


youth perspectives on tech & artificial intelligence

Empowering Digital Democracy and Public Service Delivery in Kenya



POLLICY



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Executive Summary

The development of technology has created a new era that poses digitalization at the scene's epicenter. In the public sector, governments have been embracing technology to keep up to date with innovative trends that are revolutionizing the development of international relations. The evolution of digital governance from basic online services to incorporating advanced technologies like artificial intelligence and block-chain has radically transformed the citizen-government relationship by enhancing efficiency, transparency, engagement, and accessibility to governmental data.¹

We live in an age of public accountability in which governments in new and old democracies are under increasing media and public scrutiny. There is growing demand that governments, public institutions and officials grant access to information concerning controversial actions and decisions. In the context of local government, accountability becomes critical since local authorities are closer to the citizens and the central governments channels services to the citizens through them. Their performance or lack of it therefore impacts directly on the central government. Many services such as education, health and social services are delivered at the local level and affect the poor hence stronger accountability and increased oversight provides a better institutional framework for effective delivery of such public services aiming at reducing poverty and promoting shared growth.²

This study explores young people's perspectives on the adoption of current, emerging and future technologies in governance and democracy, with a focus on AI. It aims to understand how their tech-driven nature can contribute to the ongoing development of digital governance, particularly in the future integration of AI into public administration.

¹ Candela (2024), *The Rise of Digital Governance: Embracing Technology for the Development of Public Services*

² Kenya Law (n.d), *Integrating accountability mechanisms in local government*

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List of Acronyms and Abbreviations

ICT: Information and Communication Technologies

AI: Artificial Intelligence

GenAI: Generative AI

LLMs: Large Language Models such as ChatGPT (Chat Generative Pre-Trained Transformer)

GPT: Generative Pre-Trained Transformer

IoT: Internet of Things

VR & AR: Virtual Reality and Augmented Reality

GenZ: Generation Z

HKSDP: Huduma Kenya Service Delivery Programme

FINTECH: Financial Technologies

FGD1: Focus Group Discussion 1

FGD2: Focus Group Discussion 2

Definition of Key Terms

Digital Democracy: Also called Internet Democracy. Adoption of ICT in governance and political processes including use of social media platforms.

E-Citizen: A web based platform where the Kenyan government provides services digitally to its citizen

e-Governance: Electronic Governance with utilization of ICT

Gen-Z led Protests: Youth-led protests in Kenya that took place from June - August 2024, to oppose the Finance Bill 2024 and the other corrupt misconducts by the Kenyan government.

Gen-Z: Also called Generation Z. People born between 1997-2012. They succeed the Millennials

Huduma Centres: Kenya Service Delivery Centres for services such as application of Identification Card (IDs), passports, certificates, etc.

Huduma Services: Public services provided at huduma centers or e-citizen platforms

Kenya Finance Bill: A bill that proposed changes to the tax system of Kenya, which involves tax increases. The proposed bill aims to raise 346 billion Kenyan shillings to pay off debt and fund development projects

Millennials: People born between 1981-1996. They precede Gen-Z and succeed Generation X.

Background

Kenya has the largest, most diversified economy and the second largest population in East Africa. It also has a young, ambitious, and well-educated workforce eager to contribute to the development of the country. These factors have helped the country become a leader in mobile money and information and communication technology.³ Just like most of Africa, Kenya is a country of majority youth according to the 2019 Population and Census results which shows that 75% of the 47.6 million population is under the age of 35. The youth population (18-34 years) constitute 13,777,600 (29.0 per cent) in 2019 compared to 11, 809,518 (28.7 per cent) in 2009.⁴ Considering the high proportion of youth in the country, Kenya is facing a youth bulge. This youth bulge is considered both as “an opportunity and a threat: an opportunity to social and political development while at the same time presenting risk and threat to the country’s social cohesion and stability if not adequately empowered and supported”.⁵

According to Youth Vipi, only 49% of the youth had voted in the last Kenyan elections. Young citizens feel less concerned about politics and can even feel their vote makes little difference. They may also feel they don’t know enough to choose who to vote for. The other issue is that young people are the future, and they will be the ones to feel the political changes in a country for years to come. Strategies must therefore take into account how they can make the issues more relevant to them, and convincing enough for them to create engagement at the legal voting age of 18. Information must be broken down, and simplified enough for any audience to follow.⁶

Despite significant anticipation that AI will transform public services, the evidence of governments’ ability to effectively leverage digital technologies warrants tempered enthusiasm.⁷ AI is expected to play a greater role in the way that governments and public institutions operate, and the way in which citizens interact and participate in democratic processes. The hopes placed on AI are accompanied by a similarly high number of fears and concerns, mostly related to ethical issues, including human rights, and to the reliability (or security) of the technologies. By its present and

3 USAID (n.d), *Country overview*

4 Ndungu (2020), *Citizen digital: retrieved from out of 47.6 million Kenyans, 35.7 million are under the age of 35*

5 Kinsbergen (2023), *A study on youth engagement in Kenya*, p.6

6 Kanstrup (n.d), *Youth engagement through digital democracy*

7 Peixoto, Canuto & Jordan (2024), *AI and the Future of Government: Unexpected Effects and Critical Challenges*

future impact on social life and organization or by its reliance on young people to programme and fine-tune AI technologies, AI is very closely related to young people. Yet, there is relatively little research and information about how AI will impact on young people as citizens in transition to autonomy regarding their well-being, possibilities to participate and shape society and their access to rights, including social rights.⁸

To promote youth participation in public governance, public institutions need to transform the way they interact and engage with young people and empower them to fully unleash their potential. There are several challenges and barriers to public participation of youth, including the lack of interest, low awareness on the available opportunities and channels of participation, lack of information and skills, absence of incentives, and lack of trust in government, among others.⁹

Effective youth engagement in decision-making and public service delivery requires that governments have a keen understanding of young people's demands and priorities. It necessitates effective communication channels to raise awareness and inform youth of government policies that affect their lives. It also requires putting in place mechanisms to facilitate youth's participation in policy consultations and decision-making as well as processes for co-designing and co-creating policies and services. Experience has shown that digital technologies can be leveraged through e-participation.¹⁰

8 Council of European Portal, *Artificial Intelligence seminar 2020*

9 United Nations Department of Economic and Social Affairs. (2023), *promoting youth participation in decision-making and public service delivery through harnessing digital technologies*.

