



SOUTH SUDAN IGF 2024 REPORT

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Content

[South Sudan IGF 2024 at a Glance](#)

[South Sudan IGF 2024 Quotes](#)

[Keynote Speech](#)

[South Sudan IGF 2024 Themes](#)

[Moderated Plenary: Digital content and Community Standards](#)

[Panel Discussion: Internet and Good Governance](#)

[Moderated Plenary:
Capacity Building and Education: Empowering
Stakeholders in the age of Emerging Technologies and AI](#)

[Panel Discussion: Disparities in Digital Access in South Sudan](#)

[Annex A: Event Schedule](#)

[Annex B: South Sudan IGF Conveners and Partners](#)

Glossary

Ad: Advertisement

AI: Artificial Intelligence

CBD: Central Bank Digital Currency

CEO: Chief Executive Officer

CSO: Civil Society Organization

DG: Director General

E-BANKING: Electronic Banking

FINTECH: Financial Technology

GOSS: Government of South Sudan

GSMA: Global System for Mobile communications Association

IGF: Internet Governance Forum

ICT: Information and Communication Technology

IT: Information Technology

ISPs: Internet Service Providers

IXP: Internet Exchange Point

LLM: Large Language Model

MOMO: Mobile Money

NCA: National Communication Authority

PWDs: Persons with Disabilities

ROAM-X: Rights, Openness, Access, Multi-stakeholder and Cross-cutting issues

SS-IGF: South Sudan Internet Governance Forum.

SSP: South Sudanese Pound

TELECOM: Telecommunication

UNESCO: United Nations Educational, Scientific and Cultural Organization

USAF: Universal Service and Access Fund

WGIG: Working Group on Internet Governance

WSIS: World Summit on the Information Society

Internet Governance Forum

According to the Working Group on Internet Governance (WGIG) which was established during the World Summit on Information Society, Internet Governance is defined as the development and application by governments, private sectors, and civil society in their respective roles of shared principles, norms, rules, decision making procedures and programs that shape the evolution and use of the Internet.

The Internet Governance Forum (IGF) process was introduced in African countries at the end of the World Summit on the Information Society (WSIS) which provided the initial mandate. Since then, three African countries have hosted the global IGFs namely Egypt in 2009, Kenya in 2011 and Ethiopia in 2022.

The World Summit on the Information Society (WSIS) held in Geneva 2003 and Tunis 2005 respectively have officially placed the question of Internet Governance on diplomatic agendas that led to the formal establishment of the Internet Governance Forum (IGF) by the United Nations Secretary General in 2006, with the first meeting being held in October 2006 (Athens, Greece).

The IGF serves as a platform that brings people together from various stakeholder groups representing government, civil society, the technical community, academia, private sector intergovernmental and international organizations as equals in discussions, exchanging information and sharing good policies and practices relating to the Internet and Technology.

The IGF helps to facilitate a common understanding of how to maximize Internet opportunities and address existent and foreseeable challenges through a bottom-up, open, transparent and inclusive manner, Hence ensuring sustainable and reliable Internet for socioeconomic development.

Foreward



Eng. Unguec Stephen Kang
Chairperson, South Sudan IGF

Honored guests, distinguished stakeholders, and participants, a warm welcome to the 2024 edition of the South Sudan Internet Governance Forum. It is a great pleasure to see such a diverse gathering of individuals and organizations committed to shaping our digital future. This year's theme, **“Building Our Multi-Stakeholder Digital Future in South Sudan,”** sets the tone for the discussions and collaborations we hope to foster today.

We are at a crucial juncture in South Sudan's digital journey, where the internet is becoming a crucial driver of development, innovation, and social transformation. However, with this growth comes the need to establish strong foundations that ensure the Internet remains a force for good, a platform for empowerment, education, and economic opportunity. Our forum today will address several critical aspects of this journey, beginning with our keynote on the importance of multi-Stakeholder.

Collaboration in Digital Transformation. This is a reflection of our collective responsibility to ensure that every sector, government, private,

civil society, and the technical community plays an active role in the governance of our digital space.

In the moderated plenary on Digital Content and Community Standards, we will explore how we can promote responsible digital citizenship, address harmful societal norms, and protect the freedom of expression while ensuring privacy and respect online. The discussions will highlight the importance of policies that balance freedom with accountability, ensuring our online environment is safe, inclusive, and vibrant.

We will also dive deep into sessions on misinformation, digital access disparities, and the role of emerging technologies like AI. These topics are not just timely but essential as we work to bridge the digital divide, combat online disinformation, and prepare our nation to thrive in an increasingly digital world.

I encourage each of you to engage openly in these discussions, share your insights, and work together to draft strategies that can help us build a stronger digital future for South Sudan. This forum is more than just a dialogue, it is an opportunity to lay the groundwork for policies and practices that will shape the internet for generations to come.

Once again, I welcome you all and look forward to the fruitful conversations ahead.

