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NEWSLETTER

TECHNOPOLICY AFRICA

The Official Newsletter of the African Technology Policy Studies Network (ATPS)

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REVOLUTIONIZING AGRICULTURE

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ATPS Vision:
To use Science, Technology, and Innovation (STI) as a means for achieving sustainable development in Africa

ATPS Mission :
To improve the quality of Science, Technology, and Innovation (STI) systems research, policy, and practice by strengthening the capacity for STI knowledge generation, dissemination, and use for sustainable development in Africa

Overall Objective:
To build Africa's capability in Science, Technology, and Innovation for sustainable development

ATPS Motto:
Building Africa's capabilities in Science, Technology, and Innovation policy research, policymaking, and policy implementation for sustainable development.

Inside:

Chairman's Message

Prof. Crispus Kiamba,
Chairman, ATPS Board of Directors

As we approach the close of another impactful year, it brings me great pleasure to address you in my capacity as the Chairman of the Board of Directors of the ATPS. This has been a year marked by resilience, collaboration, and forward-thinking initiatives within our vibrant community of researchers, policymakers, private sector actors, and innovators among others.

Throughout the year, ATPS has continued its unwavering commitment to fostering science, technology, and innovation for sustainable development in Africa. Our projects have not only addressed critical challenges but have also illuminated new pathways toward a brighter future for our continent.

I am delighted to extend my heartfelt congratulations to our esteemed Executive Director, Prof. Nicholas Ozor, on his well-deserved promotion to Professor. Prof. Ozor's dedication, leadership, and visionary approach have played a pivotal role in steering ATPS to new heights. Under his exemplary guidance, ATPS has continued to thrive, achieving remarkable milestones and garnering international recognitions.

As we celebrate Prof. Ozor's achievements, let us also acknowledge the entire ATPS team for their unwavering commitment to advancing science, technology, and innovation in Africa.

Together, we have created a dynamic and collaborative environment that fosters groundbreaking research and meaningful contributions to the socio-economic development of our continent.

The success of our projects, our engagement with global partners, and the recognition of our researchers and innovators on the international stage underscore the positive impacts that ATPS is making. These achievements are a testament to the dedication and hard work of each member of our dynamic team and network.

Looking ahead, as we step into a new year filled with promises and possibilities, let us renew our commitment to leveraging science, technology, and innovation to address the pressing challenges facing Africa. Together, we can shape policies that propel us toward a more sustainable, inclusive, and technologically advanced future.

As we celebrate our achievements, let us also reflect on the work that lies ahead. Together, we will continue to drive positive change and make meaningful contributions to the advancement of science, technology, and innovation in Africa.

Wishing you all a joyful festive season and a prosperous New Year 2024!

Executive Director's Message

Prof. Nicholas Ozor,
Executive Director, ATPS

As we draw near to the close of 2023, it is with immense enthusiasm that I share the remarkable milestones we have achieved together at the African Technology Policy Studies Network (ATPS). This year has been a testament to our dedication to innovation and adaptability.

In 2023, we have successfully introduced several new programs and initiatives, showcasing our commitment to addressing the evolving needs of stakeholders in the Science, Technology, and Innovation (STI) ecosystem across Africa and beyond. Our proactive approach has seen the launch of more than five impactful projects aimed at tackling societal challenges, including issues bordering on agriculture, food and nutrition security, innovation, skills and youth employment, climate change and environment, artificial intelligence development and deployment, research and innovation funding, policymaking and implementation, and gender equality and social inclusion among others.

Our outreach efforts have expanded significantly, creating meaningful connections with a broader community of innovators, researchers, and thought leaders in the STI landscape. We are proud to report that our partnerships with key stakeholders have been strengthened, amplifying our collective impact on the STI ecosystem.

I was honored to represent ATPS at the African Union Consultative Meeting on Science, Technology, and Innovation Strategy for Africa (STISA) 2034. This pivotal gathering, which took place from the 7th to the 8th of November 2023 in Cape Town, South Africa, was focused on shaping the Science, Technology, and Innovation landscape for our continent over the next decade. Together with esteemed participants, we are actively engaging in drafting the strategy that will guide Africa's development through STI from 2024 to 2034.

Moreover, I had the privilege of participating in the 'Science Granting Councils Initiative (SGCI) Annual Forum and the Global Research Council (GRC) Sub-Saharan Africa Regional Meeting, hosted in Mombasa, Kenya from November 13th to 17th, 2023. This event brought together representatives from over thirty countries to deliberate on key issues such as Science, Technology, and Innovation (STI), climate change, and the vital role of funding agencies in funding research and innovation development in the participating countries as well as policymaking and implementation. At the heart of the 2023 Annual Forum was a Masterclass on research funding flows, providing valuable insights into the complex landscape of funding from various sources. The session aimed to equip Science Granting Councils (SGCs) with concrete recommendations to effectively manage research agendas and foster partnerships.

I want to express my gratitude to all our stakeholders and the dedicated ATPS team for their unwavering commitment and support. It is your passion and hard work that continue to drive our mission forward, and I am confident that together, we will achieve even greater milestones in the coming years. In a special way I want to thank our consortium of donors for their continued support to the ATPS Strategy, Programs and Interventions that aim to use STI as a means for achieving sustainable development in Africa.

As we approach the festive season and the dawn of a new year, I extend my warmest wishes to each one of you. May the holiday season be filled with joy, reflection, and moments of rejuvenation. Here's to a Happy Festive Season and a New Year filled with growth, prosperity, and collaborative success.

Thank you for your ongoing dedication to advancing science, technology, and innovation in Africa.

Revolutionizing Agriculture: Empowering Smallholder Farmers with IoT and Responsible AI

By Dr. Betsy Muriithi, Research Fellow at iLab Africa, Strathmore University, Nairobi, Kenya.

Introduction

In the ever-evolving landscape of agriculture and food security, smallholder farmers in Africa stand as key players in maintaining local economies and securing essential nourishment. In Kenya, smallholder production on farms of less than 2 hectares is responsible for about 80% of the nation's agricultural output. Smallholder farmers are highly dependent on rainfed farming systems, which leaves them highly susceptible to unpredictable weather and climate patterns due to climate change posing a substantial obstacle to their productivity and livelihoods.