10 United Nations Department of Economic and Social Affairs. (2023), *promoting youth participation in decision-making and public service delivery through harnessing digital technologies*.

Introduction

Empowering Progress: Digital Transformation in the Developing World

The widespread adoption of mobile phones and the growth of the internet have opened up new avenues for citizens to access information, bridging geographical and social divides. One notable achievement is the Huduma Kenya platform, which provides a one-stop shop for government services and information. This digital portal has simplified access to essential public information and services, making them readily available to Kenyan citizens. The Kenya Open Data Portal, launched in 2011, is a prime example. It provides access to datasets on various sectors, from healthcare and education to agriculture and finance. Such investment fosters transparency and accountability and empowers citizens to monitor and evaluate government activities actively.¹¹ The Bottom-up Economic Transformation Agenda, prioritizes the digital superhighway and creative economy pillars and commits the government to develop a robust national ICT infrastructure to support online delivery of government service and enhance universal access to information.¹²

Implementation of e-Governance projects in developing countries helps the people in accessing government schemes. In 2003, Yangon City Development Committee (YCDC) was launched by the Government of Myanmar to provide easy access between the government and the city's citizens via internet, to reduce paper usage, to reduce the city budget, to build the city's fiber ring, to provide timely public information, to store public data etc.¹³ The African Union Digital Transformation Strategy for Africa (2020-2030) overall objective is to harness digital technologies and innovation to transform African societies and economies to promote Africa's integration, generate inclusive economic growth, stimulate job creation, break the digital divide, and eradicate poverty for the continent's socio-economic development and ensure Africa's ownership of modern tools of digital management.¹⁴

Technology can be used to encourage citizen engagement with platforms allowing citizens to call in and ask their leaders questions or allowing them to register for public services, register for voting, register for identification cards, passports and other services online. Technology for service provision has many advantages e.g. promoting efficient and cost-effective delivery of public services, increasing transparency, simplifying access to official information, reducing corruption, simplifying communication and promotes data sharing across institutions which comes with great benefits.¹⁵

According to the Geneva Graduate Institute, digital technologies and democracy have an ambivalent relationship. On the one hand, digital technology can foster innovative forms of citizen participation and give voice to social movements through social networks, online citizen consultations and other

11 Ochieng (2023), *Leveraging Technology to Advance Access To Information In Kenya*

12 Ministry of Information, Communication and the Digital Economy, *Draft National Access to Information Policy*, p.11

13 (n.d) *Historical background of e-governance*, Chapter 2, p.3

14 African Union, *The Digital Transformation Strategy for Africa(2020-2030)* p.2

15 Pollicy (2019), *Civic Participation: How to Use Technology to Participate*

civic tech. Add that AI plays a major role in three levels of citizen participation, i.e. information, consultation, and decision and AI is now at the heart of the information ecosystem by selecting the information that everyone consults online. AI is also present in surveillance practices, in political communication, and in some citizen consultations.¹⁶

Kenya's Digital Future: Shaping Tomorrow's Innovation

Kenya has been a trendsetter when it comes to adoption of both mature and emerging technologies as evidenced by the growth in FINTECHS and mobile money largely driven by the private sector. The AI technologies and capabilities will be the in thing in the next 5-10 years and Kenya cannot afford to be left behind or to be the late laggards, it adds. Kenya can support Research and Development of this technology and encourage harnessing of the AI capabilities to solve local problems while exporting the same capabilities to other countries either through skill AI human capital or through AI products and services.¹⁷

According to the Huduma Kenya Digitization Plan of 2023/2024 and 2025/2026 digitalization of Government services is a priority focus area for the Government, with the Government committing to digitize and automate 80% of critical Government services.¹⁸ The plan aims to offer new ways to serve and empower Kenyans as they interact with the Government, and is in alignment with the Constitution of Kenya and the Kenya Digital Masterplan 2022-2032.

Youth at the Helm: Shaping the Future

It is imperative to empower Africa's youth to be able to leverage the speed, breadth, and depth of AI advancements to unlock the continent's potential and solve development challenges. AI holds the promise of creating jobs, fostering innovation, and expanding access to essential services like healthcare, education, and finance.¹⁹

To promote effective youth engagement in public governance, it is essential to understand the behaviors and characteristics of young people in communication and participation and tailor the policy dialogue and engagement strategies and channels accordingly. Young people are used to instantaneous communications and prefer to receive quick feedback. In this regard, providing prompt or real-time responses is critical when interacting with youth. They prefer contents that are easily accessible and presented in a friendly, fun and creative way. Therefore, using visual-oriented, intuitive and interactive materials with clear and straightforward messages would be an important strategy for communication with youth. The modalities of youth participation are increasingly becoming informal or unconventional, and young people are more inclined to non-institutionalized channels of political participation, for example, young people prefer to use social media as an important place to voice their concerns about social issues.²⁰

16 Geneva Graduate Institute (2024), *Youth Shaping the role of Artificial Intelligence in Democracy*

17 *The Kenya National Digital Master Plan 2022-2032*, p. 72

18 *Huduma Kenya Digitization Plan (2023/2024-2025/2026)*, p. v

19 Lusigi (2023), *Positioning Africa's youth to win by harnessing AI for development*

20 United Nations Department of Economic and Social Affairs. (2023), *promoting youth participation in decision-making and public service delivery through harnessing digital technologies*.