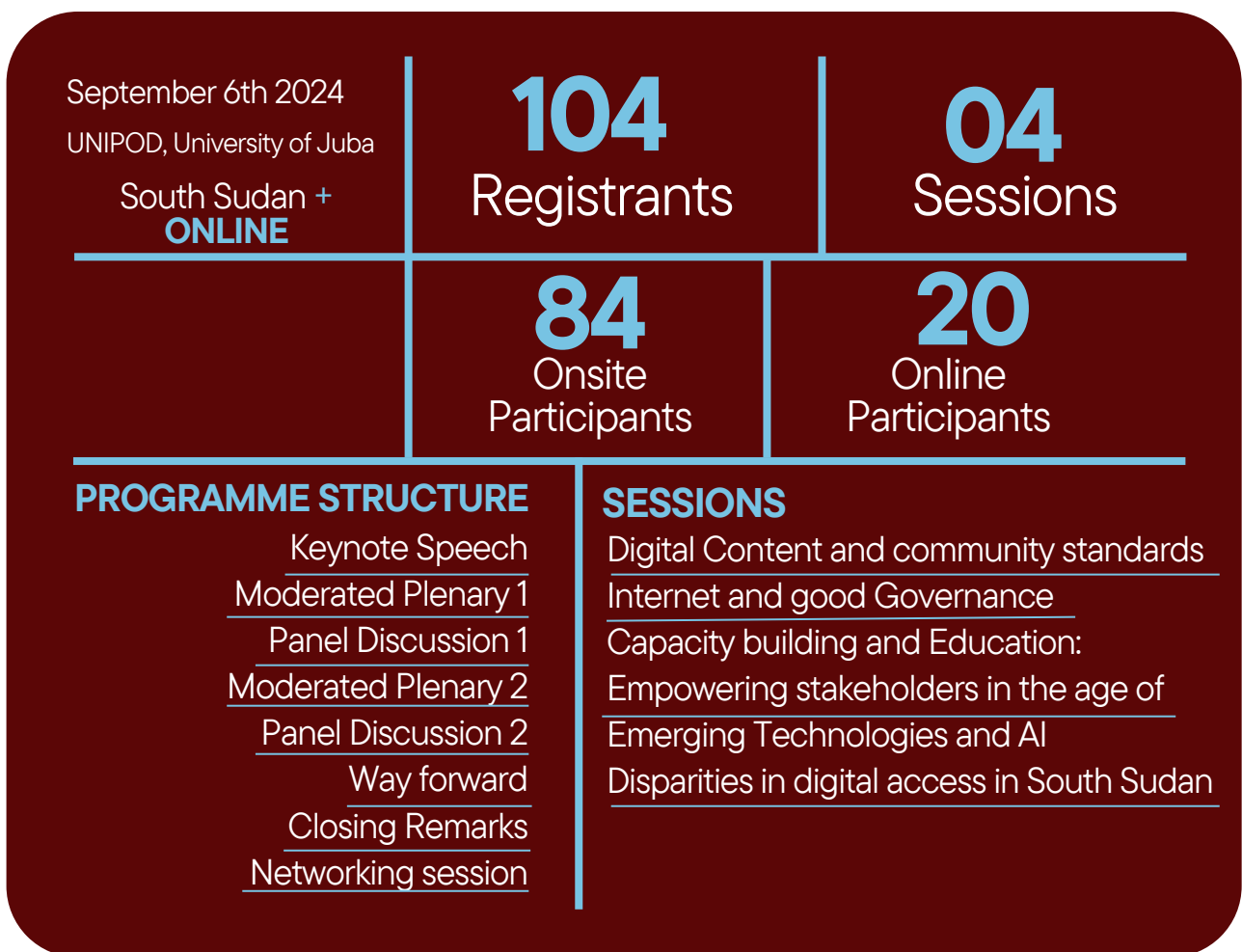
Thank you.

South Sudan IGF at a Glance

In 2024, South Sudan held its 3rd annual IGF under the theme, **“Building Our Multi-Stakeholder Digital Future in South Sudan.”** The forum was held in a hybrid format with the onsite format being held at the University Innovation pod, UNIPOD, University of Juba.

The forum featured discussions on some of the most pressing Internet and policy issues in South Sudan, from emerging technologies, Internet and cybersecurity, ICT and AI policies, Community standards, and digital inclusion for all including PWDs.

Building Our Multi-Stakeholder Digital Future in South Sudan



INTERNET PERFORMANCE FORUM 2024

*Multi-stakeholder
Dialogue in South Sudan*



SOUTH SUDAN IGF 2024 QUOTES

“Anything that slows down the development of the internet, we like to pay attention to it. So in the technology space, anything about technology excites me.”

Joseph Abuni Gama, President, Internet Society South Sudan Chapter

“We know the rate of Internet usage is growing very rapidly in our country and this has opened ways for opportunities and also appropriate challenges in our country.”

Tony Kenyi, Incident Handler, Safetycomm South Sudan

“Persons With Disabilities are often left behind and few of them get opportunities to go to school and those who are able to go to school have a limitation in the level of technology.”

Catherine Sensio, Member, Union of PWD

“Emphasizing cashless transactions reduces theft risks. Mis-selling in banking often leads to misinformation, and we have strong policies to combat it. We contribute to preventing misinformation and ensure data privacy to protect customer information from misuse.”

James Okuku, Stanbic Bank, South Sudan

“Misinformation starts with us; information is found within. You must study yourself.”

Esther Keji, Hagiga Wahid



Keynote Speech



Eng. Napoleon Adok Gai
Director General Nation
Communication Authority

Good Morning, everyone.

I am truly delighted to be here today at the South Sudan Internet Governance Forum. This gathering embodies the spirit of collaboration and inclusivity that is so crucial for our collective digital future. I want to extend my warmest greetings to all of you colleagues from the government, private sector leaders, civil society representatives, academics, and the professional community. Your presence here speaks volumes about your commitment to building a digital future for South Sudan that is inclusive, secure, and prosperous for all.

As we gather here today, I am reminded of a visit I made earlier this year to a small community on the outskirts of Juba. What struck me most was how something as simple as access to digital tools, whether it be mobile phones or internet connectivity, was making a profound difference in the lives of young people. One young man told me how he learned new skills online, skills that helped him start a small business and support his family.

It is stories like these that remind us of the transformative power of technology and the importance of ensuring that everyone, no matter where they live, can participate in our digital future. Today's theme, "**Building Our Multi-Stakeholder Digital Future in South Sudan,**" couldn't be more fitting. As many of you know, South Sudan is in the process of developing its Digital Transformation Strategy, a strategy that is not just about technology but about people, communities, and creating opportunities for every South Sudanese citizen. But we must also recognize the significant challenges we face. South Sudan is a new arrival to the technological and information driven society in the world, and we are still building the necessary digital infrastructure to support widespread connectivity demands. Many of our communities remain under served, unconnected and largely digitally disenfranchised. Beyond infrastructure, we also face issues around digital literacy and security both of which must be addressed to ensure our digital transformation benefits all South Sudanese citizens. We cannot shy away from these challenges, but rather, we must confront them head-on, together, with determination and innovation. From our experiences, it has become abundantly clear that building a digital future is not something any single entity can achieve alone. It requires all of us governments to provide relevant policy and regulatory frameworks, the private sector to drive innovation, civil society to advocate and sensitize relevant issues, academia to foster knowledge, and international partners to offer support and share best practices.

While we greatly appreciate the expertise and resources provided by our international partners, we must ensure that these collaborations align with the unique needs and circumstances found in our country today. For example, in our work with the International Telecommunication Union, we have focused not just on adopting global standards, but also on localizing these frameworks to fit our specific challenges and opportunities. It's not about copy-pasting solutions from elsewhere, it's about tailoring them to fit our own vision for digital growth. As we engage in today's discussions, I ask each of you to think about how we can take tangible steps forward.