One of the means to climate-proof the agriculture sector is the development of agro-weather forecasting, monitoring, and dissemination tools. Access to accurate weather information significantly impacts agricultural decision-making. Farmers armed with precise weather data can optimise planting and harvesting activities, leading to improved crop yields and reduced losses. Moreover, climate forecasts contribute to vulnerability reduction against droughts and extreme weather, thereby enhancing food security and livelihoods. Additionally, integrating indigenous knowledge with scientific data has been shown to increase the adoption and effectiveness of early warning messages.

Our analysis of a sample of smallholder farmers in Nambale and Butula Sub-counties in Busia County found significant barriers to access and use of weather and climate information services. The main challenges were categorised as access-related barriers and utilisation-related barriers. Access-related barriers included issues such as no access channels, and poor network coverage among others as summarised in Figure 1.

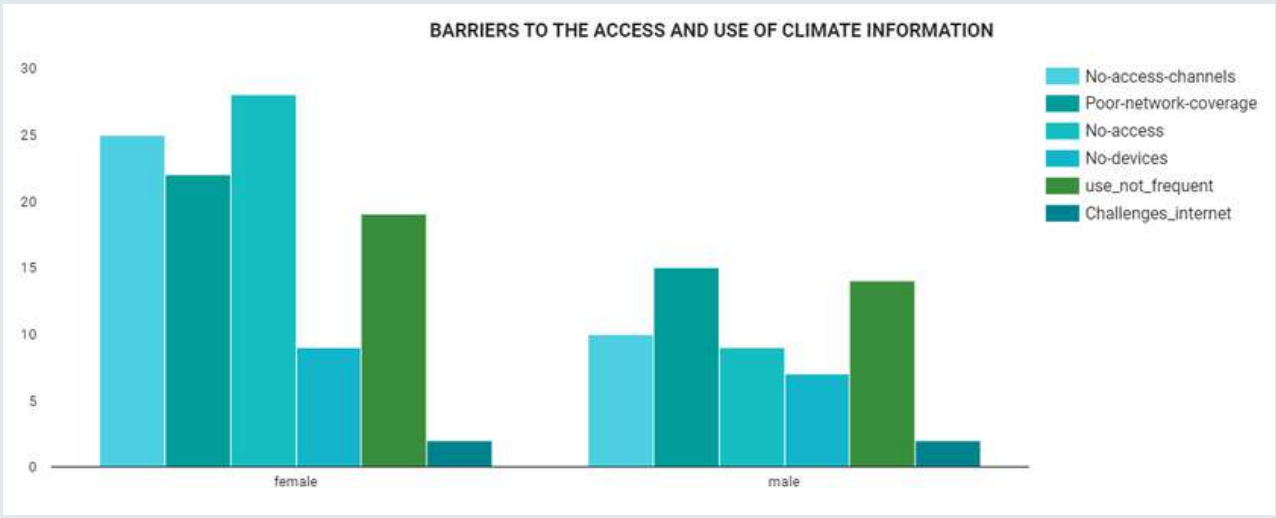

Figure 1 Barriers to accessing weather and climate information.

In terms of utilisation of weather and climate information services, language and literacy-related barriers are the major challenges cited by smallholder farmers sampled summarised in Figure 2. The majority also felt that the information provided was not relevant to their needs making it difficult to apply in their farming practices.

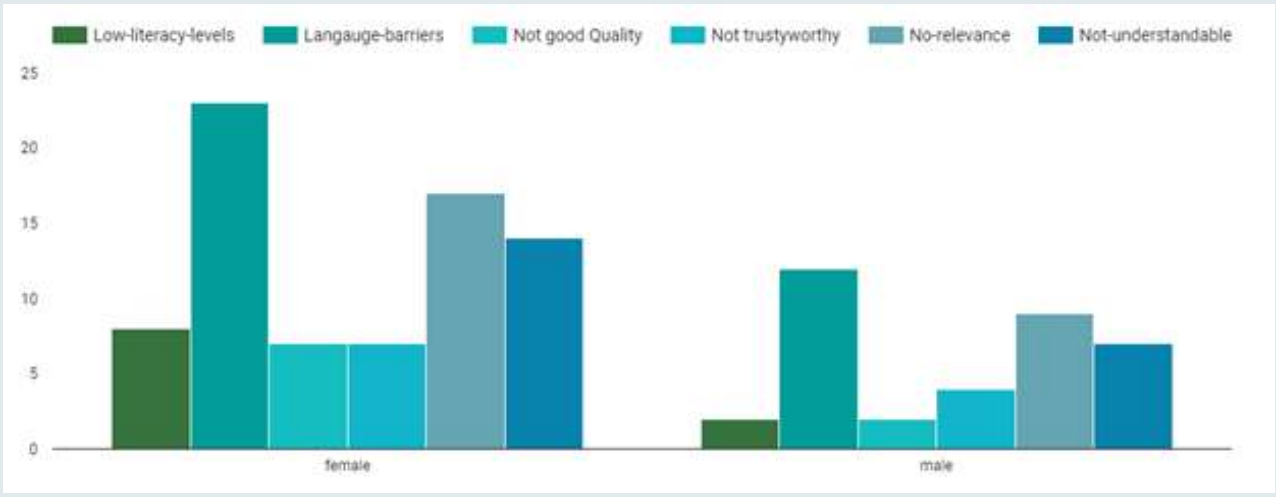

Figure 2 Barriers to using weather and climate information.

Overall, the lack of access to localized and usable weather and climate data renders them highly vulnerable to sudden shifts in weather conditions and hinders their ability to adapt to climate change. These challenges need to be addressed to secure the future of the nation's food system in the wake of climate change.

The Promise of AI and IoT in Agriculture

The synergy of Artificial Intelligence (AI) and Internet of Things (IoT) technologies is being used to address various challenges in agriculture head-on. The convergence of Artificial Intelligence (AI) and Internet of Things (IoT) technologies offers a potential solution to enhance crop yield, production monitoring, and sustainable agriculture practices, all of which are crucial for ensuring food security. The potential of AI and IoT applications in smart agriculture is being explored extensively, to revolutionize precision farming practices and have demonstrated the capacity to transform various aspects of agriculture, including soil monitoring, precision seeding, smart irrigation, predictive analytics, and disease detection.

