.

DIY villages, which are in a tech war against the government, grow as LBC people seek shelter from a major climate change impacts.

Slowly a semi-autonomous movement of 'tech liberators' emerges with the objective of revolution and providing Universal Basic Income (UBI) for all.



Overwhelmed, the Government recruits outlaws and provides them with surveillance tools and data to help in fighting the rebels.

The cyber war reaches a global dimension.

2025 Towards the surveillance state

Nigeria faces a series of security challenges from Islamists in the North, farmer-herdsmen conflict in the middle, rampant kidnappings, youth unrests and secessionist impulses in the South. At the same time dwindling oil revenues mean that security is increasingly unaffordable. The prospect of state failure is real. This was the key campaign issue for the 2023 elections and the new president won on the basis of restoring security.

He took on a recently returned policewoman whose PhD was on the potential for using technology to address security through better surveillance and predictive analytics. An innovation fund and challenge was quickly launched to develop a prototype of the surveillance system. A successful proposal was made by a local entrepreneur that combined surveillance with data analytics and also allowed deployment of armed drones and robots to carry out pre-emptive strikes against security threats.

Within 6 months, a major farmer-herder conflict was predicted and diffused based on data on cattle movements and weather. Two terrorist cells were broken using intense surveillance of a known sympathizer (movements, waking times). Later, a potential urban youth uprising was predicted by tracking game-playing patterns. Misinformation tricks were used to give government control of the movement.

The surveillance systems also had unintended positive effects. For instance, systems installed in marketplaces proved themselves effective in collecting data on market activities e.g., how much produce came in, how much was sold and at what price. The key revelation was the huge leakage in revenues.

Another revelation was the profits being made by market traders, with many making much more than middle class

employees yet paying zero income tax. By 2025, government was already gathering more tax with this new information. Data was indeed the new oil.

2035 New surveillance technologies

The utility of new surveillance technologies having been demonstrated, a special commission was set up for a national rollout but no local organisation could handle its speed and scale (and government wanted total control of system) so Chinese^{1, 2} and Israeli firms^{3,4} were contracted to implement a turnkey project. A consortium of Chinese firms, eyeing the big 5G market offered to do it for free in return for exclusive access to the 5G market. The ability to showcase surveillance technology for export to other markets in Africa and elsewhere was also an important attraction. Today, in 2035, 70% of the country is under surveillance, including all big cities and most road corridors.

The citizens were initially apprehensive but were persuaded by improved security. On roads, the hijacking has disappeared. Sure, they can no longer bribe police for traffic offenses (and have to pay fines) but they have realized that if they obey the law, they neither have to bribe nor pay fines. Muggings have also largely become a thing of the past and Nigeria is a 24-hour economy. There is only one power to deal with — the government — and since the government is clear about what it wants, life is quite easy (as long as you obey).

The government monitors national threats and takes preemptive actions, meaning security threats are generally fended off. And since it has been effectively monitoring its tax agents, they can no longer take bribes or steal from the state. Tax collection has increased dramatically. To further increase tax and ease its collection, the government has put in place a plan to move the economy online, with a new platform allowing informal traders to trade online, access government services and even enrol into national social security and access some support e.g., occasional grants.

^{1.} China has the most sophisticated surveillance system of its citizen able to recognize any citizen in a matter of seconds. The state has amassed an astonishing amount of data about its citizens, which it uses to punish people for even minor deviations from expected norms.

^{2.} Davies, D. (2021). Facial Recognition And Beyond: Journalist Ventures Inside China's 'Surveillance State'. NPR. [Online]. 5 January 2021. Available at: https://www.npr.org/2021/01/05/953515627/facial-recognition-andbeyond-journalist-ventures-inside-chinas-surveillance-sta

^{3.} Israel has a highly developed surveillance technology sector developed from experience policing occupied territories. Israel is now a global leader in this sector and these technologies are now one of the major exports of Israel.

^{4.} Kane, A. (2016). How Israel Became a Hub for Surveillance Technology. The Intercept. [Online]. 17 October 2016. Available at: https://theintercept.com/2016/10/17/how-israel-became-a-hub-for-surveillancetechnology/

To encourage use of the platform and enrolment on the online payment system, free smart phones have been provided with free data for financial transactions. Again, Chinese firms provided the financing. Almost all economically active people are now banked and are using the platform, and almost all consumers are online, making monitoring and taxing much easier for government. A new appreciation of technology has seen massive investment in equipment and skills and a re-organisation of government, with the Ministry of Finance now merged with Defence and Internal Security, under a super minister.

The vast amount of data now in possession of government has opened opportunities to build new businesses, as new elites bargain with government on data concessions^{5, 6}. This has provided some stability. Oil has now faded from being the most important source of revenue for the state, as prices have slumped with reduced demand globally.

New data has allowed better segregation of people who can now be valued and commercialized. New identities tied to marketplace have been engineered.

People become a commodity!

With a better view of its citizens, the government has found ways to identify citizens who are productive and those considered of little value ("the Left Behind Class", LBC). "Productive citizens" are given priority in providing servic-

es, while "the LBC" are generally abandoned to their devices but monitored in case they become restless (in which case pre-emptive action is taken).

Given the prevalence of open technologies globally, there are reports that some groups of technology rebels are beginning to organise themselves into Do-It-Yourself (DIY) tech villages that will be able to block surveillance technologies and even hack the government systems^{7, 8}. The cost of fighting these nascent rebel groups is currently seen as not worth it and they are largely left alone. But their villages are growing and are becoming part of a global movement against the surveillance state^{9, 10, 11} with the diaspora acting as a bridge.