- To the Government representatives, let us consider how our policies can be more inclusive and responsive to the needs of the people.
- To the Private sector leaders, I challenge you to explore how your innovations can reach even the most remote parts of our country.
- To the Civil society, your role in bridging the digital divide and advocating for those who are often left behind is more important than ever.
- To the Academia and all learning institutions, your research and education will drive the next generation of digital leaders in South Sudan.
- And to our international partners, I appeal for your support, but with a focus on sustainable and locally-driven solutions.

We are just at the beginning of this journey, and the road ahead will not always be easy. But I am confident that through collaboration, transparency, and shared responsibility, we can overcome these challenges. As we have seen in the development of our Digital Transformation Strategy, when we come together, government, private sector leaders, civil society advocates, and citizens—remarkable things happen. Together, we can build a digital ecosystem that is not only robust and innovative but also inclusive and equitable.

In closing, I want to leave you with this: digital transformation is not about the technology itself, but about how it empowers our people and strengthens our communities. It's about ensuring that every South Sudanese, whether in a city or a remote village, can access the opportunities that come with a connected world. Let us commit to building a digital society that not only transforms how we communicate and do business but also uplifts, unites, and empowers us all.

Thank you, and I look forward to the rich discussions we will have today.

South Sudan IGF 2024 Themes

The main theme for this year's IGF is **Building our Multistakeholder Digital Future**.

The theme encourages collaboration among stakeholders, seeks to address the challenges of rapid digital transformation, to harness the potential of digital innovation, to promote human rights and inclusion in the digital age, and to improve digital governance.

The South Sudan IGF chapter organised sessions around the following sub themes:

- Harnessing innovation
- Enhancing digital contribution
- Advancing human rights
- Improving digital governance

From the above sub themes, the following sessions were organised:

- Digital Content and community standards.
- Internet and good Governance.
- Capacity building and Education: Empowering stakeholders in the age of Emerging Technologies and AI.
- Disparities in digital access in South Sudan.



Moderated Plenary: Digital Content and Community Standards

Moderator: Nelson Kwaje

In the panel opening remarks by the moderator, he noted that digital content is a very prevalent thing in our society today. In this session, the panel explored how community standards and standards could be developed to help in managing digital content in South Sudan as well as enabling digital content platforms like Facebook to adapt such standards when they come into the country. They also discussed some harmful practices and how they manifest online.

Panelists

Wani Stephen, Technology Lawyer

Q. What are some of the issues that come to content online When it comes to South Sudan issues that are related to harmful content online or a standard that needs to be developed? Why is it important to have community standards?

Community standards in very simple terms are the norms and the rules that basically guide the relationship between users and also the platform. When we look into our context in South Sudan, we realize that there is a lot of harmful content being shared online, for example, pornographic content. People think that they can create and post or publish anything online, including pornographic content, right; and or indecent content and also disinformation, and child pornographic content.

Tony Kenyi, Incident Response Lead, SafetyComm

Q. What kind of incidents do you usually respond to when it comes to even harmful content when it comes to harmful content?

The kind of incidents that I always receive and work on include pornographic content, which we call revenge porn. Some of you might have heard about it, revenge porn is an act or certain behavior where an individual is being targeted by a beloved one or somebody whom he or she doesn't know by sharing explicit videos and images online, which later on can lead to psychological and serious stress. So when we receive such a case at safetyComm we do look into it, we investigate it, and then we try our level best to at least mitigate the risk, and also reach out to Meta to at least take down the content. The other harmful content is based on phishing or scam that is seriously rising these days in South Sudan. We know the rate of Internet usage in our country is growing rapidly, and this has opened ways for opportunities and also has opened ways for challenges. For example with young people, the majority of South Sudanese are so ambitious about their future, but there are so many fake job advertisements being shared and there are people who have fallen victim to such phishing scams; and by providing their personal information, of course they become victims. So when we receive such cases at SafetyComm, we handle them at our level by taking down that specific page that is promoting such content, or all the time advertising such content.

We also receive cases of hacked accounts, whereby people are also being scammed, and they lose access to their user accounts, and somebody will impersonate them, and yet impersonation is against community standards.

Joseph Abuni Gama, President, Internet Society South Sudan Chapter

Q. What are some of the discussions in terms of policy, and even localizing some of the policies, so that it fits into our own narrative and also protects us from these harms?

These community standards are usually these rules and norms that have been put in place for people who use the Internet to work in a conducive and good online environment. Today, the world has become digital in the sense that someone can be based in some village in South Africa and be able to provide a solution or a service here in South Sudan. So we are basically quite interconnected. So because of this interconnectivity, you will find the rules that would apply in that village that is based in South Africa would become a rule that would apply across the borders that you would find here in South Sudan. So for us as an Internet society that has been set up this year, we are very glad that we don't have to invent the wheel. A lot of these things are already out there as of today, Facebook does not have a physical office in Juba here but wherever they are, they have set standards for us here in South Sudan on how we should use Facebook. So as an Internet Society the question would be, how do we adapt some of these rules to our local context? The principles remain the same but maybe there will be some small tweaking that needs to be put in place. Also, those rules have to be contextualized to our setting.

Audience

The audience discussed and echoed the following concerns:

1. Inclusion of PWDs in discussions related to internet governance and digital inclusion.
2. It is very difficult for community standards to be implemented if people are using coded language like emojis to communicate, how can those be interpreted?
3. What is the process of filing a complaint when community standards have been violated and how much is the community aware of the existence of initiatives like Safetycomm, and what is the reach of such initiatives?

James Mayen, a university student asked about the Meta Oversight board and how independent and impartial they are when dealing with decision making when it comes to content moderation. He also asked about how Meta incorporates feedback from the oversight board to its user community.



PANEL DISCUSSION:

Internet And Good Governance

Moderator:

Paul Lomu

Panelists

- Michael Mukasa, CEO Liquid Intelligent Technologies, South Sudan & Uganda
- James Okuku, Stanbic Bank, South Sudan
- Dut Majak, Bank of South Sudan
- Esther Keji, Hagiga Wahid

Overview: Addressing Misinformation, Disinformation, and Cashless Society

This panel discussed the consequences of misinformation, emphasizing the need to understand the intentions behind false information. Drawing examples from personal experiences and social media, they illustrated how assumptions and falsehoods spread. The session addressed technology's role in this issue and social media's responsibility to mitigate it, suggesting platforms should improve their efforts in correcting false information. The discussion also touched on South Sudan's transition to a cashless economy, highlighting growth in Fintech and potential collaboration to reduce cash transactions.