Focusing on weather and climate information, on the one hand, IoT technologies have actualised the transition from traditional macro-infrastructures that rely on expensive weather stations to mini weather stations using cheaper wireless sensor networks that can be deployed at the farmer level. These affordable devices equipped with various sensors offer real-time data collection and transmission, which can empower farmers with localized and cost-effective weather data, enabling informed decisions and effective resource allocation. Moreover, smallholder farmers have access to readily available mobile phones that can be utilised in disseminating the forecasts at the local level. Therefore, Large Language Models can be leveraged to build conversational agents that disseminate information via chatbots in the preferred language of smallholder farmers to increase the uptake of information by reducing literacy and language barriers. Thus, we aim to contribute to this active area of research of empowering smallholder farmers with affordable IoT-enabled weather stations and AI-driven climate information services. By enhancing climate resilience and offering accurate weather forecasting, this research seeks to mitigate climate-related challenges and improve agricultural productivity.

The Mini-Weather Station System

The mini-weather station system comprises a mini-weather station that collects data from a 20km radius on different weather parameters, which include temperature, UV index, humidity, and light using sensors. The collected data is transferred to an online database and made available through a website and a mobile application.

The mini weather station design experimented with different materials to ensure the costs are maintained at a suitable level as depicted. 3D printed casings are often utilised in previous studies however, due to the limited printers in the country, this appreciates the cost substantially. Therefore, a design with electrical casing was developed with AB-testing to be conducted once substantial data has been collected. Additionally, to make it self-sustainable a solar panel of 5v 11 mAh is used to charge a 5 V battery.

Figure 3 3D printed casing

Figure 4 Electrical box casing

The data from the mini weather stations is collected, analysed, and visualised on a web application based on Microsoft Power BI. The application allows for remote monitoring of the devices in terms of signal strength, battery power, and weather readings.

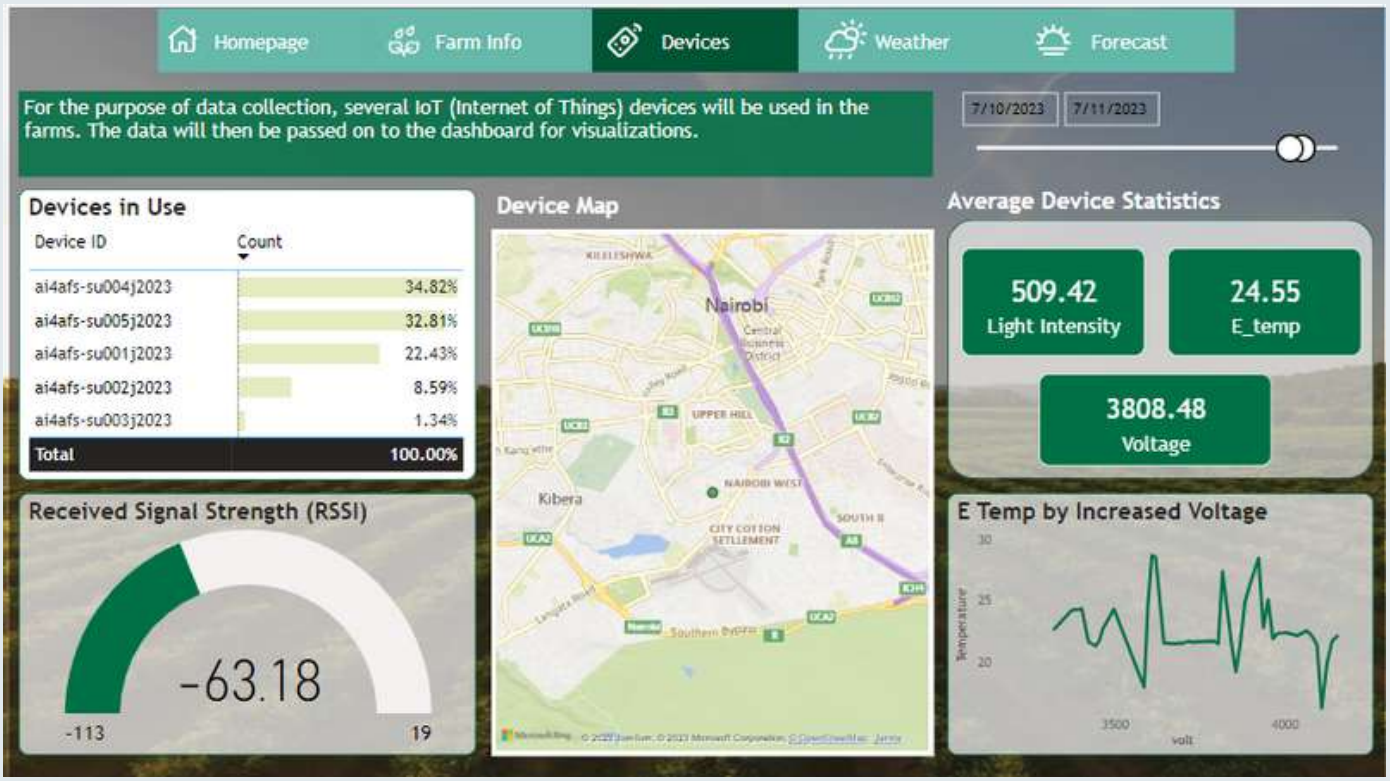

Figure 5 Web application showing the device status and readings page.

The mobile app is an integral part of disseminating information to smallholder farmers. It includes an interface to display the readings and weather forecasts as well as a voice-based advisory. The voice advisory process that takes in a user input specifying the crop of interest, say "maharagwe" (beans) for instance, the tool employs the HuggingFace Mbaaza Speech-to-Text (STT) model, to transcribe the user's spoken Swahili into text.

