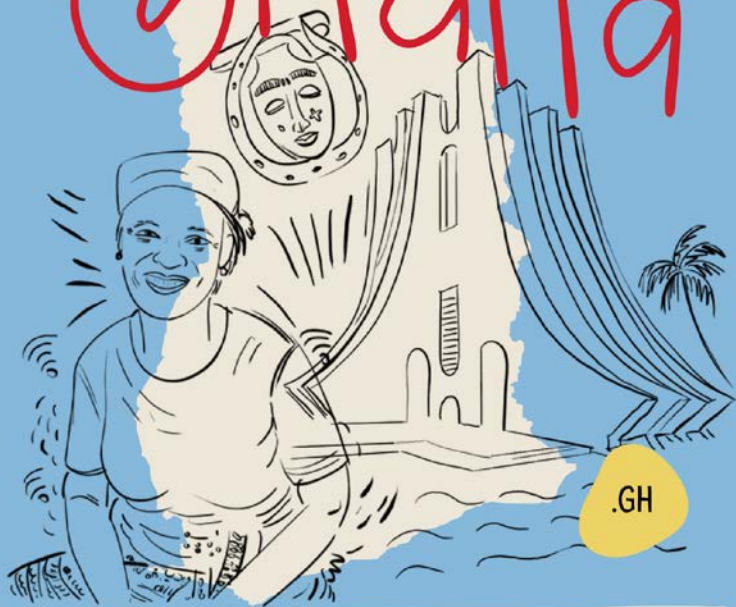




Ghana



STABILITY AND INNOVATION, WOMEN
ENTREPRENEURS RISE WITH MOBILE MONEY

STABILITY AND INNOVATION: WOMEN ENTREPRENEURS RISE WITH MOBILE MONEY

Ghana's digital landscape is dynamic, marked by innovative start-ups like Nandimobile and SnooCode. Despite government involvement, private sector success prevails. Challenges include infrastructural setbacks and skill shortages. Digital content creation thrives, but reliance on foreign content persists. Recommendations include holistic digital policies, literacy campaigns, content stimulation, platform education, and infrastructure enhancement.

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How would you describe the digital trends in your country, especially regarding digital social impact ventures?

Vibrant and chaotic are some of the words used to describe Ghana's exciting and yet challenging technology scene.

Ideas, creativity and talent have created some of Africa's most innovative and profitable start-ups. Ghanaian innovators have featured among the global winners in almost every iteration of the WSA global event and WSA youth events since 2009.

The areas of decent work and economic growth, zero hunger, industry innovation and infrastructure have the greatest concentration of winners. Many WSA winners from Ghana are multi-award-winning solutions. Notables are Nandimobile, which was nurtured in the Meltwater incubator in Accra. It simplifies B2C communications where there is no internet; *SnooCode*¹, amazing for the accuracy and simplicity of its addressing system, continues on its award-winning trajectory across Africa; *Afrocomix*² gives African creators vital exposure and opportunities to monetise content.

*Farmerline*³, winner of both WSA global and WSA youth awards, supports a climate-friendly and entrepreneurial approach to small-scale farming. It is already working with over a million farmers in 33 countries and continues to attract major investment in its platform, Mergdata. Inclusion is also an important theme. The 2024 winner, *Hunu*, deals with children and families with autism. *Products Bloom Impact* and *NaaSika*⁴ work with previously unbanked entrepreneurs to attract investment and grow their businesses.

Global venture capital is actively monitoring opportunities for investment. Social impact ventures also receive funding from UN agencies and forward-looking bilateral partners such as GTZ. Finance, health, agriculture, and entertainment are among the sectors that receive the greatest interest. Unfortunately, there

1 Read more at <https://snoocode.com>

2 Read more at <http://letiararts.com/afrocomix/>

3 Official website: <https://farmerline.co>

4 Official website: <https://www.naasika.com>

is much duplication of effort as stakeholders do not always analyse what went wrong with past projects or even explore whether or not something similar has been done before and what could have been done to make it work better.

Despite these hiccups, the gradual growth in the use and adoption of digital technologies, and in particular mobile internet, over the past two decades continues. In line with global trends, the COVID pandemic has given a strong impetus to digital growth. There is fast growth in the gig economy and remote working, along with a renewed interest in education solutions. Increasing numbers of young people in the informal sector are engaging in locally adapted forms of e-business, using a mix of online channels and mobile money.

