



A-Z about elections in your country and the world.

# IS ELECTRONIC VOTING A SECURITY NIGHTMARE?

**November** 2020  
Review



After protests that rocked major cities in Nigeria in October, the conversation about the 2023 elections has expanded across various social media platforms. And whenever there is a conversation about elections, the issue of electronic voting always surfaces.

In April, we looked at the steps INEC was taking to make manual voting a thing of the past, how voting is done and what Nigeria can gain from having an e-voting system. The popular perception about biometric voting and other forms of electronic voting are those of confidence in the ability of technology to reduce electoral fraud and other irregularities, as well as strengthen the quality of the electoral process.

However, researchers have drawn attention to the fact that adopting these technologies can make the voting process vulnerable to hacking. Also, in Nigeria, there is no independent source that is not government controlled that can audit INEC's servers and ensure that there is no security bridge in accrediting voters and transmitting results. So, the real challenge is not with creating and deploying these technologies, even though they come at a cost. The problem is with the credibility of this process and if the infrastructure is designed to meet basic standards of information security.

# What the Experts Say

Amara Nwakpa, Coordinator for Public Policy Initiatives at the Yar'adua Foundation thinks Nigeria may be running too fast, trying to digitize voting considering the challenges identified, and the inability of the electoral body to become ISO certified.



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*“From an information security perspective, electronic voting is a nightmare. And I understand why people don’t appreciate this because security is both a reality and a perception. A lot of times, people react to the perception of security, not necessarily the reality of it. You might think that you are secure, but in actual fact you are not. You might have the perception that you are insecure while in actual fact you are.”*

*Amara Nwakpa*

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# What Can Nigeria Do Differently?

Since the technologies can be disrupted negatively, should Nigeria stick to a paper ballot system then? No, these also come with its challenges. A technology that gives little to zero room for mutability of records may help solve this problem.

Mr. Nwakpa thinks that one-time programmed computers may solve the credibility challenge. Computers used to transmit election results or accredit voters should be ROM devices.

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*“In Digital Architecture, there is always a requirement for immutable records. With electronic voting, you have to have that. The question is, where do you create those immutable records? The best place to do that is to create them in the field where the voting happens and to have either the voters create the record themselves or have the voters observe while the record is being created.”*

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# Lessons from India

While India has a larger voting population than Nigeria, elections are cheaper. This is because they have deployed technology smartly and they have deployed it credibly. India first employed the use of electronic voting in 2004 where over a million Electronic Voting Machines (EVM) were deployed. The EVMs comprises two units, The Control Unit which is handled by the polling staff and the Ballot Unit for use by voters. It is a simple balloting unit where the voter presses the button next to the candidate's name and party symbol. A light next to the button glows, followed by a short beeping sound to indicate that a vote has been cast. The EVMs were programmed to record five votes a minute, to prevent over voting. The EVMs also come in rechargeable parks in case of power challenges in remote areas. So, ballots are not printed pre-voting but voters create their own records at the point of voting and get 'receipts' of their vote. The system has in recent times come under scrutiny by researchers and this is not due to a failure of technology alone but largely due to lack of transparency at government level as some discrepancies were identified. For instance, a group that identifies as the 'Right to Information' in 2019 revealed that the claim on the EVMs being one-time programmed may be far from truth.



# Bottomline

Despite the scale or simplicity of technologies used in the voting system, the leading item that remains accountability in employing the process. The problems that paper ballots present appear in electronic balloting as well but with different dynamics as technology has the dimension of cultural value and personality orientation. Third party vendors and software developers or adhoc staff used for elections need to be verified as not having a history of breaching security. GPS enabled vans can also become the norm for the transportation of electoral materials.