THE 4TH INNOVATION AND TECH FORUM

Report Highlights

"The Digital Tanzania we need;
what will it take to realize it?"

Prepared & Presented by:

Media Convergency | February 2023

The 4th Edition of the Innovation and Tech forum was organized by Media Convergency in partnership with the United Nations Development Programme (UNDP) through the Funguo Innovation Programme.

All related content (video recordings, articles and pictures) can be found across social media (Twitter, LinkedIn, Facebook, Instagram and YouTube) through hashtags of #InnoTechForum.

- To access the full recording of the convening visit - bit.ly/4th-InnoTechForum-Stream.
- To access all reports of the past forum convenings you can visit - https://linktr.ee/InnoTechForum

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ACKNOWLEDGEMENTS

Through the past four forums convenings, we have achieved remarkable milestones that are propelling the ecosystem towards greater heights. Media Convergency's unwavering commitment to the cause of Digital Transformation in Tanzania is reinforced by the strength and momentum we have garnered. We are ecstatic to be a crucial part of this movement, and every accomplishment we achieve no matter how small is a building brick towards the Digital Tanzania revolution in this fourth industrial revolution.

On behalf of the Media Convergency team, we would like to take this opportunity to express our sincerest gratitude to everyone who had been part and contributed to the success of the 4th Innovation and Tech Forum which was held on August 19th, 2022. The theme of "The Digital Tanzania We Need – What will it Take to Realize it?" has been a timely and relevant topic for our country's development.

The enormous promise of the digital revolution for Tanzanian development cannot be overstated, and it is through forums such as this that we are able to capitalize on the rise of digital to propel our collective progress in all areas. The participation of experts from Tanzania's ecosystem, including Academicians, Civil Society Organizations (CSOs), the Private Sector, Technocrats, Data Analysts, and others, has greatly enriched the discussions and provided valuable insights for policymakers and other stakeholders.

We express special gratitude to the Ministry of Information, Communication, and Information Technology in general and the Permanent Secretary Dr. Jim Yonazi in particular – for their consistent support and participation at the Innovation and Tech Forum. We also, extend our special thanks to the United Nations Development Programme (UNDP)'s Funguo Innovation Program for their support, to the Tanzania Commission for Science and Technology (COSTECH) for being our custodian under the leadership of Dr. Amos Nungu and; last but not least, special thanks to all the experts and gurus, always ready to take up the mic and share unique, well informed insights and perspectives from respective fields.

It is our hope that this forum continuously be an avenue for networking and learning from one another. The discussions and exchanges that took place will undoubtedly inform and enhance ongoing initiatives, and provide solutions to existing challenges.

Once again, thank you to everyone who has contributed to the success of this important event.

Asha D. Abinallah

Forum Coordinator
CEO, Media Convergency

February, 2023

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ABBREVIATIONS

APNIG	African Parliamentary Network on Internet Governance
COSTECH	Tanzania Commission for Science and Technology
CSOs	Civil Society Organisations
GDP	Gross Domestic Product
DG	Director General
ICT	Information, Communication, and Technology
ISACA	Information Systems Audit and Control Association
ITU	International Telecommunication Union
NBS	National Bureau of Statistics
NGOs	Non- Governmental Organizations
SAIS	Southern African Innovation Support Programme
TANESCO	Tanzania Electrical Supply Company Limited
UCSAF	Universal Communication and Service Fund
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
2 G	Second-generation cellular network
3 G	Third-generation cellular network

ABOUT THE 4TH
INNOVATION AND TECH FORUM

The fourth Innovation and Tech forum brought together emerging innovators and tech champions, seasoned industry players, policy makers and interested stakeholders in what ended up to being a very fruitful and impactful discussion. To get a scope of where we are and where we are going, a discussion on "The Digital Tanzania We Need - What will it Take to Realize it?" was timely.

It is now widely accepted that the digital economy is a key driver of Tanzania's future growth and prosperity. We have witnessed tremendous developments in the digital economy enabling infrastructures along with a competitive telecommunication market, and a significant progress in improving connectivity and access to digital financial services over the past decade. The Government of Tanzania is seeking to further promote digital development as a key enabler of economic growth and industrialization, job creation, service delivery, and public service delivery efficiency. The current Five-Year Development Plan (FYDP III) recognizes that the digital economy creates "many new economic opportunities" and "paves the way for Tanzania to leverage digitization in growing her digital economy pie and, most importantly, in accelerating economic transformation" with the ICT sector playing a leading role in the "fourth industrial revolution (4IR)".

Notable strides have been made in the development of digital public services, their applications and delivery capacity in recent years, accompanied by various ambitious plans and initiatives currently in place however, significant gaps and opportunities for leapfrogging still remain. Tanzania is yet to fulfill its potential for harnessing digital communications and technologies for economic growth, job creation, and service delivery. This forum gave an opportunity to the ecosystem to revisit and discuss the major developments that the innovation and tech space has registered so far, to learn more about the current initiatives by the Government and other players, and also look at the untapped opportunities and existing challenges. The intent of enhancing the implementation of ongoing initiatives and propose solutions to existing challenges for the policy makers and other stakeholders to take into account while shaping their interventions was met. The fourth Innovation and Tech forum provided an opportunity to explore the kind of "Digital Tanzania" we need, and the best approaches and institutional and policy frameworks that will get us there.

Male Representation
61.98%
The event had a number of 75 male among the 121 participants that attended the session.

Female Representation
38.02%
The event had a number of 46 female among the 121 participants that attended the session.

Attendance was at a total of 239 participants both online (118 netizens) and offline (121 participants), while the gender integration only considers the physical participation at the event, the online participants of 118 participants can not be integrated in gender.

Digital Visibility
Five Days of the #InnoTechForum

The forum was a high-breed event. Participation was both online and offline. While we had a physical attendance of 121 people, we had a total of 118 online attendance during the livestream of the event, thus making the total direct participation of 239 participants.