Objective

The overall objective of this study is to explore and examine how digital and emerging technologies can be effectively harnessed and leveraged to increase, enhance and influence youth civic discourse in Kenya's with focus on the intersection of technology and civic engagement.

1. To assess Kenyan youths' views, understanding, and perceptions of digital and emerging technologies and their adoption in democracy and public service delivery.
2. To identify opportunities and recommend best practices for a youth-friendly and inclusive digital democracy and governance, including the future adoption of AI in Kenyan government administration.

Methodology

The research employed a qualitative methodology with a descriptive design approach. The study was conducted virtually with participants drawn from Nairobi, for ease of access and to mitigate cost and availability constraints. 56% of all participants were female while 44% were male. All participants were within the age bracket of 18-35 years.

Purposive and convenience sampling was used to select participants from existing networks known to the researcher. Data was collected using a semi-structured questionnaire, with questions gauging participants' opinions, views, experiences, and perspectives on the current use of technology and the future application of emerging technologies, such as AI, in democratic processes and service delivery in Kenya.

Focus group discussions were used to gather information and provide in-depth insights into the subject under study. Two focus group discussions were conducted with nine out of the targeted ten to twelve participants. The participants comprised youth working in ICT, cybersecurity, communications, data and software engineering, youth engagement and participation, and governance, including youth working in government ministries and those actively involved in governance processes.

Participation in the research study was voluntary. Participants were informed of their data and privacy rights, as well as data handling procedures, through an online consent form (Konsent Kit). Detailed information was provided when seeking consent to participate in the study including their right to withdraw from the study at any given point. An allowance of 2,000 KES (15 USD) was given to participants to cover data and airtime costs.

Findings

Perception and Understanding of Digital and Emerging Technologies

In terms of perception and understanding of emerging technologies, the participants interviewed demonstrated the highest familiarity with Generative AI, such as Large Language Models (e.g., ChatGPT, Gemini), at 45%. This was followed by the Internet of Things (IoT) at 20%, Robotics at 10%, and Machine Learning at 10%. Other technologies, including Blockchain, Cloud Computing, Virtual Reality (VR) and Augmented Reality (AR), Recommender Systems, and tools like Canva, each accounted for 5% of the participants' familiarity. These percentages were measured against the emerging technologies participants identified as those they are most familiar with and frequency use in their daily lives.

“ Internet of Things. This is where you buy, you know, your devices, like you've seen people calling them smart fridges, smart washing machines, but it's also integrated into the internet of things. _ FGD1 Participant

Another FGD participant explained what they understood by Blockchain -

“ That is the technology that is behind cryptocurrency. Because what blockchain does, it is a heavily encrypted form of networking, whereby irregardless of where you are, as long as you're connected to the internet, you can transact, you can send and receive money, ideally, because it is mainly used for that. _ FGD1 Participant

This affirms that young people are among the largest demographics most familiar with new and emerging technologies and are leading in their adoption. This further highlights how their digital nativeness significantly contributes to the rapid integration and use of these technologies, with all participants having familiarity with at least one emerging technology.

Adoption and Application of Digital Technologies including Emerging Technology for Democratic Participation

Generative AI Such as Large Language Models

LLMs like ChatGPT are being utilized by the youth who are natives of these technologies to engage with government information and processes. They prefer simplified, interactive content, making it easier for them to understand and navigate complex information that would otherwise be overwhelming. This approach addresses their aversion to traditional methods, such as reading through extensive documents. An example of this was during the GenZ-led protest where a GPT model was extensively used to simplify the Kenya Finance Bill, a matter of national importance to the Kenyan people especially the youth who were the most affected by the Bill. This method allowed the youth to more effectively understand and engage with the Bill, bypassing the need to read through lengthy documents, at a time where immediate action was of crucial importance.

“ But there’s the Finance Bill GPT, which is an extension that was created out of ChatGPT. And basically, what it does is that it tries to simplify the Financial Bill, which is almost 161 pages. And it has a lot of legal jargon, and a lot of finance and accounting jargon, that even if you’d like to protest from a point of knowledge, that alone may discourage a lot of people, especially the young generation. _ FGD1 Participant

And another participant added:

“ A young man who, during, when the Finance Bill came out, he took the document and uploaded it somehow on ChatGPT, and then it simplified everything for the young people. So people would just go and read whatever they want to read, and it was so simple for the youth to even follow, because most of these documents are not only huge, but also very hard to understand. So that was one of the things that I think was very crucial in this digital democracy. _ FGD2 Participant

These LLMs are also being utilized to hold government officials accountable and advocate for improved public services and government transparency. By leveraging these technologies, citizens, particularly the youth, are demanding greater accountability, efficiency, and responsiveness in government actions and policies.

“ This Corrupt Politician GPT, you just need to type the name of that politician, and it’s able to give you any corruption cases associated with this individual, which is quite amazing. _ FGD2 Participant

Another participant added:

“ We also have one that has actually been developed also around the new Social Health Insurance Fund, where you’re able to actually ask question in terms of the insurance policy, but also tariffs around the new fund, and what are there, what healthcare options are available._ FGD2 Participant

Cloud Computing

Cloud computing is the on-demand access of computing resources—physical servers or virtual servers, data storage, networking capabilities, application development tools, software, AI-powered analytic tools and more—over the internet with pay-per-use pricing.²¹ Cloud computing is being quickly adopted in government administrations, examples is in the United States of America quoted by the former first Chief Information Officer of the United States, Vivek Kundra where he is quoted in 2009, to believe that cloud computing represents a “tectonic shift” in computing technology predicting that, ultimately, “the cloud will do for government what the Internet did in the 1990s.”²²

An exceptional cloud-based tool called Notion, stored, organizes and manages data information and databases.