The conversation concluded with a call for developing technology infrastructure to support a cashless economy and a partnership between Internet Service Providers and the Bank of South Sudan to enhance data center capabilities.

South Sudan Context - Mobile connection, internet penetration, and social media access and use.

- Mobile connection in South Sudan in 2024: This data comes from Gsma, an analytical site. It shows that at the start of 2024, there were around 3.97 million cellular mobile connectors in South Sudan. It's essential to recognize that many people worldwide use different mobile devices. You are considered a mobile user if you have two or three SIM cards. GMSA intelligence numbers indicate that mobile connections in South Sudan were equivalent to 35.5% of the total population in January 2024. Between the start of 2023 and 2024, the number of mobile connections in South Sudan increased by 285,000, or 7 plus 0.7%.



- At the beginning of 2023, South Sudan's Internet penetration rate reached 7.0% of the total population. According to Kepios's analysis, the number of internet users in South Sudan grew by 55,000 (+7.6 percent) from 2022 to 2023. We thank NCA and its partners for expanding network connectivity to more people in our remote regions.
- Social Media statistics for South Sudan. For the year 2024, from data reportal, the figure shows that there were 739.0 thousand active social media user identities. In January 2024, the number of social media users in South Sudan at the start of 2024 was equivalent to 6.6 percent of the total population. However, it is important to stress that social media users may not present unique individuals.
- Data from ad planning tools reveals that in South Sudan, as of early 2024, there are approximately 738,500 social media users aged 18 and older. This figure represents 13.3% of the country's total population in this age group and accounts for 54.4% of the total internet users, regardless of age, using at least one social media platform. This suggests that access to information is on the rise. 28.5% of South Sudan social media users were female, while 71.5% were male in January 2024.
- In 2018, an expert predicted a cashless future was 2 to 3 generations away. Now, 2 years later, Covid has accelerated this trend. The fear of transmission and lockdowns fueled a rise in online shopping and cashless payments worldwide.
- As consumers continue to embrace the legacy of the pandemic, and as such, in finance technologies, cash payments are expected to continue declining in the coming years.

The shift towards a cashless society has been gaining ground for some time.

- Sweden, for example, was the first European country to introduce banknotes in 1661. If you weren't aware, it has also become the world's first cashless society as of March 2023. Finland and the UK are also among the top ranks in transitioning to cashless societies.
- In Africa, solutions like M-Pesa have pioneered branchless banking through straightforward mobile interfaces, accelerating the transition from cash-dominated economies to a cashless society with transformative outcomes.
- In South Sudan, M. Gurush is a South Sudanese mobile payment service that allows you to send and receive money and pay for goods and services.
- For example, I buy my Jedco tokens using M-Gurush. I no longer wait in line at Jedco offices. You can make purchases at any time. You can pay for utilities. Bills like power allow for bulk payments and international remittances; in Kenya, for instance, they have advanced significantly in the region. If you visit a hospital, you don't need to carry cash; they will ask you to deposit money into your M-Pesa so you can transact with the hospital or the airport anywhere.

Platforms that are common mainly in South Sudan.

- Facebook users in South Sudan data published in Meta Advertiser. Advertising resources indicate that Facebook had 7391,000 users in South Sudan in early 2024.
- Instagram users in South Sudan. Numbers published in Meta Advertising tools indicate that Instagram had 58.7,000 users in South Sudan in early 2024.
- TikTok users are associated with the figures published in ByteDance advertising resources, which indicate that TikTok had 324 1,000 users, aged 18 and above, in South Sudan in early 2024. ByteDance allows marketers to target TikTok ads to users aged 13 and above via its advertising tools. However, these tools only show audience data for users aged 18 and above.
- For South Sudan context, figures indicated that TikTok ads reach 5.8% of all adults, age 18 and above, at the start of 2024. Meanwhile, TikTok's ad reach in South Sudan was equivalent to 23.9% of the local Internet user base at the beginning of the year, regardless of age, in early 2024. 31.5% of TikTok's audience in South Sudan were female, while 60 68.5% were male.
- LinkedIn had 82,000 members in South Sudan in early 2024. The company's advertising-rich figures suggest that LinkedIn's audience was equivalent to 0.7% of the total population at the start of 2024. LinkedIn prevents people under 18 from using its platform.1.5% of the eligible audience in Sudan used LinkedIn in 2024.

- The ads from LinkedIn in South Sudan were equivalent to 6.0% of the local Internet user base, regardless of age at the start of the year. In early 2024, 23.5% of the LinkedIn audience in South Sudan were female, and 76.5% were male.

Panel

Access to Information and how it enhances democratic governance and civic participation

The panelists highlighted issues like the importance of having access to accurate information for guiding decision making. Shared information empowers individuals to make informed choices, support democracy and effective governance.

In transaction banking, emphasis is put on having the right information, for example, when one opens a bank account, they are entitled to knowing all relevant details. If this information is not received and issues arise, a customer has the right to challenge them. For instance, should a customer get a loan without the bank explaining all the terms and conditions, and complications that occur, the customer can rightfully assert that the bank failed to provide the necessary information, potentially impacting their ability to repay.

In South Sudan, the Information Act 2023, governs both online and offline access to information. Citizens have the right to all relevant information, while the government can also withhold information, clear processes exist to access it.

Information that can be shared and what the public has access to

Privacy policies are crucial when it comes to information sharing. If an individual shares information and does not authorise distribution, one cannot share it. This applies to personal photos and videos, nothing can be shared without permission. It's also vital to ensure the accuracy of shared information. Even in urgent situations, precise information is necessary to avoid confusion or harm. Misinformation can lead to fear and false rumors. Therefore, individuals should only share information if it is correct, and they have permission to do so. The Central Bank of South Sudan provides different types of information to the public; for example, to students, some information can be provided for research purposes, daily exchange rate information, and there is also relevant information available for financial institutions. However, there are procedures to be followed when trying to access that information, sometimes these procedures might involve getting a court order.

Regulatory status of Digital and Fintech Solutions in South Sudan, and potential investment opportunities.

A national payment system is being developed to facilitate and simplify transfer of money between commercial banks. Additionally, there exist mobile money platforms like Momo and M-Gurush that enable one to send money to other mobile money platforms within and outside South Sudan, like M-Pesa in Kenya. Going cashless is the culture which is currently being promoted in South Sudan because most people do not use banks at all and therefore keep cash at home.