Total Messages
2.1K

Reach
8M

Impressions
236M

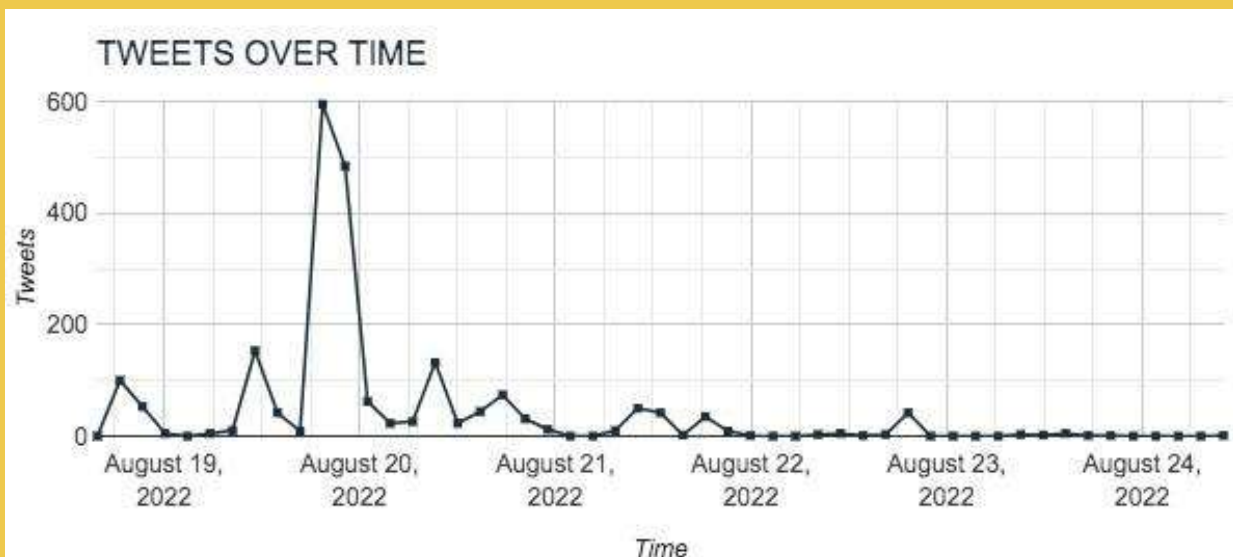| DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Announcing InnoTech Forum registration, Speakers and Chief Guests	Day of the InnoTech Forum event	One day after InnoTech Forum event – recap	Two days after InnoTech Forum event – recap	Three days after InnoTech Forum event – recap

TWEETS OVER TIME

Some notable
Highlights from the 4th forum

The call for collaborations was emphasized by all participants at the fourth Innovation and Tech Forum. They recognized that in order to drive progress and achieve the goal of a fully digitized Tanzania, it is crucial for all players in the innovation and technology space to work together. Collaboration is necessary to overcome the challenges and maximize the opportunities presented by digitization. The participants emphasized that the public sector, private sector, and international development partners must join forces and share their knowledge, resources, and experiences to drive digital transformation in the country.

A strong emphasis on the importance of cybersecurity awareness for both individuals and organizations. In today's digital age, protecting personal and sensitive information is crucial, and the forum emphasized the need for individuals and organizations to be proactive in protecting themselves against cyber threats.

It was stressed on the importance of parliamentarians being familiar with the opportunities and challenges presented by digitization, and having the knowledge and understanding to make informed decisions that support the development of a fully digitized Tanzania. By being aware of the potential benefits and drawbacks of digitization, parliamentarians can ensure that policies and regulations are in place to support the growth of digital technologies while also protecting the rights and interests of citizens.

Connectivity and accessibility for those in rural areas was emphasised. UCSAF stressed the importance of extending connectivity to rural areas, which have traditionally been left behind in the digital revolution. a call for collaboration with the private Sector was emphasized and stated as the best way of finding solutions to challenges such as lack of infrastructure and limited resources. By ensuring that those in rural areas have access to digital technologies, they can participate fully in the digital economy, access essential services, and engage with the rest of the world.

Non-profit organizations were emphasized to use technology and available data to create human-centered solutions that address real-world problems. The focus should be on a problem-driven iterative adaptation approach, which concentrates on the problem itself and not just finding a solution. By utilizing technology and data in a creative and effective way, non-profit organizations can create sustainable and impactful solutions that benefit the communities they serve.

A call for action was made to all stakeholders to participate in identifying challenges and supporting startups in finding funding and the best operational models to overcome these challenges. It was emphasized on the significance of drawing upon their experiences and expertise in solving the problems at hand. By working together and leveraging the diverse perspectives of all stakeholders, it is possible to create effective solutions that benefit startups and the communities they serve. The call to action highlights the importance of collaboration and knowledge-sharing in fostering innovation and driving positive change.

It was emphasized the importance of telecommunication companies stepping up to address the digital divide and ensuring that everyone has equal access to the benefits of technology. By leveraging their technology and expertise, telecommunication companies have the power to bridge the gap between the digitally connected and disconnected, and to empower individuals and communities to participate fully in the digital economy.

Expected Results from the 4th Innovation & Tech Forum

Mr. Joseph Manirakiza, Progamme Manager – UNDP's Funguo Innovative Program as the Lead Facilitator for the "Firesied Chat"

- A better understanding of the current Tanzania digital landscape, challenges, and opportunities is to provide participants with a comprehensive understanding of the current state of digital technologies in Tanzania. This includes an overview of the existing digital infrastructure, the level of digital literacy among the population, the regulatory environment for digital technologies, and the challenges and opportunities that exist within the digital space.