²¹ Susnjara & Smalley (2024), *What is cloud computing?*

²² Wyld (2009), *Moving to the Cloud: An introduction to cloud computing in Government*

“ We also have one that has been developed by, it was developed especially after the election of 2022, where there’s a fellow who is tracking the Kenya Kwanza government promises in a spreadsheet. And of course, he’s using this software called Notion, where he’s able to track any promises that was made, and how far that promise is as we speak, and who actually made the promise, which Ministry made the promise, and how far do we see that actualization and do we see any contradiction towards these promises. _ FGD2 Participant

Excel is another known cloud-based tool that is perceived to offer similar functionalities in terms of collecting and storing open data.

“ We have Google Excel documents, initially it was just Excel. And it is popular among people who love data, and I believe it is one technology that will still stand the test of time, because it’s the basic to what AI is, using Excel to populate data, and then the data is used to do other things. _ FGD1 Participant

This highlights potential opportunities for governments to adopt cloud-based systems for their administrative operations, offering enhanced reliability, cost-effectiveness, scalability, speed, performance, and security, while also allowing for greater openness, transparency, and accountability to citizens.

Social Media-Facilitated Activism and Awareness Creation

A significant percentage of today’s African youth use digital forums to develop civic identities and express political viewpoints in innovative ways, claiming agency that they may not have in conventional civic platforms.²³ In urban settings, the younger population have greater access to information than their rural-based colleagues and may be more engaged in decision making processes. However, this largely depends on the modes of communication and engagement employed by the governments. Use of technology such as online media engagement attracts more participation by youth but youth often mistrust and dismiss government processes based on their past experiences with the government, misinformation and general sentiments of their views getting overlooked.²⁴

“ But in the past, Kenyans have used social media, I believe social media is our technology. Through social media or digital activism, they’ve been able to use hashtags to be able to bring about change. Amongst previously widely known hashtags that has had influence includes the “my dress, my choice” which is similar to the “MeTooMovement”, “COVID-19 millionaires”, “OccupyPlayground”, “JukumuLetu”, “M-pigs” that was targeted towards corrupt Mps, among others.

_ FGD 1 Participant

²³ Voice (2022), African Youth transforming digital and Political spaces

²⁴ Davanne (2019), How Kenya is empowering youth to participate in government budgeting

The rising influence of social media platforms like TikTok and X (formerly Twitter) has been instrumental in recent civic activism and awareness campaigns, particularly those led by youth.

“ On X space, which is also another digital campaign, where young people are engaging the president of Kenya and just explaining or giving out their thoughts. And it’s a whole conversation, something that has never happened before, which I think is also commendable. _ FGD2 Participant

Another participant alluded to

“ TikTok, which most people do use Twitter, but then there’s a certain age group that is not really conversant with Twitter, so most of them usually use TikTok. TikTok has really helped the younger people to understand what the Finance Bill is, how it impacts us. Because honestly, for me, I’m a visual person, so I need to watch and see like, how is this gonna impact me, and I think TikTok has really helped me and the younger people also, because now we know what we stand to lose and what we’re actually fighting for. _ FGD1 Participant

An analysis by Nendo indicates that the top anti-finance bill conversations, driven by #RejectFinanceBill2024, #OccupyParliament, and #RutoMustGo, recorded 24,989,246 mentions on ‘X Space’ between June 12th and July 1st, 2024. A peak in mentions was observed on Tuesday, June 25th, when protesters stormed Kenya’s Parliament. The use of ‘X Space’ proved highly effective as a digital town hall to meet, organize, and amplify their messages.²⁵

Case Study: Adoption of Virtual Reality (VR) and Augmented Reality (AR)

Bartolini (2024), argues Augmented Reality (AR) finds significant applicability within participatory approaches, particularly in the realm of urban planning. A noteworthy example is its successful integration into the planning process for a portion of Oslo’s project involving the planting of 100,000 trees between 2020 and 2021. This initiative engaged five distinct groups of youth participants hailing from eight different districts of Oslo. Virtual Reality (VR) is a technology that creates a simulated, interactive 3D environment and it can play a role in augmenting citizen engagement and participation, especially within the realm of participatory design for public projects. Unlike traditional participatory design techniques that often rely on digitally produced still images, VR immerses individuals in a computer-generated environment, providing a more comprehensive understanding of urban issues. It significantly enhances spatial comprehension, allowing citizens to grasp the implications of different design decisions more effectively. In a participatory process conducted for an urban design project in Santiago (Chile), VR demonstrated its ability to facilitate the generation of precise, relevant, and valuable comments from citizens. This immersive technology goes beyond the constraints of static images, enabling participants to experience proposed changes more vividly and comprehend the potential impact on their surroundings.²⁶

²⁵ Nendo (2024), *The #Reject Revolution: When Tweets Take to the Streets. The Story of 25 Million Posts Powering Kenya’s #RejectFinanceBill2024 protests*

²⁶ Bartolini (2024), *Trends in digital participation*

Tech Consumption Between Younger vs Older Generation: The Case of GenZs and Millennials

Many of today's youth take to digital spaces to develop their civic identities and express political stances in creative ways, claiming agency that may not be afforded to them in traditional civic spaces. The key difference between civic engagement by youth today and older, more traditional forms of action is the availability of digital technology, which provides a low-barrier-to-entry canvas for young people to create content that is potentially vastly scalable.²⁷