Banks aim to minimise cash since handling it is costly, especially with inflation for instance, depositing 50 million could take two days to count. Moving money between accounts and wallets is now common, but banks face bureaucratic hurdles and often partner with Fintechs for solutions for quick response. In South Sudan, banks encourage organisations to transfer funds digitally from banks to wallets, reducing field payment issues and delays. However, a challenge exists with exchange rates; organisations receive official rates, while others use the black market for better rates. Closing this gap will encourage people to use wallets instead of US Dollars. Partnership is essential, but banks cannot do it alone; collaboration with Fintech is necessary. Also, all operations depend on reliable Internet, disruptions erode transaction trust yet a stable connectivity, users can send money effectively and with confidence.

Audience

Questions and Viewpoints from the audience:

- How do companies view small markets like South Sudan? Platforms like Meta might overlook these markets.
- A question about inflation and exchange rate policies for the Central Bank was raised; the recent introduction of smaller notes to reduce cash transactions but rather, how can people use mobile methods in poorly served areas?
- The economy needs diversification to control inflation and enhance the purchasing power of the local currency. What is the Bank of South Sudan doing?
- What is the role of technology, and how can global firms contribute to raising media literacy among the citizens of South Sudan?



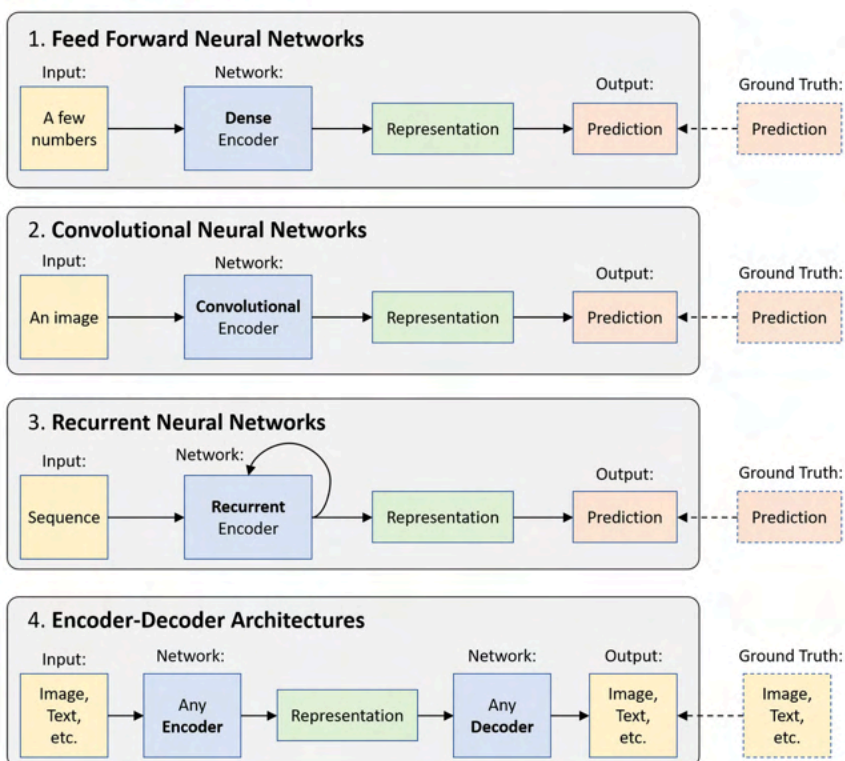
- How can governing bodies handle sensitive, business, and classified information once its integrity is compromised?
- Mobile service providers lost connectivity in December 2023 when network failures occurred. Mobile money agents reported encountering scammers who claimed they could resolve transaction problems, which led to financial losses. These events highlight the vulnerabilities between platforms like Momo and Mgurush and their agents, damaging customer trust. Improving public education efforts, raising awareness, and implementing measures to protect customers from fraud are paramount.
- Banks in South Sudan only approach NGOs and companies and vice versa rather than seeking customers. They should engage with university students to explain the benefits of opening accounts. Banks help build trust and confidence, encouraging the use of banks to keep money. Students represent future customers, which is essential for a cashless economy.
- What measures are being taken to engage grassroots communities? How can you encourage them to utilise banking services,

- given that many are unaware of the safety of keeping their money in a bank? This belief is why many prefer to store their cash at home. What initiatives are in place to tackle this issue?
- What are the plans of companies, organisations, and the Central Bank, when it comes to addressing the widespread disinformation and misinformation in South Sudan?

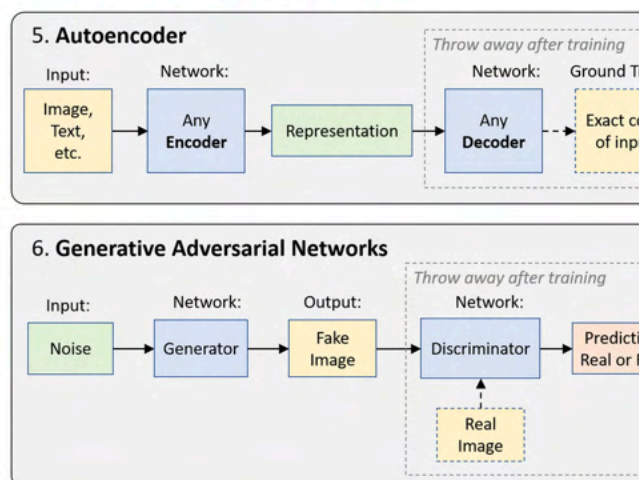
Conclusion

The distinction between misinformation and disinformation hinges on intent. It's crucial to consider the type of information you are sharing. Are you seeking to harm someone? If so, that's disinformation. Misinformation occurs when a person doesn't intend to cause harm and may not know whether the information is true or false. When posting on social media, you should verify the source of information before sharing to ensure its correctness and accuracy, thereby preventing the spread of misinformation or disinformation.

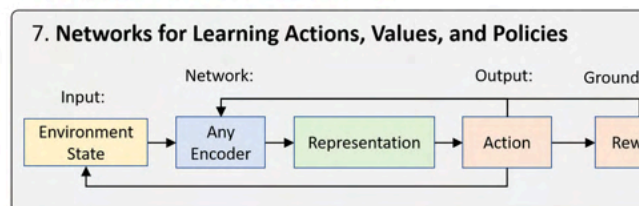
Supervised Learning



Unsupervised Learning



Reinforcement Learning



Moderated Plenary:

Capacity Building and Education: Empowering Stakeholders in the Age of Emerging Technologies and AI

Co-Moderated by Poni Henry and Eva Yayi

The session focused on the integration of emerging technologies, particularly artificial intelligence, in education and policy. Most or all South Sudanese local languages are not represented on social media platforms, language models to translate our languages are still yet to be developed. Making it difficult to translate or even implement community standards correctly especially if content is wrongly flagged as a result of wrong translations on the social media platforms. The plenary session was divided into two parts; a demo of LLMs in action translating from Juba Arabic to English using Google Colab notebook, and a presentation on AI ethics and policies.