- A better understanding of the ongoing initiatives to drive digital transformation is to provide participants with a comprehensive overview of the various initiatives and efforts currently underway in Tanzania to promote the adoption of digital technologies across different sectors of the economy. This includes initiatives by both public and private sector players, such as government policies and programs, investment in digital infrastructure, innovations by startups and established companies in the tech space, and other initiatives aimed at improving digital literacy and skills development.

- Contributions from participants on various areas that need improvement, such as policies and regulations, digital infrastructure, digital skills development, and adoption of digital technologies in different sectors of the economy

PART ONE

Vote of Thanks and the Key Note Speech

VOTE OF THANKS

Mr. Sergio Valdini,
Deputy Resident Representative
United Nations Development
Programme (UNDP)

Before I get into this crucial theme and comment on all the wonderful and insightful discussions that have occurred here today, I would like to acknowledge the work that has been done by Media Convergency and our team for their hard work in organizing this fantastic event. Congratulations to the Media Convergency Team under Asha's leadership for bringing this forum this far, and thanks to COSTECH for always being ready to support such initiatives.

UNDP has been supporting this event from its inception because we understand the importance of having a platform for this lively debate and conversation on critical issues of national interest. We are committed to continuing to support this and similar initiatives to provide an avenue for the wider public to debate and influence some key initiatives and policy issues that are essential for the growth of the Innovation and the Technology ecosystem in Tanzania. UNDP through the Funguo Innovation Programme has been supporting similar platforms like the Innovation Week, the Tanzania Youth Digital Summit that has just ended today, the Sahara Sparks and the Annual ICT Conference.

I have been paying close attention to all the discussions that have taken place throughout the evening. What I can say is that Tanzania is on the right track when it comes to digital transformation. It is encouraging to see the Government of Tanzania and its agencies at the forefront of growing the digital economy initiatives. Strategic initiatives such as the Digital Tanzania Project and the Higher Education for Economic Transformation (HEET) are game changers. As development partners our role is to complement the Government's efforts to advance the digital agenda.

We can see from the discussions we have had here that; the country has made tremendous progress in many aspects of the digital transformation – connectivity, internet penetration, a large number of mobile subscribers, you name it. However, we cannot also ignore the issues that have been raised, whether they are related to inclusion, policies, or regulations anything else. It is up to all of us here to contribute to their alleviation. UNDP is eager to continue its contributions through its various initiatives.

UNDP through Funguo programme, we are already working with the Tanzania Industrial Research and Development Organization (TIRDO) to support them in

VOTE OF THANKS

Mr. Sergio Valdini,
Deputy Resident Representative
United Nations Development
Programme (UNDP)

improving their incubation services by upgrading ICT infrastructure and increasing the technical staff's capacity for innovation management. The UNDP Accelerator Lab programme is also spearheading efforts to ensure that Tanzanian farmers are not left behind by supporting digital innovations that can improve their agricultural practices and production through agricultural electronic systems. The initiative is also deploying emerging technologies like artificial intelligence in improving tourism in Zanzibar, among many other initiatives.

My role here was to give a few remarks and a vote of thanks to everyone who helped make this evening impactful. I would like to thank our Chief Guest, Dr. Jim, for always being available when we need him. I thank all the panellists and all of you for coming, as well as our partners the European Union and the British High Commission for making this forum possible.

ASANTENI SANA NA USIKU MWEMA!

VOTE OF THANKS

Dr. Amos Nungu,
Director General (DG)
Tanzania Commission for
Science and Technology
(COSTECH)

Dr. Amos Nungu began by reflecting on the theme "The Digital Tanzania we want" concerning the work that COSTECH does. He attested that there is a need for more research to be done on the topic to provide more data that will be useful in realizing the digital Tanzania that we want.

He further shared how proud he is of the work that has been done in the ecosystem by hubs, accelerators, and other players; however, despite the notable efforts, there is still more work that needs to be done to ensure inclusion for all players and users of technology and digital platforms.

Concluding, Dr. Nungu thanked all guests for participating in the forum and emphasized collaborations among partners in the ecosystem, including academics, as the country is adopting digital technologies.

KEY NOTE

The permanent secretary, Dr. Jim Yonazi from the Ministry of Information, Communication and Information Technology as the Chief Guest at the 4th Innovation &Tech Forum

Before I deliver my keynote speech, I like to highlight a few things; thank you very much for the panels that we had this evening; actually, I was asking myself if I should just come and comment or read my speech because whatever you say this evening is actually what I had planned to read. When you were discussing particularly the pillars of what we are working on, Honorable Neema, to assure you that we are working on your suggestion from the parliament.

Currently, we are working on acquiring a consultant to ensure we design a relevant and robust framework for community networks in Tanzania. Hence, it's not like we have left without no, but as you understand, the government has many stakeholders. Considering that we are working on public resources, it has to be looked at carefully and thoroughly for the benefit of everyone because this is all for the country, and resources are ours. As you understand, particularly when you talk about frequencies, you cannot make frequencies; therefore, sharing of frequencies is quite key the need to be considered carefully, so we're working on that. Still, it was quite interesting, and thank you very much for inviting us.

Dr. Flora is one of the known scientists, and I'm quite happy to have her in this panel and forum; when you recognize her presence, the academia is there. I thank you very much for inviting the academia. Please, next time, ensure that you have many more from universities, technical education institutions, including VETA, etc., because we want innovations to come from there.

There are three pillars that are important when we are working on policies or innovations in our country, and;

- One, is people – so everything that we do has to be centered around people. I'm quite happy that somebody touched this evening that people are platforms nowadays; therefore, their confidence, mindset, skills, and awareness are key to developing our country's digital economy.
- Of course, we need to work on infrastructure and technology, and here I will separate technology from services because the services that we are we also have to invest in content because people need to consume content through infrastructure and technology.
- But again, the contribution you made this evening that the legal and regulatory frameworks that are supportive for the data to flow, for knowledge to flow, products and services to also flow and flourish in our country; so, I just wanted to highlight those things that as a government we are looking at to develop and make sure that Tanzania becomes the hub of ICT innovations and development in the world, which I think it's possible.