Figure 6 Daily weather and forecast page of the mobile application

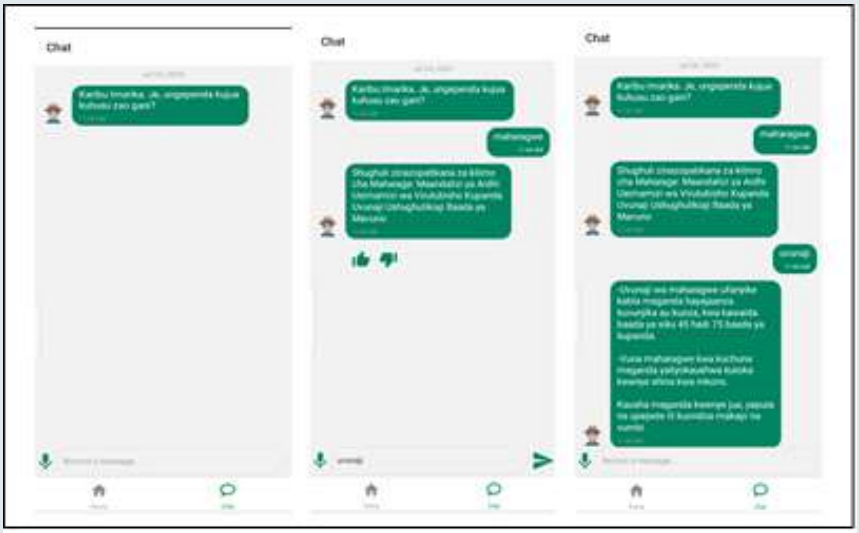

Figure 7 The voice-based agro-advisory interface

Conclusion

In conclusion, AI and IoT offer promising solutions to enhance smallholder farmers' resilience against climate variability. While challenges in access and utilization persist, innovative approaches demonstrate the potential to revolutionize weather information dissemination. Empowering smallholder farmers with accurate and localized data is crucial for securing the future of food systems in the face of climate change. The successful integration of AI-driven tools with IoT-based weather stations has shown how data-driven insights can empower smallholder farmers.

The salient features of our solution include maintaining local development and using sustainable materials to ensure the devices are not restrictive to local community-based organisations in terms of cost. Additionally, the deployment of interactive voice response systems in local languages further promotes inclusivity and user-friendly access, addressing barriers posed by limited digital literacy. The devices are currently deployed at Machakos, KALRO headquarters and KALRO Muguga farm offer lessons that will provide a solid foundation for future deployments in regions of Busia, enabling the refinement and optimization of the system based on real-world experiences. Specifically, 20 mini-weather stations will be deployed in Butula and Nambale Sub-counties in Lwanikha, Kisoko, Bulwani and Bukhalalire Villages.

Safeguarding African Businesses in the Digital Age

By Mwyne Peter, a cybersecurity visionary dedicated to safeguarding digital landscapes. He is passionate about fortifying defenses and implementing proactive strategies in the constantly evolving cyber world.

The corporate landscape changes as Africa embraces the digital era, presenting a fertile ground for technical developments. However, with these advancements come new concerns—cybersecurity threats. Due to the exponential development in technology adoption, businesses across the continent have become key targets for cyberattacks, presenting a complicated web of difficulties that require fostered action.

An article published by the Daily Nation reports on a survey that the business, trade, and commerce sectors at 23.1 percent are vulnerable to cybercrimes, impacting the Kenyan economy from small businesses to large trade operations. Governmental bodies are not spared at 14.0% posing risks to public services and national security.

A notable incident that recently echoed across the continent involves a cyberattack that happened to Naivas, a big retail chain store in Kenya. According to the Senate ICT commission, Naivas might face a Kes 5 million penalty for failing to report a data breach within 72 hours, as mandated by the Data Protection Act of 2019. According to Immaculate Kassait, Data Commissioner, from the Office of Data Protection Commission, the incident resulted in data loss due to the illicit transfer of 611GB of personal data, as well as harming Naivas' reputation. Experts recommend creating strong security measures, timely reporting, personnel training, data protection rules, and regular monitoring to avoid such breaches.

The varied character of cyberattacks in Africa is caused by a variety of variables. Among these is the pervasive lack of cybersecurity awareness and skills within firms. Many businesses struggle with obsolete IT infrastructure, making them more vulnerable to intrusions. The lack of effective cybersecurity rules and procedures exacerbates the situation, leaving firms vulnerable to possible assaults.

Nonetheless, opportunities exist for African enterprises to strengthen their cyber defenses in the digital age. Defined by continual improvements, the importance of cybersecurity for African enterprises cannot be stressed enough. The ever-changing threat landscape needs proactive steps to increase awareness and fortify defenses. While activities like conferences, workshops, and campaigns are important, a holistic approach is required to cultivate a resilient cybersecurity culture.

Navigating the African cybersecurity landscape requires a comprehensive plan. This entails integrating various elements such as tailored training programs, collaborative information sharing, expert engagement, practical exercises, regulatory education, continuous monitoring, cultural assimilation, risk assessments, incident response drills, and the use of advanced technologies. This multimodal cybersecurity approach enables businesses to build their digital defenses, allowing them to protect their assets and thrive in a technologically advanced environment.

A continual commitment to keeping software and systems up to date with the most recent security updates dramatically improves an organization’s resistance to known vulnerabilities. Regular security audits and penetration testing, serve as preventative measures, identifying and correcting flaws before malicious actors exploit them. Investment in strong cybersecurity solutions, such as firewalls and encryption technologies, is critical.

Developing a comprehensive cybersecurity incident response strategy is critical for effectively mitigating the aftermath of an attack, and limiting downtime and financial damages. Working with cybersecurity specialists to analyze threats, develop solutions, and provide continuing support can help strengthen an organization’s security posture.

Cybersecurity is no longer a peripheral concern, but rather an indispensable necessity for African enterprises of all sizes. Companies may protect their operations, maintain their reputation, and foster client trust by proactively bolstering their defenses. As technology evolves, it is critical to be watchful and agile in cybersecurity efforts in order to outmaneuver changing threats.

Investment in science and technology is key to an African economic boom

By Dr. Landry Signé from Cameroon. He is the Founding Co-Director of Globalization 4.0 and Fourth Industrial Revolution Initiative at Thunderbird School of Global Management and Fellow at Stanford University's Center for African Studies.