Poni Henry, Co-Moderator and trainee Nyöket AI project

It has been an opportunity to learn about AI and building LLMs. Being part of the people that actually get to build AI models has been a very great experience. And as Sarah said, we are still in the process of building the model. And yes, in case you do have suggestions or you have also worked on such projects, please feel free to also reach out to us, and let us know how we can improve on the model.

Presenters

Sara John Malwil, a student of Nyöket AI

Nyöket AI is project that is using LLMs to incorporate local South Sudanese languages in chatbots, she presented a demo of AI translation in action. The presentation centered around the development of a Juba Arabic to English translation model, which is a sentence-to-sentence translation, not a word-to-word translation. The model uses a dataset of around 1,000 sentence pairs and aims to create a chatbot that can translate words from a common Juba Arabic Hymn book (Shukuru Yesu) and texts from Juba Arabic to English using Google colab notebooks piece by piece.

Eva Yayi M, Co-Moderator

So AI, as an emerging technology has become an integral part of our education system. I see people these days use chat, Gpt and other large language models, to create content or to do their assignments. People now send robots to meetings online to take notes for them, and of course, generative AI is capable of deep fake content which causes disinformation. But there is also infringement of data privacy, surveillance, and then copyright violations. As you use these AIs in your assignments at school please take note that sometimes you are committing plagiarism because some of that content is not yours, and most students just leave it the way. Oxford insights global AI index places African countries among waking up and nascent nations in terms of AI investment, innovation and implementation.

UNESCO has also developed two methodologies to help countries implement their recommendations on the ethics of AI:

- The first recommendation is called RAM, not Random Access Memory, but rather

Readiness Assessment Methodology. It assesses a country's readiness for an ethical, AI ecosystem in line with UNESCO's ethics recommendations.

- The second assessment is to the programmers and the coders. And I see a lot of programmers in the House. So this is called the ethical impact assessment, which helps protect teams to assess the potential ethical impacts on the AI systems they are developing.

A 2021 AI needs assessment survey by UNESCO identified policy priorities and capacity building needs in 32 African countries. The survey noted that it is not just about students or just the country, but also strengthening multi stakeholder driven policy initiatives for AI governance at national level. So that means the government is also supposed to be part of this providing building programs not limited just to students, but also policy makers, foster legal and regulatory frameworks for AI governance, the judiciary, the lawyers, and everyone has to be part of this because it's multi-stakeholder and then facilitate cooperation, enhance the capacities among public administrations, judiciary and parliamentarians for AI governance and use.

Andrew Anda Wundu, Lecturer of Philosophy, University of Juba/Trainer Nyöket AI Project

One of the founders in the field of AI says, the goal of AI is to develop machines that behave as if they were intelligent. What is intelligence? Now, there's a sub field of artificial intelligence that's called machine learning for those of you that are computer scientists. Do human beings have to be told everything? No, they can learn.

So with machine learning, it's about trying to get these algorithms that they can learn by themselves and improve themselves without a human being.

So let's get into this question of, can computers think this is a very important question, can computers think? There's a philosophical thought experiment that we like to give for you to try to think about, it's called the Chinese Room experiment. If a machine can think or if a computer can think.

A man is in a room by himself and outside is a person who asks these questions in Chinese. So you are inside the room by yourself and the outside person is asking you questions in Chinese.

Now this question is converted to Chinese on paper. The man in the room understands no Chinese. but he has a book of rules that tells him how to relate the Chinese symbols that make up the question into a set of symbols that constitute a response. So imagine the person on the inside. He has got a machine or a book, or whatever that makes you able to translate Chinese perfectly right now. These are now converted back into a spoken reply, so it tells them they are transitioning from Chinese, and then gives him the spoken reply.

Now to an outside person it would seem like the person in the room really understands Chinese, yes or no, for all intents and purposes right? It seems like the person inside knows Chinese.

The question now is, you think about this scenario because you know what's going on? What's really going on? Would you say the person understands Chinese? This is a substitute for the question of, can a machine think? Do you think the person really understands Chinese?

Now, by the way, the question is framed, you can see that. The philosopher. His name is John Searle. He thinks that no, this person inside the room doesn't really understand Chinese. All he knows is how to follow instructions very, very well but he doesn't know Chinese. This is analogous to what's going on with computers and AI every time you have a new technology. There will be ethical questions, whether you are conscious of them or not; and that includes AI. We have already talked about how comfortable people are with it. AI needs policy and there are very few policies. Unfortunately, I don't think we have any national laws that regulate AI technology.



We have UNESCO frameworks that guide how AI should be used, not specifically just in education, but in general, how do we build these capacities? We mentioned these AI skills and talents. There's no other way than to catch up to the rest of the world. These systems are ubiquitous everywhere.

So how do we update these laws? As I said, they are the same way that the cybercrime laws that most law most crimes regarding data and security now, online with AI, would be a subset under what we call sub cyber security laws and data protection laws. Also intellectual property laws, communications, laws. So going forward, there are a lot of laws that have to be updated to cover the field of AI. For example, Intellectual property was mentioned. How if you develop something with AI who owns the output of that work?

AUDIENCE

- AI is a wonderful tool that should be put into consideration. It can help us a lot but we should follow the rules and regulations governing it.
- Technology development should not forget about PWDs. AI should also be accessible to visually impaired persons because some technology is not accessible to them.
- AI is not as great as people think, that it will never surpass human intelligence. The greatest force in your existence is the human mind, so it needs to be trained.
- When dealing with translation of a language like Juba Arabic, a lot of research needs to be done into getting the real language grammar and the right translations, so maybe we could start from classic Arabic since most phrases in Juba Arabic are generated from there.