KEY NOTE

The permanent secretary, Dr. Jim Yonazi from the Ministry of Information, Communication and Information Technology as the Chief Guest at the 4th Innovation &Tech Forum

Speaking of collaborations, I'm quite happy to have Mr. Munaku with me, listening; he is the driving force behind all the new innovations we are doing in the ministry at the moment in terms of making sure that infrastructure is available. Last year he had budgeted for about 1880 kilometers of fiber to be laid in the country. But then he thought, you know, let me collaborate with TANESCO, which made us leapfrog to 4442 kilometers of fiber network in our country. So, you can imagine how far we can reach and ensure that many more people can access the digital economy and participate, of course.

There's one more thing I would like to highlight and touch on this evening: cybersecurity, so let me challenge you, my friend. I appreciate Mr. Kova, the former Commander of the Dar es Salaam police region; he taught me a very good lesson in his days that you should not instill fear in people. I'm referring to this because if you are given the opportunity to learn and be the custodian of that rare knowledge that you have, I think we also have to ensure our society that we are at work, and let me tell you, as the PS I'm at work and what do I say we are not sleeping. We all have to come together and make sure that we collaborate to create a safer space for Tanzanians to participate in the digital economy. If I stand up here today and say things are worse out there, I think I won't be doing my duty excellently; so, my colleagues' cybersecurity experts give us confidence, show us that you're at work and these people can participate safely in the digital space I think that's our duty and have to fulfill that.

We are working to ensure that Tanzania becomes a digital economy, a super-connected nation, and we have many initiatives that we are working on now. We're expanding the reach, capacity, and extent of the National ICT Broadband Backbone (NICTBB). Recently we completed our operation on the physical addressing system. We also encourage you to download the NaPA application to your phones. That will help us navigate this country and ensure that products and services reach our people. As of now, we want to make sure that everybody is reachable, your house is well-numbered, and the street names are available, which I am sure that's a very big step forward. So, with the physical addressing system, we are confident that services and products can reach our people and enhance their participation in the digital economy.

The government, under the strong leadership of H.E. Samia Suluhu Hassan, the president of Tanzania, is promoting the digital economy, and we have had about that this evening. We don't have any other choice; otherwise, our nation will be left behind, and we don't want to stay and live in a country that is behind in terms of the digital economy. I believe that if we work together, it is possible to leapfrog and take benefit of the digital economy in our country, in Africa but again around the world, and we are determined to make sure that Tanzania becomes an exemplary country in terms of digital services innovations, but again digital pride.

I bring your greetings from my minister Honorable Nape Moses Nnauye, one of the very famous ministers in the digital space currently. I'm proud to work with him, and he says, "Habari za Jioni." Many greetings from my office and my colleagues as well.

KEY NOTE

The permanent secretary, Dr. Jim Yonazi from the Ministry of Information, Communication and Information Technology as the Chief Guest at the 4th Innovation &Tech Forum

I bring your greetings from my minister Honorable Nape Moses Nnauye, one of the very famous ministers in the digital space currently. I'm proud to work with him, and he says, "Habari za Jioni." Many greetings from my office and my colleagues as well. We are quite happy to be invited to this forum this evening, and we wish to probably be invited to future meetings from your organization or any other organizations. I believe that possibly you also have some other forums, and we'll be happy to participate in them. If not, I have my deputy, directors, and CEOs from many other government organizations. We at the ministry are challenged with the duty of ensuring that Tanzania gets and enjoys the benefits of a fourth industrial revolution (4IR), which is actually the theme of this forum this evening. We are quite happy that we have friends and colleagues to participate with, collaborate with, and work together with. So, if I can say more, "MUNGU awabariki sana."

Special thanks to Madam Asha Abinallah; thank you very much for inviting us and making sure that this forum is possible in collaboration with other partners, COSTECH, UNDP, and these beautiful faces this evening, which I don't want them to get tired because of my speech. Still, I'm happy that we are here together and have made this forum possible.

I thank and applaud everyone who is here this evening because it has been possible to discuss and advise. We will take seriously what we have discussed this evening and work on them. I am happy that the director of ICT is here, making sure that he jots down and summarize, and we will also provide feedback. We want you, and we want to ensure that we work together and push the country forward.

Again, on behalf of the minister of information, they say it is the longest name; yes, it is the ministry of information, ministry of communication, and also it deals with information technology, so you can decipher the magnitude of work that is in there; Information, and information technology and of course that's why we have tough people like Mr. Munaku and Madam Justina in there to make sure that information is available, communication is available.

Still, again information and technology leapfrog in our country. So, on behalf of the ministry and our minister Nape Moses Nnauye, we thank you very much and welcome you to the ministry.

Most importantly, we welcome you to "TANZANIA YA KIDITALI," which is possible.

Thank you very much.

PART TWO

Fireside Chat and Panel Discussions

Fireside Chat

The discussion brought together key government agents responsible for enabling the environment and infrastructure that enable internet access and use at both a national and regional level for all. By bringing them together, the discussion aimed to create a platform for collaboration, knowledge-sharing, and mutual support in the pursuit of improving internet access and enabling digital transformation across the country.

The forum featured a fireside chat with government experts who shared actions, strategies, and challenges for achieving the digital Tanzania we desire. It was led by Mr. Joseph Manirakiza, Funguo Tanzania Program Manager with experts (as seated) from the left, Mr. Nkundwe Moses Mwasaga - the Director General of Tanzania ICT Commission, Ms. Justina Mashiba - the CEO of the Universal Communication and Service Fund (UCSAF) and Hon. Neema Lugangira, a Member of Parliament from Tanzania and Chair for the African Parliamentary Network on Internet Governance.