The African continent represents 20 percent of the earth's surface and is home to 1.3 billion people—likely reaching 2.53 billion people by 2050. It boasts 60 percent of the world's arable lands, large swathes of forests, 30 percent of the world's reserve of minerals, and the youngest population of any continent. Yet, despite these riches, it produces only 3 percent of global GDP, accounts for less than 3 percent of international trade (mainly primary commodities and natural resources), and shoulders 25 percent of the global disease burden. The picture is particularly bleak when it comes to research and innovation: Africa contributes just 2 percent of world research output, accounts for only 1.3 percent of research spending, and produces 0.1 percent of all patents.

How can a continent that has fueled the world's industrial revolutions, that helped drive the dominance of the mobile phone industry, and whose large store of rare earth minerals is integral to the global green energy transition tolerate such dismal statistics?

A lack of investment in science and technology has undermined Africa's economic transformation at both the structural level (the shift of workers and resources from low- to higher-productivity sectors) and the sectoral level (the growth of productivity within sectors). This lack of investment has had far-reaching consequences: Without the economic and scientific infrastructure necessary for innovation, the continent has continued to rely on the colonial development model of resource extraction, which is both unsustainable and largely responsible for its debilitating poverty and aid dependency. These challenges have been compounded by economic fragmentation, as smaller markets constrain the long-term investments and patient capital that would foster innovation and drive technology transfer in the context of globalization.

The silver lining is that there is potential here with a growing recognition by policymakers of the role that science and technology can play in achieving national development goals and transforming Africa's economic growth story. Moreover, given the positive correlation between growth and environments that beget competition and innovation, competitiveness must be fostered.

Thus, African countries must create an enabling environment through pro-innovation, pro-science, and pro-technology policies dedicated to overcoming barriers related to regulation, corruption, and investment, while enabling private-sector innovation, adaptation, and adoption. At the same time, African governments must also invest in creating an ecosystem that facilitates investment in science and technology in a way that will not just accelerate discovery but allow innovations to enter the marketplace more quickly.

The tide of Africa's brain drain must be reversed by creating a world-class education and research infrastructure that will keep the best minds on the continent and attract new ones.

Bridging the skills deficiency gap in science, technology, and innovation is vital to unlocking Africa's potential and accelerating economic growth and prosperity. The best-trained, most talented researchers gravitate to environments where their work is leveraged by modern equipment, reliable utilities, and sufficient funding for supplies—and, perhaps most critically, where they can benefit from the presence of other talented people.

Thus, the tide of Africa's brain drain must be reversed by creating a world-class education and research infrastructure that will keep the best minds on the continent and attract new ones. Already, South Africa leads the way here, with a robust research system comprised of excellent universities and science facilities that allow it to be a full-fledged contributor to the global scientific community and an integral participant in international collaborations.

As human talent is developed across the continent, investment in research, science, and innovation will increase dramatically across various sectors, including manufacturing, which will be a significant factor in helping Africa realize its development potential and narrow its income and welfare gaps. Business-to-business spending in manufacturing in Africa is projected to reach $1 trillion by 2050—a trend that creates a massive opportunity for the continent's overall growth.

Creating an ecosystem where scientific culture can be central to economic transformation and policymaking decisions is a long-term investment that must not be at the mercy of either political or business cycles. Success will require effective tripartite (public-private-academia) collaborations and partnerships that will need to be sustained over time. If Africa can do this in the era of the African Continental Free Trade Area, the benefits of science, technology, and innovation can be marshaled for greater economic, social, and environmental sustainability, both on the continent and beyond.

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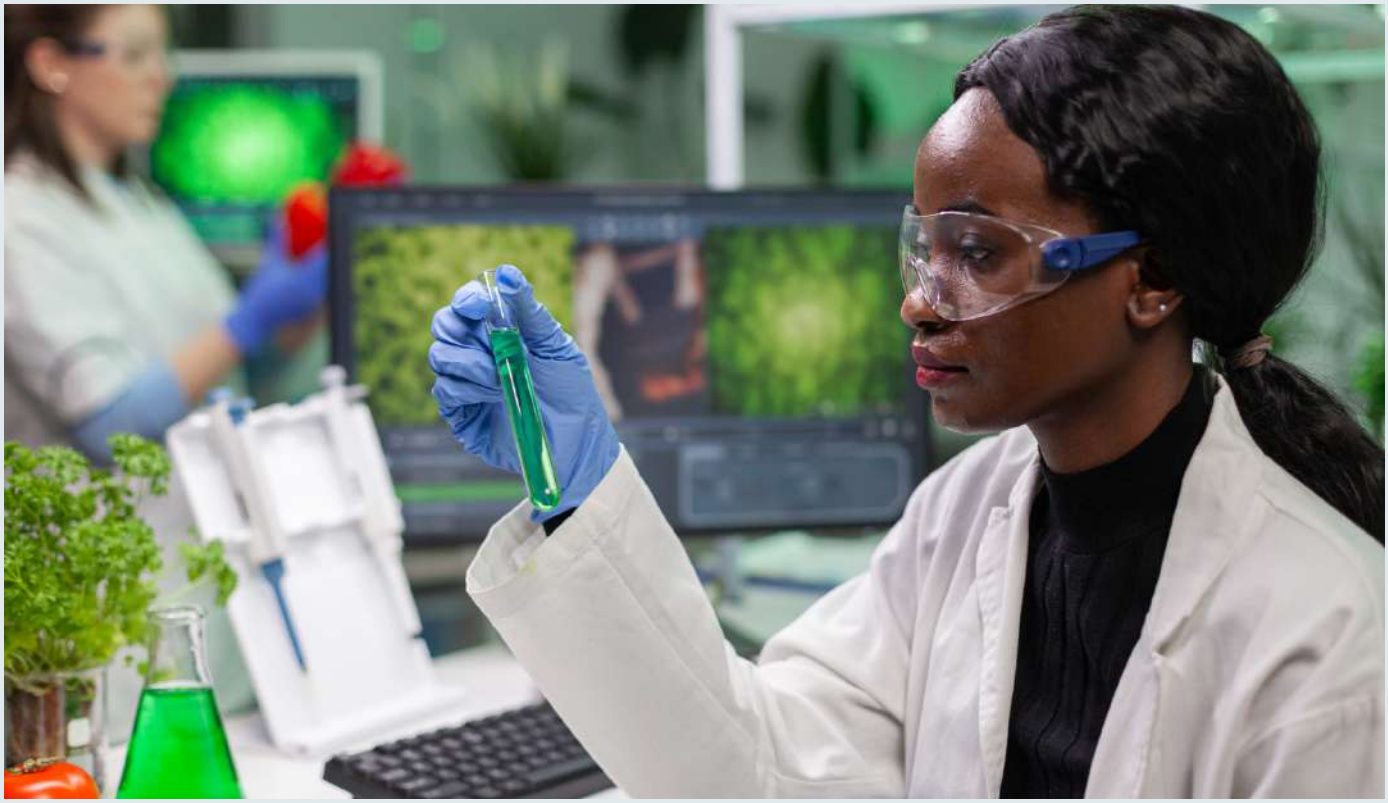