Ghana's urban Gen Z'ers are into competitive content creation, exploiting major platforms, including TikTok, Instagram, and Facebook, to make money and boost their personal brands. The use of AI tools such as ChatGPT and other AI text and image creation tools is becoming commonplace. Women's role and participation in the digital ecosystem are not well documented, but it is clear that the number of female tech entrepreneurs is rising. Perhaps most fascinating is the use of social media marketing and mobile money interoperability by illiterate informal entrepreneurs to drive business throughout the country.

While the government has made major investments in policy, infrastructure, legal frameworks and regulation, as well as the key government institutions that support digital growth, the general perception within the private sector, academia, and civil society is that success happens when the government is not involved. This is probably due to the government's 'cash cow' mentality as new taxes and increases in existing taxes relating to the digital space occur regularly. All other stakeholders see this as a stifling of digital growth. There are, however,

considerable opportunities for the government to intervene to eliminate the widening digital divide between the educated and illiterate, urban and rural, and young and old when it comes to the use of mobile solutions.

How would you describe recent digital shifts in your country?

Content: More widespread use of technologies, including new AI tools, is being made for content creation and e-commerce. This has created new dependencies regarding approaches to marketing. The use of local languages is growing, but currently, only very basic NLP tools exist to support the translation of key government documents into local languages.

Digital as a catalyst for economic growth: Gradually, a shift in understanding how essential digital is to the overall growth of the economy is taking place. There is more debate around the issues.

Taxation and economic growth: Resistance is growing to persistent attempts by the government to ‘milk’ the sector in terms of taxes linked to usage. This is based on the increasing understanding of how essential digital is to the overall growth of the economy among the general public. However, digital issues outside of burdensome taxes, for example, the talk tax (Communication Service Tax) introduced in 2008 (Act 754), CST(Amendment) Act, 2013 (Act 864), and most recently, the E-levy introduced in 2022, are not even minor election issues. In the case of the E-levy, many voted with their feet and stopped using the services. Using monthly time series data, Paul Takyi of KNUST (Kwame Nkrumah University of Science and Technology) explains that the value of mobile money transactions, the number of mobile money transactions, and the value of mobile money transactions from mobile money interoperability decreased by about 47 per cent, 24 per cent,

and 49 per cent, respectively.⁵ These adverse effects diminish over time, but the fact is that growth has been stifled, and there was a major shortfall in anticipated increased revenue streams for the government. Therefore, it is not always clear whether the key decision-makers and political leadership have an in-depth understanding of how to shape policy to promote digital growth.

Skills: Remote working has resulted in a number of IT project managers and programmers working for companies based outside Ghana. This has further exacerbated skill shortages in these areas.

Academics: Fields such as computational linguistics are not yet established. There are difficulties in getting people to cross-domain silos within universities, for example, business students working with computer science students to solve problems, despite the clear need for interdisciplinary training.

Access to expertise: More attention is being given to getting more women trained in the creation of digital solutions as well as in their use and evaluation. There are a number of government programs and perhaps even more programs being run by civil society organisations. A good example is *MmaaTech*, which has a hub located in Apemanim in the Ashanti Region, demonstrating that not everything happens only in Accra.

Digital Public Infrastructure and Digital Public Goods: The move away from proprietary solutions is already underway among start-ups. These have adopted open-source solutions to rapidly innovate and reduce their clients' cost of use. Now, thanks to the Digital Public Goods Alliance (DPGA), the government is exploring how to collaborate and use open-source software, standards and models to deliver public services. The DPGA on

⁵ Takyi, P. O. (2024). The impact of electronic levy on mobile money transactions: lessons from Ghana. *Policy Studies*, 1-17.

Digital Public Infrastructure promotes a “combination of (i) networked open technology standards built for public interest, (ii) enabling governance, and (iii) a community of innovative and competitive market players working to drive innovation, especially across public programmes.”⁶

Mobile Money: The use of mobile money is growing, albeit not at the rates that were originally projected before the introduction of new taxes. Everyone throughout the country uses mobile money in both formal and non-formal settings. It is a great leveller, and initiatives such as Mobile Money Interoperability have made it easy to use.

Funerals and IT use: Drones and streaming allow for remote presence. The organisation of funerals is a good illustration of the increased use of digital solutions. Funerals are the most important social event in Ghana, and they often last for days and sometimes weeks. Drones are now regularly and extensively used at funerals to record the events and support live streaming to those in the Ghanaian diaspora who could not attend the event. Funeral brochures are mostly distributed using QR codes. Funeral donations are made using mobile money and acknowledged using text and WhatsApp messaging.

Describe and provide insight into whether your country is democratic or the internet is breaking democracy in your body politic.