REFLECTIONS

AI development or all emerging technologies are a multi-stakeholder effort just like our IGF theme of Building Our Multi-stakeholder Digital Future Together in South Sudan. We need legislators, researchers, women, PWDs, overall, we need to be inclusive, because, if not, then we stand the risk of some people like children, refugees, migrants, people with disabilities being left out in this AI movement or AI emerging technologies and catching up. The 5th focus area of the AU's AI continental strategies actually talks about fostering cooperation; so collaborations are very important, multi stakeholders coming together to engage so that they are able to create AI that harnesses benefits. So the some of the questions we should be asking ourselves are:

1. How do we benefit from AI?
2. How do we build AI capabilities and make work better without replacing anybody and also minimizing risks and stimulating investment?
3. How do we invest in AI?
4. How do we remain relevant in this era of emerging technologies?



Panel Discussion: Disparities in Digital Access in South Sudan

Moderator:

Marina Modi

Panelists:

- Yine Yenki, Cofounder, GoGirls ICT Initiative and Board Member, NCA
- Yom Malual, Network and System Administrator, NCA
- Catherine Sensio, Persons with Disability Advocate

Overview

This panel concentrated on enhancing digital literacy and promoting gender equality in the digital economy, highlighting ongoing efforts such as training and mentorship programs for girls and women through different initiatives. The emphasis was placed on public awareness and affirmative action to prioritize women in leadership roles. Discussions included the ratification of the UN Convention on the Rights of Persons with Disabilities and the drafting of a Disability Bill. The significance of technology in advancing human rights and the role of telecom companies in connecting rural areas and generating revenue for governments were also examined. The conversation concluded with a focus on addressing disparities in digital access, particularly for individuals with disabilities and those in rural regions, underscoring the need for collaboration among various entities to innovate and develop solutions for digital inclusion.

Perspective on PWDs on digital disparities

In digital accessibility, particularly for people with disabilities, let me just mention that there are some categories, not all people with disabilities, like the visually impaired, those who cannot see, and hearing impaired. Massive barriers, such as communication obstacles, hinder their access.

From the previous session, I gained valuable knowledge in A1 that I didn't have before.

Google provides substantial support, especially for the visually impaired, through an application called Voice Search. This tool allows visually impaired users to access online information and services, empowering them daily independently. However, it's vital to assist people with disabilities in enhancing their technology skills.

- In South Sudan, Persons with disabilities are left behind because there are only a few who get the opportunity to go to school. When it comes to technology, some tools or applications are not accessible; for example, if you want to attend online meetings on Microsoft Teams, it's challenging for a visually impaired person to be able to access or to link to launch, for example, like to launch a meeting. Sometimes, some of the Microsoft team members are not easy to access. So this is one of the challenges that people with visual impairment are facing in South Sudan and also in general.



- Internet access. One might have a phone, but access to the information is challenging.
- Access to electronic devices, such as laptops or phones, is not easy as they are costly, and some people with disabilities cannot afford smartphones and other Assistive technologies.
- Technology centers are lacking, especially for visually and hearing-impaired people. I have only basic computer literacy knowledge, not advanced knowledge.
- Lack of experts locally to train persons with disabilities on advanced computing skills. For example, I learned from the Kenya Society for the Blind, sponsored by one of the Catholic priests, and yet some PWDs have an interest in learning, but there are no opportunities.

This has led to PWDs missing opportunities. For example, like job opportunities nowadays, if you want to get a job, you can since most jobs are currently advertised online, and you have to apply for them online, too. You will not be selected for employment if you don't know how to use a computer or have computer skills. And the disparities between women with disabilities are more amplified compared to their male counterparts.

Refugee Context

Digital access disparities in South Sudan are significant because the digital penetration rate is very low due to socioeconomic, political, or infrastructural limitations.

In South Sudan, we are only connected in urban areas. There is an urban-to-rural divide when it comes to connectivity. NCA recently developed a project to connect, especially the refugee camps, and they chose three refugee camps: Gorom, Mangala, and Guolyar. When feasibility studies and the survey were conducted, the rate of Internet connectivity was very, very low due to factors like infrastructural limitations. The findings were that the majority don't even have phones, and those who have phones can't access the Internet; the high cost of the data bundles, so they can't afford it, and the limitation of these Mobile network operators. For example, you will find only Zain there or only MTN with only one tower, and imagine that if that tower is off, everyone is cut off. And all these digital access disparities translate to a lack of connectivity.

As per connectivity statistics for 2024, 14% of women are connected, while approximately 37% of the overall population is connected. This disparity arises from the rural-urban divide, with connectivity being predominantly strong in Juba. In contrast, other states experience notably lower connectivity rates. NCA is working to close the gap in digital literacy and access to technology.

Local Initiatives to bridge this gap

Considering all the work done, there has been a noticeable shift in the interest and engagement of some girls and women in the sector compared to when initiatives like the GoGirls ICT Initiative were founded in 2015. This shift was noticeable by 2024—almost nine years later. Despite the challenges, this is a step forward. One example we've always loved to share is how we check the insights of our social media page monthly, especially on Facebook. At GoGirls, we notice that a quarter of our viewers are girls and women each month, meaning three-quarters are men. We continually question this. We aim to engage more with girls and women, but primarily men who engage with it. Moreover, through interactions, we've learned that some men share this information with women instead. So, we always wonder: where are the women? What's holding them back? Even in this room right now, where are the women? Where are the girls? We're here at the university and expect to see more girls, at least those studying computer science. But how many are here? How many are in this room?

A summary of what has been accomplished to close the gap

- Banat Initiative for Leadership and Digital Development (BILDD). This initiative provides training and mentorship for high school and university girls and women in digital life skills to enhance their competitive prospects in a digital economy.
- The GoGirls ICT Initiative has been in place for nine years and represents significant efforts to bridge the gaps in digital disparities and promote the inclusion of women and girls; just like the Director General mentioned earlier, Civil society is always the backbone that they rely on to advocate, and this is significantly reflected by NCA's efforts in amplifying initiatives like ITU's Girls in ICT through BiLLD and support GoGirls ICT Initiative.
- There is Koneta Hub, too, and consortiums like Women in STEM(WiSTEM), and there are several training programs that other companies are doing to build the capacity of women. These initiatives or different training are done because of people's awareness. Something that became profound regarding digital disparities is not to bundle them together but categorically look at them as various case studies. For example, in this panel, PWDs and refugees were mentioned, and then some women have access to these opportunities, but they're not even taking up these opportunities. There is still a need for awareness to ensure they realize these initiatives are happening.

However, these initiatives have been taking place at the national level.