Pushing for the "Digital Tanzania" We want through the ICT Commission and UCSAF

Dr. Mwasaga share that the commission has two main functions: to coordinate the implementation of the ICT Policy and to promote ICT in the country. The commission focuses on the promotion of ICT in Tanzania in four areas:

1. Promoting professionals
2. Promoting startups
3. Promoting regions in Tanzania so that they compete in the digital economy in the country
4. Promoting the country so that it can be competitive in the global economy

It is the core role of the commission to digitize Tanzania because it interlinks with all institutions in the country. The difference between the way things were done in the past and the way they are done now working towards transforming people's lives in activities they're doing five aspects;

1. Ensure that all Tanzanians have a basic foundational understanding of digital education
2. Building digital trust and assurance to citizens by ensuring digital platforms are secure for their use
3. Ensure that telecommunication services are equally provided to all citizens without discrimination
4. Ensure that the digital economy of Tanzania is inclusive;
5. Ensure that digital innovation in the country is informed through research that different experts conduct.

The Universal Communication and Service Fund (UCSAF), is a governmental agency established in 2006 and mandated to extend communication services in rural areas. Statistics show that 80% of the population in Tanzania lives in villages. The primary role of UCSAF is to bridge the digital gap between urban and rural people.

Infrastructures must facilitate the transition to enable the country to transform and adapt to the digital economy. The government, through UCSAF, subsidizes mobile network operators to set up infrastructure in villages to facilitate the inclusion of all citizens in the digital economy in the country. Before the establishment of UCSAF, the percentage of the population that had access to communication services was 45%; after the intervention of UCSAF, it rose to 94% of coverage. But this achievement was only possible by collaborating with the private sector.

Ms. Justina shared her appreciation for the mobile network operators working closely with the government to ensure that the population in rural areas across the country has access to communication services. She also stated that, UCSAF is willing to meet with stakeholders to strategize how community networks can be integrated into the short and long term. The government has set aside funds to investigate how we can use community networks in Tanzania in the best way possible.

The role of
Parliamentarians in accelerating
Digital Adaptation &Transformation in Tanzania

Hon. Neema Lugangira, the newly elected chairperson of the African Parliamentary Network on Internet Governance (APNIG) hosted by the African Union (AU), stated that she wants Tanzania to benefit from the coalition. Among the things she has accomplished is lobbying the United Nations Economic Commission for Africa (UNECA) to host the African Girls Coding Week in Tanzania, which is set to take place at the end of August this year in collaboration with the ICT Commission. African parliamentarians feel that the technology sector has grown on its own with the exclusion of the parliamentarians. There is a risk that the industry has tremendously developed, but parliamentarians has minimal understanding of the relevant information in the tech sector.

Hon. Lugangira admitted that the technology sector in Tanzania has tremendously developed. Still, parliamentarians need to be at the pace of understanding and conversing with the different concepts in the tech sector despite having the mandate to create the legislative and regulatory framework. Realizing that gap, the APNIG has outlined as its priority to ensure parliamentarians get capacity building on concepts related to ICT such that they can advise the government and have a consensus on what they are championing.

She further stated that there is a need to engage parliamentarians in conversations that are taking place in the ecosystem so that they can know what is taking place in the ecosystem and push for policy agendas that are hindering the ecosystem in the parliament.

She commended the work of the ICT Commission and UCSAF. When discussing connectivity, it is critical to look beyond what has already been done and consider other ways to accelerate inclusion in the country, such as community networks. To connect the last mile, we must acknowledge the importance of community networks. The International Telecommunication Union (ITU) decided earlier this year to recognize community networks as one of the critical tools for accelerating connectivity to the last mile.

Hon. Lugangira shared that President H.E Samia Suluhu Hassan has proven to be a digital champion because she has insisted on using digital solutions in different sectors, which offers a unique advantage to leverage from that opportunity. She shared her experience with the National Bureau of Statistics (NBS) to follow up on the capacity-building training for census clerks in the Kagera region that the NBS was holding. It was fascinating to learn that approximately 80% of the trained clerks had never touched a tablet prior to the training. NBS has been able to spread digital literacy and skills through the census process. She suggested that extra efforts be made to ensure the peripheral regions are in the same way that actions are taken to ensure the urban areas.

Is Tanzania on the right track on the implementation of the ICT Policy?

Dr. Mwasaga responded that the ICT Policy being implemented in the country is well-designed, as the market is ready to date. The mobile communication market in Tanzania is still very young. It can absorb new entrances and is ripe, so new mobile operators are interested in coming to the Tanzanian market.

Tanzania is one of the countries that is doing very well globally regarding financial inclusion; the price of the communication bundles is also very affordable compared to other African countries. He further shared a reflection from statistics that 10% of the country's population resides in Dar es Salaam which is 6 million people. Data shows that it contributes 17% to the country's Gross Domestic Product (GDP). The government has worked hard to ensure that the mobile network connectivity in the city is fully covered.

Dr. Mwasaga shared that;

1. There are some challenges arising due to poor urban planning.
2. There is another challenge with the infrastructure of fiber to the home due to the charges set by TARURA, which charges 1000 USD per Kilometer, which is very expensive and a hindrance to the government goal of connecting 80% of the population by 2030; therefore, there is a need of government agencies to work together and ensure that they all align to achieving that goal.

He further stated that, while the ICT commission is working on digital transformation, the lack of collaborative law affects various sectors, such as tourism and others because citizens prefer the global product; collective regulation measures are necessary for effective policy implementation.

Mr. Nazar Nicholaus, the Internet Society Tanzanian Chapter President, contributed from the audience regarding the collaborations Mr. Mwasaga requested. He shared on how beneficial community networks have been to the constituency where he lives; they designed a Kigamboni Community network Innovation hub with proper policy guidance, and community networks can be implemented nationwide.