Ghana is recognised for its democratic stability and the protections provided for freedom of speech and expression under its constitution. Most people would agree that the internet has given a greater voice to Ghana’s citizens. The improvements in voice technology mean that even those who cannot read can both access and create content which is produced in local

⁶ Digital public infrastructure. (2023). UNDP. <https://www.undp.org/digital/digital-public-infrastructure#%3A%7E%3Atext%3DDigital>

languages. Individuals and civil society organisations openly question government policy and decision-making.

The provisions of new and existing legislation are intensely debated. Organising people to collectively address issues has never been easier. Feedback and research on policy impact are facilitated by solutions that rely on the ubiquity of mobile internet. There is a perception that despite this level of active engagement, efforts to hold the government accountable are not yielding the expected results.

It is also clear that social media is fueling the polarisation of the political space with the rapid circulation of fake news, misinformation and disinformation. All of these will be intensified by the use of easily available AI tools. Online gender-based violence, using well-known tactics employed globally, discourages women from standing for office. Politicians and political parties are now investing heavily in social media channels and recruiting influencers. This is in addition to their ownership of traditional media, such as newspapers, radio stations and television. There is also evidence that ‘Cambridge Analytica’ clone companies have been operating in the electoral space. These have been hired by political parties to conduct sentiment analysis.⁷ Despite the substantial fees demanded by these companies, their services seem to be widespread and increasingly used across Africa. There are suspicions of foreign interference using similar techniques.

More research needs to be done on whether or not internet-enabled behaviour manipulation using profiling and data mining is a real factor in our elections. It should also be noted that while major platform companies have announced that they

⁷ Election leaks: Did Cambridge Analytica play NDC and NPP ahead of 2016 polls? (2020, February 28). GhanaWeb. <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Election-leaks-Did-Cambridge-Analytica-play-NDC-and-NPP-ahead-of-2016-polls-880060#:~:text=It%20is%20emerging%20that%20disgraced,of%20winning%20the%202016%20elections.>

are putting in measures to support free and fair elections in Europe by monitoring the use of AI in the election space, such initiatives have yet to be announced for Africa.

Digital Tools are considered to be empowering. Can you describe which sector in your country has been most helped by digital?

The banking of the ‘unbanked’ through the use of mobile money solutions is the single most important tool for empowerment brought about by developments in the digital ecosystem. It has boosted earnings, as for the first time, informal sector entrepreneurs can expand their markets and secure their earnings using e-commerce platforms as well as ad hoc payment channels. It links it to the burgeoning gig economy as *Bolt*, *Yango*, *Uber*, and myriad motorbike delivery solutions abound.

Mobile Money Interoperability was championed by Ghana’s Vice-President Mahamudu Bawumia, and this allows for the seamless interoperability between mobile money solutions provided by different telecom operators.

Initiatives such as the *Ghana Card* (national digital ID) have facilitated the use of e-government solutions, including payment and use of government services.

Mobile money use is widespread even in rural areas, and it has strengthened local extended family networks by making it easier to support the schooling of relatives and other social obligations that employed family members are expected to fulfil. At the same time, family ties may suffer from the reduced need for face-to-face interactions.

Much of the informal sector business is driven by women entrepreneurs who have enthusiastically taken up the use of mobile money. Applications such as *Glovo* make it possible for networks of small-scale caterers to provide food services in urban areas and get paid using mobile money.

The financial sector is a clear winner when it comes to digital transformation. At the same time, the true power behind digital tools, notably the BigTech platforms, are those who benefit the most from the increased use of digital as they hold and mine users' data for free and do not pay any taxes on their earnings from local operations.

What are the biggest challenges in your country in terms of digital transformation?

Infrastructure: This text is being written during the 'Great Internet Shutdown of March 2024', during which all internet services in Ghana were disrupted due to damage to the submarine cables carrying data to and from the country. It seems appropriate redundancy measures were not in place. In addition to these more macro concerns, while internet access is relatively low in cost in Ghana compared to other African countries, it is still high relative to levels of disposable income. This impacts usage levels.

Literacy and skills: The predominance of the use of English on the internet means that current levels of illiteracy in English hold back its use. Although schooling is conducted for the most part in English, the Ghana Statistical Service (2022) estimated that over 8 million persons over the age of six were functionally illiterate. The majority of these are women. This has a serious impact on the use of e-government services. These are often yet to incorporate audio in local languages. Topflight developers and project managers are happy that they can stay in Ghana and work abroad, but this means that local start-ups and even mid-range companies struggle to retain staff. The competition for skills is intense and hampers growth. It has made smaller companies easy targets for acquisition by foreign venture capital.