Communication Strategies for Advancing Science, Technology, and Innovation in Africa

By Conjesta Kadege Communications Specialist at Stamigold Biharamulo Mine, Tanzania

In the dynamic landscape of Africa's socio-economic development, the role of science, technology, and innovation (STI) has emerged as a pivotal force driving progress. As we navigate the challenges and opportunities presented by the 21st century, effective communication becomes an indispensable tool in fostering a climate where STI can flourish, ultimately propelling Africa towards sustained growth and prosperity.

The Power of Clear Communication in STI

At the heart of any successful STI initiative lies the need for clear, accessible, and widespread communication. Bridging the gap between scientists, policymakers, businesses, and the general public is crucial for creating an environment where innovative ideas can be shared, refined, and implemented. One key aspect of this communication is the ability to convey complex scientific concepts in a way that resonates with diverse audiences.

Scientists and researchers play a pivotal role in this process. By embracing effective science communication practices, they can demystify intricate ideas and make them relatable to policymakers and the public. This not only ensures a more informed and engaged society but also garners support for research endeavors that have the potential to transform industries and improve lives.

Enhancing Collaboration through Strategic Communication

The collaborative nature of STI requires a concerted effort in communication to break down silos and encourage interdisciplinary collaboration. Initiatives that promote dialogue between scientists, policymakers, and industry leaders can foster an ecosystem where knowledge flows seamlessly, leading to groundbreaking innovations.

Strategic communication also extends to international collaboration. Africa's STI community can benefit immensely from forming global partnerships. Communicating effectively on an international scale opens doors to shared resources, diverse perspectives, and collaborative projects that can accelerate progress. Initiatives like joint research programs, technology transfer agreements, and cross-border innovation hubs can be communicated strategically to attract global attention and participation.

Harnessing the Power of Digital Communication

In an era dominated by digital connectivity, leveraging technology for communication is paramount. Embracing digital platforms can amplify the reach and impact of STI initiatives. Social media, for instance, offers a direct channel to engage with a broad audience, share success stories, and create awareness about the importance of STI in driving development.

Furthermore, digital communication facilitates the democratization of information. Online platforms can be used to disseminate research findings, provide access to educational resources, and connect experts with aspiring innovators. By harnessing the power of the internet and digital media, Africa can ensure that STI-related information reaches even the remotest corners of the continent.

Championing Inclusivity in Communication

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Conclusion

Communication stands as a linchpin in the pursuit of advancing science, technology, and innovation for Africa's socio-economic development. As we navigate the intricate web of progress, strategic and inclusive communication emerges as a powerful catalyst, propelling the continent towards a future where innovation knows no bounds. By embracing a culture of effective communication, Africa can harness the full potential of its scientific prowess, ushering in an era of transformative growth and prosperity.

An Interview with the Global Huawei ICT Competition Winner on the Development of Cardio-Intelligent Monitoring Systems

Kariithi Anne Wanjiku, Electronics & Computer/Embedded Systems Engineer

1. Introduce yourself and tell us the course you are pursuing.

I am Kariithi Anne, a final year student at Jomo Kenyatta University of Agriculture and Technology currently in my final year pursuing a bachelors degree BSc. Electronics and Computer Engineering. I am a tech enthusiast, UI developer, and embedded systems Engineer.

2. Your innovation on the cardio-intelligent monitoring system (ICMS) saw you win the Global Huawei ICT Competition. Can you tell us about the inspiration behind the development of this system?

ICMS was birthed by a group of friends in August 2022. We identified a gap in the health sector and we thought to bring our brains together and help solve it. Currently, cardiovascular disease has been the leading course of death in the country and globally contributing to at least 25% of all admissions in Kenya and 13% of all deaths in Kenya back in 2019 as reported by WHO. Other than the increase in mortalities, it is also a burden to these families in terms of resources required to seek medical attention. It was therefore prudent to come up with a solution that addressed the problems stated above among others.

3. The cardio-intelligent monitoring system utilizes advanced algorithms. Could you explain how these algorithms work and their significance in monitoring and analyzing vital signs?

Our device is three parts in one robust system that allows doctors to monitor their patients remotely. We have an embedded systems side, a machine learning aspect, and the frontend side. We leveraged the use of Artificial Intelligence to allow us to make predictions on the patients' vitals specifically the ECG. An ECG shows the electrical activities of the heart from which doctors can asses and see whether the heart's rhythm is normal or not. The model is therefore in a position to do the same and it also has some classification algorithms which will classify the data as either normal or not, learn from its past data, and be in a position to predict future conditions. This will help reduce mortality rates as future heart problems will be identified in time before they happen. Interesting right?

4. Could you share some of the challenges your team faced during the development process, and how you overcame them?

The biggest challenge that we encountered was access to patient data within our hospitals in Kenya. We do understand there is privacy to be looked into, but we thought hospitals would be more receptive to being part of the research process and not just the finished product. However, I would like to thank our supervisor Mr. Phillip Oyier who helped us get the necessary compliance documents which allowed full cooperation with hospitals contributing to the general success of our project.