To achieve the digital Tanzania we desire, Dr. Mwasaga stressed that several important pillars must be put in place to fulfill our goals. These are Digital skills for all, digital security, digital economy, digital telecommunications, and digital research and innovation.

DISCUSSION HIGHLIGHTS

Panel Discussion

The forum drew experts from the ecosystem from different angles who shared their expertise and thoughts on what it will take to realize the digital Tanzania we want. Among the key highlighted things are the 3 P's; people, process, and system, which should be in sync to ensure we achieve the digital Tanzania we want. The panelists also insisted on collaboration and communication among ecosystem players to ensure that designed policies address the ongoing challenge.

From the left is the facilitator is Ms. Khalila Mbowe – the Country Director of Girl Effect, Dr. Flora Ismail former Programme Director, Southern African Innovation Support Programme (SAIS), Mr. Jones Mrusha – Founder and Technology Executive of Innovation Hub255, Ms. Risha Chande – Director of Engagement and Advocacy at TWAWEZA, Mr. Nguvu Kamando – Director of Digital VAS at Vodacom Tanzania Plc and Mr. Peter Baziwe – President of Information Systems Audit and Control Association (ISACA) Tanzania Chapter

Uncovering the
key pillars toward realizing
the digital Tanzania we envision

From Dr. Ismail's expert point of view, human capital, collaboration, and the right policies among the critical pillars of the digital Tanzania we envision. Highlighting human capital, she shared that it should not be only about what people know or skills but also the ability to absorb new technologies because if people cannot absorb new technologies, it will form a stumbling block. Regarding collaborations, she stressed that this is far from just organization sharing ideas but also forging critical binding partnerships between crucial ecosystem players, including academicians, CSOs, and the community who are the end users, while ensuring that each player understands digital transformation well.

In the end, all these can never be possible if the public and private sector will not join hands towards designing and setting the right policies, processes, and models that will not only help people at the individual level to understand why digital transformation but will also set in motion the projects that as the country has in place to accelerate digital transformation countrywide.

Mr. Jones Mrusha emphasizing Dr. Flora's contributions, pointed out the 2 Cs that are important in realizing the digital Tanzania we want, which are;

1. Collaboration – Jones stressed the importance of partnerships that should not be underestimated. Every development and advancement in the digital space has occurred because people worked together to build them up.
2. Capacitate – as we envision building great technologies, ecosystem members also need to work together to invest efforts in creating capacity for individuals and increase the number of experts who understand the ecosystem to ensure the inclusion of all.

Ms. Risha Chande had four significant points to share with the audience, stating that the priority pillars are;

1. The idea of freedom allows people to learn from every design process. She stated that according to research by Twaweza, statistics show that 80% of citizens agree that in Tanzania, taxes are high and can hinder business growth, which shows that a lot needs to be done on freedom.
2. Collaboration as a key ingredient. Through collaboration, individuals and organizations can pool their resources and skills, leading to increased efficiency, productivity, and innovation that is result oriented.
3. The third important pillar she mentioned is attitude and mindset. People need to have an open mind to see the potential of what can be done so we can imagine even better and bigger things.
4. She also shared another angle: skills on digital citizenship that people need to learn to engage with humility in the digital space.

Mr. Nguvu Kamando's response was of the three pillars drawn from the critical fundamentals that Vodacom and Vodafone are built on in Digital society by ensuring good connectivity and creating infrastructures that address the needs of the people.

Through service delivery, Vodacom ensures inclusion for all to warrant that we achieve the digital Tanzania we want. Vodacom considers the needs and inclusion of all people in urban, semi-urban, and rural areas. He added that the company designs solutions at the cost of the planet by observing global environmental protection measures as they believe that technology without humans is nothing. Vodacom's motto is to lead Tanzania into a digital age by changing people's lives through technology.

Mr. Peter Baziwe emphasizedIn today's digital world, technology is integral to almost every aspect of daily life, and as a result, cyber threats are becoming increasingly common. Cyber security is a critical aspect of technology and should not be overlooked. It is essential for individuals, organizations, and governments to understand the significance of cyber security and take proactive measures to protect themselves from cyber attacks. ISACA works towards providing people with trust and digital assurance to all information systems, as it believes there is no point in having regulations people do not trust or have no assurance on.

1. Cybersecurity education and awareness: Ensuring that individuals and organizations are aware of the importance of cybersecurity and have the knowledge to protect themselves online.
2. Strong cyber laws and regulations: Having clear laws and regulations in place to protect citizens and businesses from cyber threats, and to hold those who engage in malicious activities accountable.
3. Effective cyber incident response: Having a well-coordinated and efficient response plan in place to effectively manage and respond to cyber incidents.
4. Investment in cybersecurity infrastructure: Ensuring that the necessary technology, resources and personnel are in place to effectively defend against and respond to cyber threats.
5. Public-private partnership: Building strong partnerships between the government, businesses and other stakeholders to enhance cooperation and collaboration on cybersecurity initiatives.

Panelists in a picture with the Chief Guests
on the 4th Innovation & Tech Forum, August 2022

The role of telecoms in tackling Social Inequalities through digital platforms

Mr. Kamando elucidated that there is enormous opportunity in the digital economy. Tanzania is among the youngest countries, as over 60% of the population is below 35 years of age. Vodacom believes that collaborations and technology can transform people's lives in agriculture, entrepreneurship, health, mobile money, and entertainment sectors, to mention a few. In addressing the inclusion gap, Vodacom has been engaging with different stakeholders, including the government, on delivering training through other programs, such as the Code Like a Girl program that was introduced in 2018, to date 1306 young girls from different regions of the country, have successfully graduated from the program which most of them are now scaling up in the market.