- In 2023, NCA engaged state coordinators from 10 states and three administrative areas. Only one woman, a deputy coordinator, was present. To encourage women to apply for top job positions, women who rank second or third receive priority at the Authority.
- There has been a complete shift in how civil society, government, and development partners collaborate. Ongoing discussions focus on enhancing the education sector and incorporating ICTs into South Sudan's curriculum.
- South Sudan joined the UN convention by signing the Convention on the Rights of Persons with Disabilities last year, which took effect in March. Its purpose is to ensure persons with disabilities enjoy equal freedoms and human rights, including access to technology. Ratifying this convention empowers individuals with disabilities to advocate for their rights. The Disability Bill is being drafted with support from the Ministry of Gender Social Welfare and civil society partners like the Community Empowerment for Progress Organization (CEPO).

Audience

Questions and Perspectives from the Audience.

- How should a business balance affirmative action to encourage female technologists by hiring the right person?

- Women have consistently outperformed men in leadership roles, and they need to continue to take advantage of the 35% allocated to them as we have seen, for example, in countries such as Rwanda and Denmark, where women hold most government positions, their rise to power was not driven by advocacy for female inclusion only. Still, instead, these women earned their roles through their capabilities. It's an opportunity for every woman to seize; if you can, step forward.
- NCA's efforts to connect rural areas are commendable. Why isn't there an attempt to establish a national telecom company? The government should regulate the sector; how can it regulate itself as an entity?
- Nothing beats girls' engagement at grassroots levels, such as primary schools. Initiatives like the GoGirls ICT Initiative have proven their long-term impact on women's inclusivity, and I encourage them to continue.
- Disability has become a business, often exploited for profit under the guise of promoting inclusion. However, activities frequently exclude persons with disabilities. To foster genuine inclusion, it is suggested that disability be mainstreamed in all programs, that persons with disabilities be consulted to understand their challenges and needs, and that they be included in planning and training. Training in digital accessibility is essential, as modern communication relies heavily on digital platforms.



- Consider a girl or woman who initially lacks a phone. Once she acquires one, she gains internet access like her male peers. In this scenario, what defines the gender divide if everyone can connect?
- Digital assessment is crucial to understanding the gap and designing relevant programs.
- Digital diagnostics are used to understand how many girls and women are in ICT-related careers and what needs to be done.

Recommendations

- Policies in digital literacy and access need to be crafted.
- The economy's diversification directly affects the sector, such as exchange rate adjustments that affect the industry's tariffs.
- Digital centers that can accommodate persons with disabilities in the ten states and three administrative areas.
- Public institutions of learning, like universities, have assistive devices for persons with disabilities to enable libraries and learning materials.
- Continuous support of forums like IGF as a multistakeholder platform for civil society, academia, development partners, and government to discuss relevant issues within the country.

- Institutional policies that aid women, such as providing clean facilities like restrooms for menstruation, influence how long girls and women can remain in these environments. Some women leave the sector due to inadequate conditions. There is a pressing need to innovate and devise direct solutions that promote and enhance women's inclusion.
- Multisectoral collaboration is key in closing the gap in digital access and inclusivity of women, PWDs, and minority groups like refugees.

Conclusion

The session emphasized the importance of collaboration and inclusivity in shaping the country's digital future, highlighting the necessity of a digital transformation strategy. It also tackled the challenges of being new to a technology-driven environment and the demand for improved accessibility. Conversations covered regulatory hurdles, the survival of businesses during inflation, and the roles of multiple stakeholders in crafting inclusive strategies for South Sudan. The significance of sharing experiences to influence policy and foster ongoing collaboration on internet-related matters was particularly underscored.

Key messages from South Sudan IGF 2024

- Digital inclusion of PWDs, refugees, women, and girls, disconnected communities.
- The Plenary session on emerging technologies and AI presented a Language model simulation that translated Juba Arabic to English as a way to demonstrate inclusion of South Sudanese languages in AI chatbots and translation models.
- The issue of disinformation and misinformation is still a big problem in South Sudan.
- Fintech and cashless economies are the solution to integration of financial institutions, curbing inflation, and simplifying transactions.
- Collaboration through multi stakeholder engagement is the way to achieve and integrate digital and emerging technologies in South Sudan.
- Digital literacy is still a challenge that needs to be addressed.

Acknowledgement

We extend our sincere gratitude to all the Partners who contributed to the success of the SS-IGF 2024 event.

We also want to recognize the efforts of **Yine Yenki Nyika** and **Eva Yayi Mawa Upele** from the **GoGirls ICT Initiative**, who curated this event and were responsible for transcribing, authoring, and designing this report.

Additionally, we would like to appreciate all the participants who shared their experiences and insights, helping to make this report a comprehensive resource.

Annex A:

Schedule

Time	Session name	Session Lead
8:00 am – 9:00 am	Welcome and introduction to the forum.	MC: Stella Loki
9:00 am – 9:20 am	Keynote speech: the importance of Multi-stakeholder collaboration in digital transformation.	DG South Sudan NCA Hon. Napoleon Adok Gai
9:20 am – 9:30 am	Moderated Plenary and keynote speech 1: Digital Content and community standards.	Moderated by Nelson Kwaje
9:30 am – 10:30 am	Tea break	All participants
10:30 am – 11:00 am	Panel discussion 1: Internet and good Governance.	Moderator Paul Lomu
11:00 am – 12:00 pm	Moderated plenary session 2: Capacity building and Education.	Co-Moderated by Poni Henry & Eva Yayi
12:00 pm – 1:00 pm	Lunch	All participants
1:00 pm – 2:00 pm	Panel discussion 2: Disparities in digital access in South Sudan.	Moderated by Marina Modi
2:00 pm – 3:00 pm	Way forward:(report on previous IGF and strategies)	Rapporteur Mawa Richard
3:00 pm – 3:30 pm	Closing remarks	Guest of Honor
3:30 pm – 3:40 pm	Networking session and closure.	All participants
3:40 pm – 4:00 pm	Welcome and introduction to the forum.	MC: Stella Loki

Annex B:

South Sudan IGF 2024 Conveners and Partners

The number of partners for the South Sudan IGF 2024 has increased significantly compared to the previous years. The following are the partner and stakeholders:

1. South Sudan National Communications Authority.
2. Ministry of information, communication technology and postal services.
3. Universal Service and Access Fund South Sudan.
4. GoGirls ICT Initiative.
5. Koneta Hub.
6. ICT Society South Sudan.
7. Internet Society South Sudan Chapter.
8. Banat Initiative for Leadership and Digital Development.



INTERNET GOVERNANCE FORUM 2024

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Digital Future in South Sudan*

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