“ The youth are tech savvy, and also they choose it as an alternative way for them to represent their ideas and pass the message across. _ FGD2 Participant

A participant compared this with the older generation and mentioned,

“ The older generation, I think they choose, maybe a different means of communication for them to feel that they have communicated. Most of them, you will find them, they will have like their clubs, where they will go and associate. Maybe they have a, you know, a set of friends, where they will meet, like 10 friends, and they deliberate on issues, and they feel that they are, they have communicated amongst themselves. _ FGD2 Participant

The most striking example is the recent GenZ-led protests against the Finance Bill 2024, marking the first tech-driven revolution of its kind. This movement, characterized by its leaderless, tribeless, and united stance against government misconduct, demonstrated the powerful role technology can play in mobilizing and empowering citizens. It highlights the unconventional approach of the youth compared to the more traditional methods of older generations.

“ If these demonstrations were being organized in a different platform, maybe, you know, maybe somewhere where people meet, maybe the people on the streets would be a different generation, other than the GenZ and the Millennials. _ FGD2 Participant

Another participant added

“ The younger generation are most likely to use these emerging technologies because, one, you'll find they have the advantage of, first of all, in the digital era, getting the opportunity to be trained in these technologies, the usage of smartphones, how to, and computers, and also the older generation are affected in that they are less likely to adapt, since this is something that did not really come up so fast in their era. _ FGD2 Participant

This suggests that digital technologies for civic participation are proving more effective than traditional methods, and are becoming more preferred in modern society. The recent Gen-Z-led protests demonstrate how digitally-driven democracy can be both effective and inclusive, enabling participation from those who might not engage physically, through online protests as well as implementation of digital service delivery, although the effectiveness of digital service delivery is still evolving.

²⁷ Cho, Ph.D (2020), *Digital civic engagement by young people*

Navigating Adoption: Limitations, Concerns and Threats

AI is expected to play a greater role in the way that governments and public institutions operate, and the way in which citizens interact and participate in democratic processes. The hopes placed on AI are accompanied by a similarly high number of fears and concerns, mostly related to ethical issues, including human rights, and to the reliability (or security) of the technologies. By its present and future impact on social life and organization or by its reliance on young people to programme and fine-tune AI technologies, AI is very closely related to young people. Yet, there is relatively little research and information about how AI will impact on young people as citizens in transition to autonomy regarding their well-being, possibilities to participate and shape society and their access to rights, including social rights.²⁸

“ If you are someone who is creating these systems, you have to first control the bias, in a way that if you are using data, you make sure first your data is not biased. The sample size you’re using is well representative. _ FGD2 Participant

Another participant added

“ There are really pertinent issues, and the problem with that is also policies really lagging behind in most of these emerging technologies, as it usually does cause, you know, the innovation space is always very fast for policy to catch up to. _ FGD2 Participant

As the adoption of digital technologies is taking its full course, it is imperative to be cognizant of the emerging threats associated such as privacy and security concerns given the sensitivity of government data. While advocating for a tech-driven government, it is equally important to educate citizens, particularly the youth, on data privacy, security, and the ethical use of AI and other emerging technologies, especially as they develop innovative civic technologies with AI features.

“ The more we connect these devices to the Internet, the more we are prone to insecurity features in attacks. The more we connect these devices to the Internet, we also ensure that they come with security features. _ FGD2 Participant

28 Council of European Portal, Artificial Intelligence seminar 2020

“ Because with AI, there’s a lot of data collection. They also need to ensure that they have security measures in place, to ensure that the country’s population’s data is not being leaked or stolen or being sold off to other people or third party organizations, so they also need to invest in cybersecurity and ensure that the data is safe. _ FGD1 Participant

Another participant recommended

“ Efforts just have to be made to, you know, catch up to these things and seal the loopholes in areas like data sharing and also how to regulate the entire emerging technology space to protect, you know, citizens, businesses and everyone who is interacting with these technologies. _ FGD2 Participant

Opportunities For a Youth-Friendly and Inclusive Digital Democracy and Governance

Create opportunities to make civic technologies more accessible and youth-friendly

Recently, Kenyan youth have adopted innovative approaches at an unprecedented pace, marking a shift toward a digitally driven future. A notable example is the creation of the first-ever Finance Bill GPT, designed to explain a controversial government bill deemed “exploitative and unconstitutional” and to raise awareness amongst young people and the general public. Online mobilization has also gained traction, with crowdfunding campaigns on TikTok and X (formerly Twitter), crowdsourcing and public sharing of MPs’ phone numbers, and trending hashtags such as #RejectFinanceBill and #OccupyParliament. These efforts have significantly increased youth engagement in public affairs, laying a strong foundation for meaningful change and advancing justice by leveraging the full potential of digital technologies including emerging technologies.

“ *But the issue of corruption, the issue of the Finance Bill, just like, you know, was the tipping point of most Kenyans, and that is why we had that #RejectFinanceBill, like, it was just a way to vent, people are angry, they were, you know, everyone, every other corner you turn to, people are upset, they’re like this government, this government. And then the opportunity came, boom, we had it.* _ FGD1 Participant

“ *The youth have been active in taking advantage of the existing systems, and, you know, coming up with innovative ways to keep the government accountable, but also now democratize information from the Bills.* _ FGD2 participant

Youth in remote and rural communities face a significant digital divide, including low digital literacy, limited internet access, and unaffordable devices. This gap hinders their ability to leverage existing and emerging technologies and participate in digital democracy as effectively as their urban counterparts.