The company is also running a Graduate program where university graduate students get an opportunity to be trained by experts in the company to develop their skills and prepare them for the job market. Vodacom runs a digital acceleration program that brings together young entrepreneurs and empowers them to realize their dreams in the shortest time possible.

Through the M-Mama, a project in the heart of Vodacom aimed at transforming women's lives in rural areas through technology by providing pregnant women with access to emergency transport services. Despite all the initiatives done by Vodacom, Mr. Kamando explained that the company is open to collaborating with stakeholders giving an example of a newly established partnership with Mwananchi Communication Ltd, where they have just launched a farm clinic for youth aiming at revolutionizing agriculture through technology so that people can have more and good productivity with omens life efficiency.

Despite the underlying challenges in working together with the government, there is great potential in addressing the challenges at the Mobile Network operators' level that needs to be addressed. Mr. Kamando shared that removing Value Added Tax was taken quicker because the country is not yet seeing a better growth rate on intelligent phone penetration while still building on a high-speed broadband network. The usage gap is increasing because people still use 2 G-only devices. The growth rate of new users coming with new 2 G-only feature devices is almost equal to that of 3G, which it shouldn't like because efficiency cannot be measured.

Mr. Nguvu Kamando stated that stakeholders should focus on digitization and that the following are unavoidable for a digital Tanzania.

1. Skills development for all without leaving anyone behind.
2. Innovators must design products relevant to the local context (it is critical to localize innovation and always think a step ahead).
3. The government should also be adaptable to improve service delivery efficiency through digital transformation.
4. Taxation should not be a barrier to the sector's growth.
5. Establish safe online spaces for digital users.

Social security for entrepreneurs and innovators in Tanzania

Dr. Flora acknowledged the effect brought by the global pandemic in various sectors. She shared her experience on a program that she worked in where they piloted a virtual accelerator at the beginning of COVID-19. In the accelerator, they were working with innovators to do market validation of their product. The project was successful because they did not have to fund the entrepreneurs anymore; they scaled up quickly.

She shared another example of a project that had integrated technology working with underserved girls living on income margins of society, providing them access to desktops. When gatherings were prohibited, the project could have done better. Still, since the project used digital approaches but depending on the digital service provided where one was physical, the other virtually different results were achieved. In terms of social protection during the pandemic, governments used different approaches as not all communities are not uniform; therefore, in designing plans to provide social security for entrepreneurs in the digital economy, it's essential to have other products that are relevant and affordable for them.

Mr. Jones shared that the ecosystem members should be involved from the problem identification stage. He stated that most policy challenges on policies are imported, and there is a need to invest more in research to get relevant data that will be useful in designing solutions to challenges in our communities.

He called upon all stakeholders involved from problem identification to address challenges that are taking place on the ground rather than only because there is a potential of a donor fund on a particular which is not solving our day-to-day challenges.

An example of a National financial inclusion strategy of 2018 – 2022 relative to the recent government levy tax that recently arced online transactions is contradictory to the country's financial inclusion strategy. He hinted that identifying and designing solutions in the Tanzanian context is difficult. Players at all levels of the ecosystem should be aggressive and not wait to be invited to decision-making tables but rather knock on doors and find their place at the table.

Mr. Peter described security in a shape of a circle, the first circle being people – how do people use systems; the second circle is processes – what business processes are there and if there are proper regulations for the operations; the third circle being systems – how they are managed and configured; the fourth circle being data – data is held in the systems, how do you ensure the information is protected?

He insisted that educating people on why they should not release their data is essential because even if the government has a reasonable regulations framework in place and people still release their data, it could be more helpful. Build the capacity to respond to the risks of digital transformation through having, i.e., data protection laws, laws to protect the citizens, and laws to protect the systems. This can be achieved by understanding how the system works, acknowledging where the systems have made mistakes, and building better from the lessons.

PART THREE

Moments in Pictures

Moment in pictures during the 4th Innovation and Tech Forum on August 19, 2022 at Coral Beach Hotel

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the 4th Innovation and Tech Forum
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TECHNOLOGY Players such as civil societies, academia and the community must come forward with one voice

Priority areas for digital system vibrancy outlined

Experts say it is high time the government invested heavily in human capital, infrastructure and networking if the digital migration is to benefit majority of Tanzanians

By Gadiosa Lamtey
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Dar es Salaam. Technology stakeholders said investment in human capital, infrastructure, collaborations and networking are to be prioritised for the country's enrolment to the digital world that will fully benefit Tanzanians.

The advice was given during the fourth Innovation and Technology Forum organised by Media Convergence through the Funguo project.

A University of Dar es Salaam (Udsm) student, Dr Flora Ismail, said there was a need to heavily invest in human capital.

"If we don't seriously invest in human capital, improve infrastructure and networking to bring in the majority of Tanzanians. This is because the country may have all the technology, but if the econo-my cannot absorb, it will be a stumbling block," she said.

She said all players such as civil societies, academia and the community who intend to serve them should see how to make effective digital conversation and have one voice.

The founder of Innovation Hab255, Mr Jones Mrusha, said for the country to achieve in the digital issues, collaboration and stakeholder's involvement should not be undermined in exploiting available potentials.

"Every digital space needs collaboration. There is a need to increase investment in the area in order to develop solutions, otherwise it will be difficult to realise the intended purpose," he said.

Speaking during the event, Information, Communications and Information Technology, Permanent Secretary Jimmy Yonazi said the gov-

> There's a need to increase investment in the area in order to develop solutions
>
> **MRUSHA** | OFFICIAL

ernment was building a strong infrastructure that will help to deliver communication to all parts of the country especially in rural areas and ensure no one is left behind.

He said it was also formulating policies that would enable the country to become a technology hub for innovation and research, urging for increased stakeholders' collaboration.

"We are not sleeping, we are working hard to create a safe environment for Tanzanians to participate in the digital economy," he said. "Therefore, I challenge colleagues from the cyber security to provide confidence rather than create fear so that people can participate safely," he stressed.