The religious communities of Nigeria have largely followed the government direction and, in return, data on their congregations is made available allowing them to accurately establish incomes and tithe accordingly. However, a splinter group that sees end-of-times doom emerges, just as the government begins to take biometrics from all citizens and equip all livestock with chips^{12, 13}. They reject the system and become hermits.

In this world, criminal gangs prey on the LBC and the hermits.

2045 Conflict

It is 2045. Cities have grown as a result of government encouragement of "more efficient" urban growth, and resources have been allocated to provide basic infrastructure. The more educated have emigrated as they

^{5.} In China which has amassed vast data on its citizens, it has been found that private contractors and middlemen have wide access to personal data collected by the Chinese government.

^{6.} Mozur, P. and Krolik, A. (2019). A Surveillance Net Blankets China's Cities, Giving Police Vast Powers. The New York Times. [Online]. 17 December 2019. Available at: https://www.nytimes.com/2019/12/17/technology/china-surveillance.html

^{7.} These are the equivalent of the self- sustaining communities in Aba and the illegal oil economies that steal and refine crude oil from pipeline.

8. Taylor, A. (2013). Nigeria's Illegal Oil Refineries. The Atlantic. [Online]. 15 January 2013. Available at: https://www.theatlantic.com/photo/2013/01/nigerias-illegal-oil-refineries/100439/

^{9.} The Electronic Frontier Foundation (EFF) is the leading non-profit organization defending civil liberties in the digital world. EFF uses the unique expertise of leading technologists, activists, and attorneys in its efforts to defend free speech online, fight illegal surveillance, advocate for users and innovators, and support freedomenhancing technologies.

^{10.} EFF [Electronic Frontier Foundation] (c 2021). About EFF. [Online]. EFF. Available at: https://www.eff.org/about

^{11.} Wide, V. (2016). A Brief Guide to Combatting Mass Surveillance. [Online]. The Science Creative Quarterly. Last updated: 13 December 2016. Available at: https://www.scq.ubc.ca/a-brief-guide-to-combatting-masssurveillance/

^{12.} Biometric identification systems have been associated with the mark of the beast referred to in the Book of Revelations

^{13.} Whitehead, J. W. (2011). The National Biometric ID Card: The Mark of the Beast?. Huffpost. [Online]. May 25 2011. Available at: https://www.huffpost.com/entry/the-national-biometric-id_b_542821

cannot tolerate the surveillance state and do not have appetite for being rebels in the DIY Semi-Autonomous Tech villages. Climate change has only accelerated urban migration, although the LBC cannot avoid nor endure the vagaries of climate change. The DIY villages have adopted green technologies like windmills and solar and are using 3D printing, blockchain technologies and other "fourth industrial revolution" technologies as part of a tech war with government.

Many data mining start-ups have now been established and are thriving servicing government (with the sponsorship of various owners of data concessions). Government is employing legions of social engineer experts to develop new identities and undermine traditional sources of power.

Globally, open science, open innovation, open data is the prevailing paradigm. The battle against COVID-19 saw the adoption of the open science principle and the subsequent development of several vaccines in under a year demonstrated the power of open science. With the other looming challenge, climate change, becoming a bigger danger by the day and requiring the invention of many technologies, and indeed a whole shift of the economy to green technology, the world agreed on "open science, open innovation, open data" and a global agreement was reached.

The mandate of United Nations Educational, Scientific and Cultural Organisation (UNESCO) was greatly expanded and all countries agreed to contribute a 0.5% share of revenue to an innovation fund to support global R&D. In this spirit, big Tech companies were forced to make their data available to all. Indeed, all data is now a global public

Overwhelmed, the government recruited outlaws and provided them with surveillance tools and data to help in fighting the rebels.

good but with strong protections on privacy. People have control of their personal data and can sell it. A thriving market to sell personal data emerges.

However, tragically, efforts to improve governance in Nigeria have not been successful and the idea that countries should not impose their governance standards on others has prevailed.

A major climate change event (huge flood in South and huge drought in the North) a few years ago triggered a massive movement of LBC people mainly to DIY enclaves which are less dangerous.

Slowly a semi-autonomous movement of "tech liberators" has emerged with the objective of revolution and providing Universal Basic Income (UBI) for all. They have reached out to the LBC, educated them on cyber warfare techniques and started to engage government. They do counter surveillance and publicise every movement and transaction of key government officers and enablers. ¹⁴ They also flood certain parts of the system and bring them down. The diaspora provides financial and technical support. ¹⁵

They got some data concessions as part of their payment as well as access to powerful tools usually only available to the government. Reports have emerged that mercenaries from the global dark web are invited to join the local outlaws. The fight is also joined by hackers from the open world who support the Tech Rebel coalitions with new tools and even cyber warriors. The cyber war has a global dimension.

It is not clear what will happen next. Either rebels will overwhelm the government and make their systems unusable, forcing the government to open surveillance systems for oversight by civil society. This could lead to new leadership that is accountable, making available the full benefits of open technology/open science. Or the government could prevail, with the support of criminal elements. The criminals with other forces would gain new power and expand their zones of influence, demanding a greater share of revenues on data concessions.

Imagining Futures: Four Scenarios For Nigeria

Scenario-building processes focus on the long term. Scenarios are a creative way of shining a light on the critical factors that will drive countries in one direction or the other. They don't make predictions, nor even explore which future is most likely. They help decision makers think through how to better manage uncertainty and complexity, the only constants in today's world.

In imagining alternative futures for Nigeria, four (4) scenarios were developed. They include Fire On The Mountain, One Chance, Which Way Nigeria? and African Giant Awake. The scenarios visualise Nigeria over a 25-year period (2025 – 2050) under varying conditions of technology and governance.

Imagine Futures: Four Scenarios For Nigeria is a section from the main report Imagine Nigeria

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