At the academic level, curricula are not keeping up with current technologies. Fields such as computational linguistics, the key

to the deployment of language models, are not yet established. There are difficulties in getting people to cross-domain silos within universities. For example, business students work with computer science students to solve problems despite the clear need for interdisciplinary training. At varying levels, this is the case in most countries, but in Ghana, the situation is compounded by the lack of emphasis on practical project skills and professional certifications.

At the user level, there is an urgent need for digital literacy skills training. Citizens need to know how to recognise standard internet fraud, disinformation and misinformation in the age of artificial intelligence. In particular, parents need to be educated on how best to protect their children when they are online. In rural areas, many parents are totally unaware that their children share smartphones. Unfortunately, initiatives in this area have been slow to take off.

Policy and Leadership: The drive to digital transformation requires a whole of government approach and clear joint national agenda setting. This has yet to happen despite several important initiatives being spearheaded by the current Vice-President Mahamudu Bawumia.

Digital Divides: Even though Mobile Money is widely used throughout Ghana, more men than women own and manage phones. The cost of Internet access is the same across Ghana, but the quality of service tends to be better in urban vs rural areas.

In the drive to put more government services online, the importance of special initiatives to bring Ghana's older citizens (BBCs - Born Before Computers) online cannot be overemphasised. Without such programmes, they become easy targets for fraud. Women are still being discouraged from seeking careers in the digital space. Smart girls are encouraged to work in medicine, law and education. Changing this will

require a lot of outreach to parents.

Does your country consume digital content more than it produces, or vice versa?

Digital platforms such as TikTok, YouTube, WhatsApp and Instagram have given impetus to local content creation that permeates all aspects of life in Ghana. However, the curation of that content and the algorithms that determine what will attract the most views remain under the control of BigTech. People complain about ‘unsolicited nonsense’ that gets pushed into their feeds.

Yet many Ghanaian vloggers, bloggers, and other influencers are achieving global impact. Ghana is home to the man hailed by many as Africa’s most influential YouTuber.

Ameyaw Debrah is Ghana’s most influential influencer. He has 1.7 million followers on X, 800,000 on Facebook and 700,000 on Instagram. Wode Maya (@wodemaya), aka Kobina Ackon, was also a winner at the WSA national level. His campaign ‘Africa to the World’ promotes Pan-Africanism and works to negate Western stereotypes of the continent. In February 2022, he won the Online Creator Of The Year at the Entertainment Achievement Awards. He has over 208 million overall YouTube views and currently has 1.5 million subscribers in total.⁸

Another influential creator is Eyrām Tawia of Leti Arts. He is recognised for driving the African gaming industry forward and adopting a pan-African approach to telling Africa’s stories. Away from the exciting influencer space, most traditional media

⁸ Yuen. (2024, February 21). Meet Wode Maya, One of the most influential African YouTubers. The HotJem; Everything Pop Culture and Trends for Today’s Modern African. <https://thehotjem.com/meet-wode-maya-one-of-the-most-influential-african-youtubers/>

companies have a strong online presence. Despite the diverse and pluralistic national media ecosystem, the fact remains that citizens consume more foreign content than local content overall. This has serious implications in terms of agenda setting.

English is the dominant language of the internet and Ghana's official language. To date, there has not been sufficient progress in terms of using developments in Artificial Intelligence, including Natural Language Technologies, to translate key government documents into the main local languages.

Can you recommend how your country should make digital policies an equaliser?

Further to the above considerations, four more issues deserve to be recommended:

- Adopt a whole government approach to digital transformation and a national awareness campaign on acquiring digital literacy as well as higher-end computer skills.
- Stimulus packages to encourage content creation in local languages as well as English that support productive enterprise, translation of key government documentation and support of e-services.
- Engagement and education around platforms and data.
- Infrastructure investments led by the government to improve redundancy options for international traffic and improve last-mile connectivity.

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Dorothy Gordon is a specialist in digital technologies for development. She has decades of leadership in this field, working mainly in Africa and Asia on diverse projects and programmes to support greater engagement and action to achieve the SDGs while exploring the impact of technology on society. She has just given up the Chair of the UNESCO Information for All Programme but continues as a board member of the UNESCO Institute for Information Technologies in Education. In 2003, Ms Gordon was the founding director general of the Ghana-India Kofi Annan Centre of Excellence in ICT (AITI-KACE) which she left in 2016. She is a former board member of Creative Commons and also served on the board of Linux Professional Institute. She also supports startups and purpose-driven innovation as a Board Member and National Expert for WSA. Her extensive experience within the United Nations is complemented by work in the private sector and with civil society organisations globally. She is a pan-Africanist and a feminist. Her key areas of interest are gender and technology, technology in education, and the future of technology, including artificial intelligence, security as well as business and tech innovation. She works as a consultant, advisor and volunteer.