United Nations Development Programme (UNDP) deputy resident representative Sergio Valdini said the programme has been supporting the event from its inception because of its understanding on the significance on the platform. "We are committed to continue supporting this and other similar initiatives to provide avenue for the wider public debate and influence on key initiatives and policy issues that are essential for the growth of innovation and technology ecosystem in the country," he said. "It is encouraging to see the government of Tanzania and its agencies at the forefront of growing the digital economy initiatives," he said.

From Left: Joseph Manirakiza, the Programme Manager, UNDP Funguo Innovation Programme, ICT Commission Director General Dr Nkundwe Mwasaga, Universal Communications Service Access Fund (UCSAF) CEO Justina Mashiba and Neema Lugangira (legislator) during a discussion on technological issues.
PHOTO: GADIOSA LAMTEY

Guardian BUSINESS NEWS

ICT stakeholders call for enhanced investment on infrastructure, skills

By Francis Kajubi

STAKEHOLDERS in the information and communication technology (ICT) are calling for more investments in infrastructure development, bridging the skills and knowledge gap among ordinary Tanzanians to enable them to fully participate in the digital economy.

Speaking at the fourth innovation and technology forum held in Dar es Salaam recently, stakeholders also called for friendly laws and regulations to guarantee security from cyber-crimes, adoption of digital currencies and data protection.

"Further infrastructure development will ease connectivity to the last consumers of digital services and products in line with bridging the digital skills and knowledge gap especially in rural areas. This should be the key priority for both private and public sectors," said Jones Mrusha, technology executive and founder of Innovation Huh255.

Mrusha said it is crucial that private and public sector should collaborate in funding startups and conduct research projects.

"Investment in infrastructure will pull down costs in accessing digital services and provide a wider room for low income earners to benefit from innovations," he said.

Vodacom Tanzania Plc director of digital and value added service Nguvu Kamando said that innovations should target at creating digital solutions for common people.

"We need to transform people's lives through technology by setting up policies that favours growth of innovation players and preventing social inequalities in digital space," said Kamando.

According to him, investment in innovation in 2021/22 globally topped 6bn/- while in Tanzania stood at $150 million.

Peter Kisa Baziwe, technology auditor and president of Information Systems Audit and Control Associa-

tion (ISACA) Tanzania Board, said for Tanzania to realize full digital space developments the government and stakeholders have no other option but to invest in extending knowledge about cryptocurrency and blockchain technology so that people knows the opportunities that comes with it and how to go about them.

"We need to look at digital trust and assurance. In this case, data protection laws and regulations are needed in

place to cater to cybercrime incidents that scare away people from being part of the digital economy," said Baziwe.

Responding, Dr Amos Nungu Director General COSTECH said that the commission is working with researchers and innovators in creating solutions that will give people confidence to invest in cryptocurrency and blockchain spaces.

"People are still not confident to go for cryptocurrency and blockchain technologies because they are worried of fraud. In creating people's confidence the commission has plans of funding research projects that bring answers on how to go about the technologies at the local market," said Dr Nungu.

He said the commission has already submitted a proposal to the International Development Research Corporation (IDRC) to raise funds that will be extended to research projects that target at strengthening innovation ecosystem.

Dr Jim Yonazi, Permanent Secretary Ministry of Information, Communication and Information Technology said the government is keen at creating a safer space for people to participate

in the digital economy by laying down necessary infrastructure targeting to easy internet accessibility in rural areas.

He said during the 2022/23 financial year, the ministry targets at improving the National Information and Communications Technology Broadband Backbone (NICTBB) with a 2.4billion/- project to extend internet accessibility.

The project includes the construction of fibre optic network, power and transmission equipment, and is expected to improve the quality of internet connectivity and penetration.

According to him, the ministry will also construct 150 telecommunication towers with an internet speed of 3G, upgrading 350 telecommunication towers to access 3G and 4G from 2G.

"The ministry targets at constructing 15,000 kilometers of the NICTBB network as of 2025. Almost 8,030 kilometers have been constructed so far. In the current fiscal year the ministry targets at constructing 4,442 kilometers," said Dr Yonazi.

Sergia Valdini, Deputy Resident Representative UNDP Tanzania said "It is very encouraging to see the government and the private sector holding discussions on digital transformation.

Dr Jim Yonazi, Permanent Secretary in the Ministry of Information, Communications and Information Technology

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The above is as published by the Guardian August 22, 2022 while the below as published by Dodoma News August 22, 2022

UNDP Tanzania Deputy Resident Representative, Sergio Valdini speaks during the 4th Innovation and Tech Forum on exploring "The Digital Tanzania We Need - What will it take to realise it" in Dar es Salaam, over the weekend. The event was coordinated by Media Convergence under the custodianship of COSTECH and support of the United Nations Development Programme (UNDP) through the Funguo Programme. (Photo by Our Correspondent)

CONCLUSION

The 4th Innovation and Tech Forum was a resounding success, bringing together stakeholders from across the digital landscape in Tanzania. The forum provided a valuable platform for participants to share insights, experiences, and suggestions on how to drive digital transformation in Tanzania. The discussions and exchanges during the forum highlighted the challenges and opportunities that exist within the digital space in Tanzania, as well as ongoing initiatives aimed at addressing these challenges and leveraging opportunities.

The contributions key contributors and participants underscored the importance of collaboration and partnerships among stakeholders in promoting the adoption of digital technologies in various sectors of the economy. Moving forward, the insights and recommendations from the forum will be used to inform policy-making and development of strategies and initiatives to drive digital transformation in Tanzania. The forum also served as a reminder of the critical role that digital technologies play in shaping the future of Tanzania, and the need for continued investment and collaboration to ensure that Tanzania is well-positioned to compete in the global digital economy.

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