“ *Because when we’re talking about emerging technologies and how it can enhance civic engagement. The reality in the ground, when you look at most remote communities and most rural communities is that, there is no technology penetration, yet.* _ FGD1 participant

“ *The current President has said they want to work on, is the digital super highway to connect all the major rural areas. So I think that, would bring more young people online, and that way, you know, the government may change even the way they govern, you know, to implement more things under digital governance.* _ FGD2 participant

More tech-based civic education and capacity-building initiatives are needed for marginalized youth in rural areas, to empower them with needed skills to tackle similar issues within their local municipalities. This can be done by expanding digital infrastructure in these regions and reducing

internet costs, ensuring equitable access to technology.

“ The aspect of education and not just education of emerging technologies, because that is already an advanced version of technology. But even how to use the phone, how to use a computer, because you find that most cyber cafes in those rural places, you get that people pay money to have their KRA, to have their taxes filed, they pay money to even be downloaded for WhatsApp. So we have a long way to go when it comes to digital literacy because that’s the only way we can have these people involved. _ FGD1 Participant

Another participant added

“ The current online activities that has been taking place in Twitter, the reality is that, there’s so many communities that have not been involved, or are not even aware of what the heck is going on, on Twitter, or what the Finance Bill is about, because of that digital divide. _ FGD1 Participant

Invest in research and training in sectors relating to new and emerging technologies

Kenya, known as an early adopter of technology in Africa, has the opportunity to develop a new, efficient, and effective framework for engaging young people in governance. The government has successfully provided most services through the e-Citizen digital platform. In the aftermath of the COVID-19 pandemic, the world has increasingly embraced technology. Online meetings have become ubiquitous, and digital spaces have become essential for young people to advance their conversations.²⁹ The ongoing protests in Kenya have revealed that the pathway to AI development in Africa can be distinct from the traditional business and economic frameworks typically emphasized. These events have shown that AI can be harnessed to address societal issues by leveraging the unique strengths and unity within African communities.³⁰

“ First of all, they have to invest in that sector. And then another thing they can do is, because once they invest, people will now want to do this courses associated with, you know, emerging technologies, AI, robotics, and just tech in general. Because there’s no need for someone to go do a course. And then after four years, they are unemployed, because the sector is not, you know, it doesn’t have a market” Because in Kenya, it’s not really a demand. It’s not really vast. A lot of people don’t embrace it as much as the outside like in America, or in Asia and China. _ FGD1 Participant

“ As a digital campaigner, I’ve also used tools that are maybe, make it easy for people that are not so into the tech space, like Canva, which has also has helped me in graphic designing and maybe making beautiful presentations, and which has really pushed the agenda that maybe I was trying to get out there. _ FGD2 Participant

29 Agaki (2024), *Post-Gen Z led protests: engaging Kenyan youth in finding solutions*

30 Nyakundi & Orembo (2024), *Redefining AI for Africa: The role of Artificial Intelligence in Kenya’s grassroots movement*

Empower and Invest in Youth-Driven Civic Tech Innovation

The youth are emerging as leaders in civic tech innovation, paving the way for future generations. The AI tools used during the recent GenZ-led protests were created and designed by young techies, primarily to serve and engage their peers. This was further amplified by social media-facilitated activism and mobilization, which played a crucial role in the successful opposition to the Finance Bill 2024. Youth are continually pioneering innovative solutions in the digital space. The government must actively support and involve young people in national civic tech discussions. Their competence is evident from the innovative AI tools developed during recent protests, including the ICT Bill GPT, Social Health Insurance Fund GPT, and the Kenya Law Guide GPT used for navigating Kenyan law, understanding the constitution, and bills with ease.

A participant analyzed an ongoing tech-based solution (Notion) for tracking and auditing government promises

“Notion” which is also a very great technology, it’s like a notebook platform. It’s like a website, and so basically what they’ve done is they’ve consolidated promises that the current, you know, majority government, that is the UDA Government promised to do for Kenyans. So all those promises have been consolidated, then there are timelines, you know, and there’s a checkbox for whether or not it has been fulfilled, whether or not and the percentage of its fulfillment, and links to prove of where those people, you know, give those promises, whether it was in their manifesto, or it was on a video interview on, you know, mainstream media, television or newspaper. _ FGD1 Participant

Another participant added on another youth-developed GPT tool

I think over the weekend, there was also the creation of the Corrupt Politicians GPT, which is also a creation or an extension under the ChatGPT, and basically, what it does is that it has consolidated the various political scandals that current and previous politicians have been involved in, that includes embezzlement of public funds. So all you have to do is to ask, for example, who was involved in the “Arror and Kimwarer Dam Scandal”, and it will pull out all the names and how much money was embezzled and what cases in court which one was dropped. FGD1 Participant

Leverage on existing digital platforms for meaningful engagement

Previous engagements in select committees have not yielded transformative changes and have consumed resources that could have been utilized for other development projects. To cut costs, online engagement could suffice. Given that a majority of young people have been meeting online and raising resources to support those affected by the protests through social media hashtags, there is no reason why engagement with the government could not be conducted online.³¹ The social media platforms have changed the conversation in Kenya, and it is historic in the way that it has brought citizens up close with the authorities and given them a largely unfiltered forum to ask hard

³¹ Agaki (2024), *Post-Gen Z led protests: engaging Kenyan youth in finding solutions*

questions. Never before has a president exposed themselves to this and responded to members of the public in real time. The ‘X Space’ provided a platform for live, one-on-one engagement with the country’s leader, and enabled members of the public to speak truth to power.³²

“ Because a lot of us are online, keeping up with whatever’s happening, within the boundaries and around the world. _ FGD1 Participant