Another challenge was the lack of a Printed Circuit Board (PCB) in Kenya. As I had mentioned, our systems also involve an embedded system, which is the physical monitoring device. We designed PCB schematics for the electrical outlook of the product and were forced to send these files to China to get our boards fabricated.

5. Being the only female member of the team, how has your experience and what advice do you have for other young women considering a career in science, technology, and innovation?

I would say that there is no such thing as a male-dominated field. I see where that is coming from, however, I believe that with will and effort, women are also as smart and as able to thrive in the so-called male-dominated field. My teammates were open to working with me and I was also the team leader, that speaks a lot I should say. My advice to other young women who might feel threatened, I say to you don't. We have the brains; we know our skills and our potential and we are as much entitled to be in these fields as our fellow men. Therefore, my parting shot to all women would be, let us not shy away from great opportunities, let's always be willing to put the best versions of ourselves out there and thrive; because we are capable.

6. Can you share any plans or developments your team has in mind for the cardio-intelligent monitoring system?

We have started repackaging our product and making it as easy to use for the target audience. We want to scale it down to a wearable device, like a wristwatch, a patch that can be sown in clothes and are working to integrate it into the pacemakers for more accurate and quality monitoring. We would also like to work with all potential partners, hospitals, and governments to bring ICMS to market and help us curb the high mortality rates due to cardiovascular disease.

7. In your opinion, how can the academic and research community better support and encourage young innovators like yourself, especially in the fields of science, technology, and innovation?

This can be achieved through the inter-collaboration of different institutes in coming up with platforms that allow students and youth, in general, to pitch their innovations and get support into transitioning these ideas into actual products. However, I must say that young innovators should also put themselves out there, boldly pitch their ideas, and leverage the hackathons or small competitions that are arranged locally by schools or NGOs.

ATPS Executive Director Advocates for Africa's STI Future at AU Consultative Meeting

ATPS Executive Director Prof. Nicholas Ozor speaking at the African Union Consultative Meeting on Science, Technology, and Innovation Strategy for Africa (STISA) 2034 on 8th November 2023 in Cape Town, South Africa.

In a significant stride towards shaping the future of Science, Technology, and Innovation (STI) in Africa, Prof. Nicholas Ozor, the Executive Director of the African Technology Policy Studies Network (ATPS), represented the organization at the African Union Consultative Meeting on the Science, Technology, and Innovation Strategy for Africa (STISA) 2034.

The pivotal gathering, held from the 7th to the 8th of November 2023 in Cape Town, South Africa, brought together stakeholders from across the continent to draft the strategy that will guide Africa's STI landscape for the next decade. The original 10-year STISA strategy, launched in 2014, played a crucial role in propelling Africa's technological advancement over the past decade. As it nears its conclusion in 2024, the need for a new roadmap that aligns with the continent's evolving needs and priorities becomes increasingly evident.

Prof. Ozor, renowned for his expertise in STI research and policy in Africa, actively contributed to this significant process. His participation not only represents ATPS but also underscores the organization's commitment to advancing sustainable STI for development in Africa.

At the heart of Professor Ozor's advocacy is the push for policies and strategies that foster the growth of Africa's STI sector.

Prof. Ozor and other participants at STISA 2023 pose for a group photo on 8th November 2023 in Cape Town, South Africa

This proactive approach aims to address the pressing societal challenges facing the continent and ensure that Africa remains a leader in global innovation.

As the meeting progresses, stakeholders from diverse backgrounds are collaboratively defining strategies and priority areas that will pave the way for a more innovative, technologically advanced, and sustainable future for Africa. Professor Ozor's involvement reflects ATPS's dedication to being at the forefront of shaping Africa's STI landscape, driving positive change and innovation for sustainable development.

The ATPS community eagerly awaits the outcomes of this consultative meeting, recognizing the potential impact on Africa's future trajectory in Science, Technology, and Innovation.

Prof. Nicholas Ozor Attains Professorship Milestone in Public Policy

ATPS Executive Director Professor Nicholas Ozor.

In a momentous academic achievement, Professor Nicholas Ozor, the Executive Director of the African Technology Policy Studies Network (ATPS), has reached the prestigious rank of Professor of Public Policy. Widely respected in academic circles, Prof. Ozor holds a double Ph.D., with one in Agricultural Extension from the University of Nigeria and another in International & Rural Development from the University of Reading, United Kingdom.

His stellar expertise and significant contributions in the realm of Science, Technology, and Innovation (STI) policy have built upon the successes of his predecessors, positioning ATPS as Africa's foremost STI Policy Think Tank. Throughout his illustrious career, Prof. Ozor has played pivotal roles in various internationally funded research projects, encompassing critical areas such as STI, agriculture and food systems, climate change, policy development, technology management, and private sector engagements.

Prof. Ozor's dedication to advancing sustainable development initiatives in Africa is exemplified by his successful efforts in securing over 60 million USD in grants. A prolific academic, his body of work comprises over 150 articles published in reputable international peer-reviewed journals and other multimedia platforms, leaving a substantial impact in both academic and practical spheres.

A celebratory dinner held to mark Prof. Ozor's academic milestone was attended by his family, including his wife and three children, as well as esteemed colleagues and partners. During the event, Professor Ozor was praised as a visionary leader who has consistently guided the organization to greater heights.

As Prof. Ozor assumes his new role as a Professor of Public Policy, ATPS eagerly anticipates benefiting from his extensive knowledge and experience. The organization looks forward to continuing its journey of driving positive change and sustainable development across the African continent, particularly in utilizing research evidence to inform policy and practice.

The Heads of Research Councils and Coordinators from Burkina Faso, Côte d'Ivoire, Senegal, Ghana, and Sierra Leone, along with ATPS and AUST partners in the SRIFA Project, convened at the Science Granting Councils Initiative (SGCI) Annual Forum and the Global Research Council (GRC) Sub-Saharan Africa Regional Meeting on November 14, 2023, in Mombasa, Kenya.

ATPS Executive Director Prof. Nicholas Ozor, ATPS Postdoctoral Research Officer Dr. Cynthia Nwobodo, and Professor Peter Onwualu of the African University of Science & Technology (AUST) posing for a photo during the Science Granting Councils Initiative (SGCI) Annual Forum and the Global Research Council (GRC) Sub-Saharan Africa Regional Meeting.