Enhance current tech-powered service delivery to better serve youth and the general population, while considering future applications of emerging technologies

Technology adoption in government service delivery plays a pivotal role in enhancing efficiency and effectiveness. Digital platforms, such as online portals and mobile applications, facilitate convenient access to government services, reducing processing times and administrative burden for citizens. Automation of services through technologies like robotic process automation (RPA) streamlines repetitive tasks, leading to faster service delivery and minimizing human errors, thereby improving the accuracy of service provision. AI-powered chatbots and virtual assistants can provide personalized support to citizens, addressing queries and guiding them through service processes in real-time, thereby reducing processing times and enhancing citizen satisfaction. Additionally, blockchain technology offers opportunities for secure and transparent transactions, enhancing the accuracy of service provision and fostering trust between governments and citizens.³³ Digital automation of routine huduma services could be a critical step toward achieving more efficient, accessible, and transparent public service delivery. It is recommended that the government invest in advanced technologies, including AI, to streamline processes, reduce wait times, and enhance overall citizen satisfaction, positioning Kenya at the forefront of innovative governance.

“ So there’s also automation which is coming to that place, which is nowadays referred to as a robotic process automation. I feel that is also a very much growing area and an area which is going to influence the way people interact with technology in the future. Robotic Process Automation, where we have these, you know, repetitive tasks which we do daily. Maybe it could be something like, you know, sending invoices or such a thing. _ FGD2 Participant

The aim behind the Huduma Center service delivery model is to simplify transaction processes through automated services. The Huduma Centers bring the government closer to the people by gathering front-line service providers from various ministries, departments, and agencies (MDAs) under one roof. The result is a changed service delivery experience and a significant accomplishment for the government of Kenya from a human resources as well as a digital government standpoint. But in Kenya, like many other developing countries, the vast majority of citizens lack access to online government services, increasing the risk of further marginalizing resource-poor groups. In response, the Government of Kenya has explored various means of using technology to foster inclusiveness and increase citizen participation in public service delivery.³⁴

32 Soy (2024), *Historic first as president takes on Kenya’s online army*

33 Owusu, *Impact of Technology Adoption on Government Service Delivery Efficiency in Ghana*, p.4-5

34 World Bank Group (2017) , *Citizen Service Centers in Kenya : the role of Huduma Centers in advancing citizen-centered service delivery in a context of devolution and digitization*, p.2

“ Because if they digitize, say, how people make payments for government services or around government services in general, it would be very easy for a lot of people, because a lot of times people go to City Hall to queue, and they take a lot of time there. If they do digitize it, it would save a lot of people a lot of time. They are trying to do it right now. I have seen some changes. However, it’s still a long week, but it’s getting there. So I can say that they have something rolling, but it’s just not there yet. _ FGD1 Participant

The Kenya National Digital Master Plan 2022-2032 highlights the government’s commitment to adopt AI in its various service delivery models, including the creation of shared public datasets and environments for AI training and testing.³⁵ The Huduma Kenya Digitization Plan outlines that Huduma Kenya will - introduce the Universal Agent (no door - no window) service delivery model - introduce new Huduma Kenya Service Delivery Programme (HKSDP) platforms and revamp existing HKSDP platforms. For example, the Universal Agent (no door - no window) service delivery model will be supported by technologies, service aspects, and enablers, amongst them - “Huduma Digital Assistant” - an automated dialoguing chatbot to be implemented through the less expensive rule-based chatbots and then later the AI chatbots, “the Huduma Avatar” - a citizen digital user profile for accessing government services within the HKSDP platforms, “Customer Relationship Management System (CRM)”, the “Centralized Biometrics”, “Huduma Data Predictive Analytics (Data Insights)” - an analytic model that will identify the likelihood of future outcomes based on customer historical and behavior data and the “New Huduma Kenya Service Delivery Platforms” which will feature self-service kiosks, virtual huduma centers, user-tutorial portal, huduma on wheels, sub-county huduma centers, huduma mini-centers, huduma global and huduma mlangoni.³⁶

35 The Kenya National Digital Master Plan 2022-2032, p. 72

36 Huduma Kenya Digitization Plan (2023/2024-2025/2026), p. 23-28

Conclusion

In the contemporary landscape of democratic governance, Artificial Intelligence (AI) stands out as a transformative force with the potential to revolutionize citizen participation and engagement in the near future. The integration of AI-driven tools offers governments the opportunity to enhance information accessibility, streamline communication channels, and personalize civic experiences for citizens. AI can be employed in applications like chatbots, enabling them to analyze user input, understand context, and provide more personalized and contextually relevant responses, thereby enhancing the user experience in virtual interactions. Additionally, it can be utilized in sentiment analysis tools designed to analyze and determine the sentiment expressed in political texts, including news articles, social media posts, speeches, and public opinions, thereby offering policymakers real-time insights and proactive issue resolution, with the formulation or adjustment of policies based on citizen preferences.³⁷

This study has highlighted the significant potential of youth in leveraging digital technologies to enhance democratic and governance processes, while also providing a deeper understanding of the powerful role of digital technologies including emerging technologies like AI, in enhancing and facilitating effective citizen participation. The GenZ-led protests in Kenya marked a historic moment, demonstrating the role of digital technologies in the future of government and public affairs. The discussions and insights gained from this study have offered new perspectives from the Kenyan youth, informing ongoing discussions about integrating new and emerging technologies into democracy and public service delivery in Kenya.

³⁷ Bartolini (2024), *Trends in digital participation*

References

(n.d.). Retrieved from Chapter II : Historical background of e-Governance: http://dlkhsou.inflibnet.ac.in/bitstream/123456789/758/11/11_chapter2.pdf

African Union . (n.d.). THE DIGITAL TRANSFORMATION STRATEGY FOR AFRICA (2020-2030). Addis Ababa,: African Union .

Agaki, S. (2024, June 30). Post-Gen Z Led Protests: Engaging Kenyan Youth in Finding Solutions. Retrieved from Medium: <https://medium.com/@shadrackagaki/post-gen-z-led-protests-engaging-kenyan-youth-in-finding-solutions-030017258b23>

Bartolini, M. (2024). Trends in Digital Participation. Retrieved from Salto: Participation and Information: <https://participationpool.eu/resource/trends-in-digital-participation/>

Candela, M. G.-C. (2024, April 30). The Rise of Digital Governance: Embracing Technology for the Development of Public Services. Retrieved from Plug and Play: <https://www.plugandplaytechcenter.com/resources/rise-digital-governance-embracing-technology-development-public-services/>

Cho, Ph.D, A. (2020). Digital civic engagement by young people. New York : UNICEF.

Council of Europe Portal . (n.d.). Artificial Intelligence. Retrieved from Council of Europe Portal Youth: <https://www.coe.int/en/web/youth/artificial-intelligence>

Davanne, C. (2019, August 28). How Kenya is empowering youth to participate in government budgeting. Retrieved from World Bank Blogs : <https://blogs.worldbank.org/en/governance/how-kenya-empowering-youth-participate-government-budgeting>

Geneva Graduate Institute. (2024, January 10). Stories of the future: Youth Shaping the Role of Artificial Intelligence in Democracy. Retrieved from Geneva Graduate Institute: <https://www.graduateinstitute.ch/SOF>

Kanstrup, C. (n.d.). Youth engagement through digital democracy . Retrieved from We Solve : <https://wesolve.app/youth-engagement-through-digital-democracy/>

Kenya Law. (n.d.). Integrating accountability mechanisms in local government. Retrieved from Kenya Law: <https://kenyalaw.org/kl/index.php?id=1898>

Kinsbergen, D. (2023). Let's talk about you(th) : A study on youth engagement in Kenya. Radboud University.

Lusigi, A. (2023, July 15). Positioning Africa's Youth to Win by Harnessing AI for Development . Retrieved from UNDP Ghana : <https://www.undp.org/ghana/blog/positioning-africas-youth-win-harnessing-ai-development>

Ministry of Information, Communication and the Digital Economy. (n.d.). Draft National Access to Information Policy. Nairobi: Ministry of Information, Communication and the Digital Economy.

Ministry of Public Service, Gender and Affirmative Action, State Department for Public Service, Huduma Kenya Secretariat. (2023). Huduma Kenya Digitization Plan - 2023/2024-2025/2026. Nairobi: Republic of Kenya.

Ndungu, T. (2020, February 21). Citizen Digital. Retrieved from Out of 47.6 million Kenyans, 35.7 million are under the age of 35: <https://www.citizen.digital/news/out-of-47-6-million-kenyans-35-7-million-are-under-the-age-of-35-323822>

Nendo. (2024, July 8). The #Reject Revolution: When Tweets Take to the Streets. The Story of 25 Million Posts Powering Kenya's #RejectFinanceBill2024 protests". Retrieved from Nendo: <https://www.nendo.co.ke/post/the-reject-revolution-kenyan-rejectfinancebill2024-protests>

Nyakundi, D. K., & Orembo, L. (2024, July 30). Redefining AI for Africa: The Role of Artificial Intelligence in Kenya's Grassroots Movement. Retrieved from Tech Policy: <https://www.techpolicy.press/redefining-ai-for-africa-the-role-of-artificial-intelligence-in-kenyas-grassroots-movement/>

Ochieng , G. (2023, September 29). Leveraging Technology To Advance Access To Information In Kenya. Retrieved from ICJ Kenya : <https://icj-kenya.org/news/opinion-leveraging-technology-to-advance-access-to-information-in-kenya/>

Owusu, E. (2024). Impact of Technology Adoption on Government Service. American Journal of Public Policy and Administration.

Peixoto, T. C., Canuto, O., & Jordan, L. (2024). AI and the Future of Government: Unexpected Effects and Critical Challenges. Policy Center for the New South.

Pollicy. (2019, July 23). Civic Participation: How to Use Technology to Participate. Retrieved from Medium: <https://medium.com/pollicy/civic-participation-how-to-use-technology-to-participate-cf66c8e22c6d>

Soy, A. (2024, July 5). Historic first as president takes on Kenya's online army. Retrieved from BBC: <https://www.bbc.com/news/articles/cv2g14dy4dlo>

Susnjara, S., & Smalley, I. (2024, February 14). What is cloud computing. Retrieved from IBM : <https://www.ibm.com/topics/cloud-computing>

The Kenya National Digital Master Plan. (n.d.). The Kenya National Digital Master Plan 2022-2032. Nairobi: Ministry of ICT, Innovation.

United Nations Department of Economic and Social Affairs. (2023). Promoting Youth Participation in Decision-Making and Public Service Delivery through Harnessing Digital Technologies. United Nations Department of Economic and Social Affairs.

USAID. (n.d.). Country Overview . Retrieved from USAID: <https://www.usaid.gov/kenya>

Voice. (2022, February 22). African Youth transforming digital and Political spaces. Retrieved from Voice : <https://voice.global/blog/african-youth-transforming-digital-and-political-spaces/>

World Bank Group. (2017). Citizen Service Centers in Kenya : the role of Huduma Centers in advancing citizen-centered service delivery in a context of devolution and digitization. World Bank Group.

Wyld, D. C. (2009). Moving to the Cloud: An Introduction to Cloud Computing in Government. IBM Center for The Business of Government.