Participants at the LULUCF Research workshop pose for a group photo on 26th September 2023.

Prof. Nicholas Ozor, the Executive Director of the African Technology Policy Studies Network (ATPS) delivering a keynote presentation during the Land Use, Land Use Change and Forestry (LULUCF) Impacts in Sub-Saharan Africa workshop on 26 September 2023, in Ghana.

Participants at the "Design by Inclusion" workshop for the Gender Innovation Challenge Project held on November 8-9, 2023, at Enziani Town, Nsukka, Enugu, Nigeria

ATPS Staff, partners from Initiative Prospective Agricole et Rurale (IPAR), Senegal, and West African Green Economic Development Institute (WAGEDI), Nigeria during a SCALE Project implementation meeting held on 14th December 2023

ATPS Executive Director Prof. Nicholas Ozor participating in a panel discussion on "Re-imagining University Ecosystems for the Future" during the Dissemination Conference of the Accelerating Entrepreneurship Support in Universities (AESU) program at Mercure hotel in Nairobi on 23rd November 2023.

Prof. Nicholas Ozor contributing his insights during the the Dissemination Conference of the Accelerating Entrepreneurship Support in Universities (AESU) program.

ATPS Research Officer Wentland Muhatia and ATPS Communication & Outreach Officer Susan Mburu also attended the Dissemination Conference of the Accelerating Entrepreneurship Support in Universities (AESU) program.

Prof. Nicholas Ozor receives a gift from Charity Njimu of Riara University for his contribution during the Dissemination Conference of the Accelerating Entrepreneurship Support in Universities (AESU) program.

Prof.Nicholas Ozor, the Executive Director of the African Technology Policy Studies Network (ATPS) during an interview on the "Business Check Show" on KBC National Broadcast in Kenya.

Business Check Show host O'Brien Kimani, Prof. Nicholas Ozor, Executive Director of the African Technology Policy Studies Network (ATPS), and Dr. Joseph Sang from Jomo Kenyatta University of Agriculture and Technology (JKUAT) pose for a photo after a live interview on the TV show.

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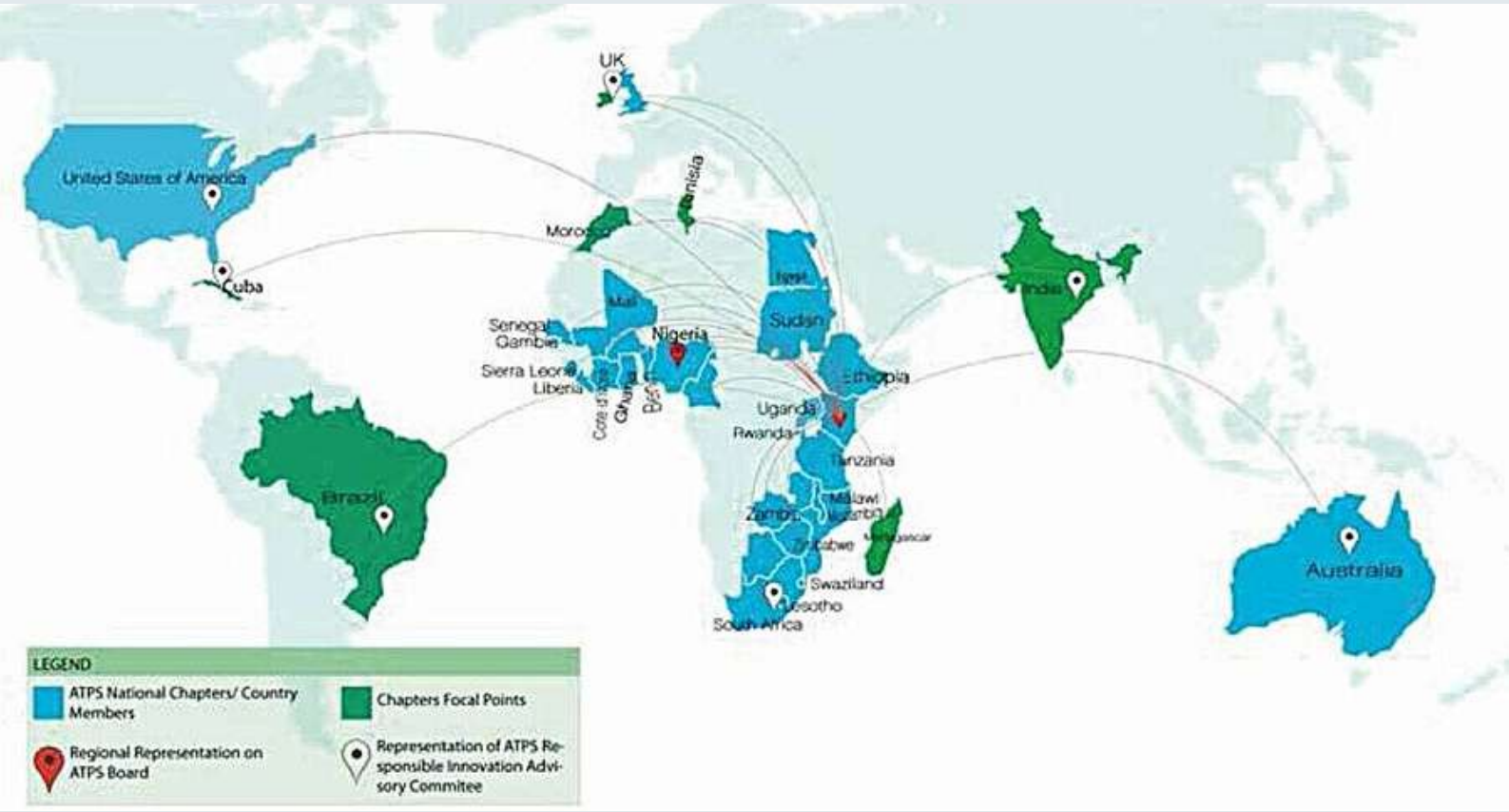

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MERRY

Christmas

& HAPPY NEW YEAR