

Learnings from the African Approach towards AI Ethics in the Private and Public Sector for Japan

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Venue : Online (Zoom Webinar)

Host : Institute for Future Initiatives (IFI), The University of Tokyo

Co-Host : NEC Corporation

Introduction / Opening Remarks

On March 3, 2023, the University of Tokyo Institute for Future Initiatives (IFI) hosted a webinar titled “Learnings from the African Approach towards AI Ethics in the Private and Public Sector for Japan” which was co-sponsored by NEC Corporation. Most people think of governments and companies in Western Europe, led by the U.S. and EU member states, for countries and regions with AI and advanced technology. However, the promotion of innovation through digitization and cutting-edge technology is not limited to the West, and governments around the world are taking the initiative in this area. One aspect that should not be overlooked in the process of social implementation of technology is the concept of ethics and social responsibility. The emergence of policies, legislation, and governance to implement AI ethics in governments and companies is not limited to Western countries but also includes the Middle East, Africa, and the Asian region. The Middle East, Africa, and Asia are creating policies aligned with their respective visions and values.

This webinar features keynote presentations and panel discussions by three guest speakers from the African region AI ethics stakeholders that Ken Suzuki interacted with during his visit to “AI EXPO Africa 2022” held in South Africa in September 2022 as a Project Researcher (at the time). Currently, South Africa, Nigeria, Kenya, and other high-resource African countries are in the midst of leading and thriving in the development and the use of AI, in particular in the business scenes. This event spotlighted the current state of AI development and implementation in Africa, which is hardly reported in Japan. Three guest speakers, who are mainly active in South Africa and Kenya, explained the current status and challenges of creating frameworks and guidelines for ethics, safety, and responsibility in the use of AI and data by governments, public institutions, and companies. During the panel discussion, the panelists discussed how Japan can learn from AI ethics and governance initiatives in Africa. The event provided an opportunity to introduce the African approach and philosophy on AI ethics and governance to the Japanese corporate and government stakeholders which encourages them to look beyond the proposals and strategies formed by Europe and the United States.

Keynote Presentations

“Data and tech attorney at Michalsons” : Nathan Ross-Adams

I am a South Africa-based lawyer specializing in the tech sector, and I am part of a law firm that handles cases throughout Africa. My practice focuses on assisting companies that seek innovation through the use of technology lawfully and ethically.

First, I would like to talk about the current state of the private sector and AI in Africa. Artificial intelligence commonly refers to the use of computer systems to learn from data as an input and make human-like decisions as an output. Looking at Africa as a whole, there has been a lot of talk in recent years about AI being used by banks to make lending decisions. While the spotlight has been on the benefits of using AI not only in Africa but around the world, led by corporations, there has been too little attention paid to the risks associated with the technology. While African governments have national strategies for AI, there has yet to be a current trend toward regulating technology. However, we are concerned that there is currently no regulatory framework that restrains AI with such biases or requires that the data used to develop AI be checked for bias or discrimination.

Africa is also experiencing human resource and employment problems due to the society-wide penetration of AI. The use of technology can result in the loss of jobs for people who were previously engaged in human-performed labor that is now replaced. In addition, tech talents such as software engineers and machine learning engineers who grew up in African countries are being hired by major international firms, and less and less of this highly skilled talent is being returned to local communities.

We also recognize the importance of ensuring the trustworthiness, transparency, and accountability of AI. In Africa, we often ask voice assistants easily accessible from devices such as Alexa and Siri to make decisions about directions, shopping, and research in our daily lives, and if the answers AI provides to humans are not accurate and appropriate, there is a potential for harm. In addition, there is a growing need for transparency when analyzing algorithms and clarifying who is socially responsible when problems arise.

While we have mainly discussed the possible issues that AI causes, we would like to touch on measures that can be taken to prevent it from becoming a social problem. In Africa, there are indirect regulations on the development and use of AI, such as the Data Protection Act and the Cybercrime Act. I believe that the institutionalization of AI regulation is needed not only in South Africa but in Africa as a whole as well. And such progressive efforts should be led by the African Union and international organizations. In South Africa, the application of specific

laws to AI is currently underway, and I would like to present three approaches to help companies adapt to the changes in legislation. The first approach is to create policies within your company regarding the development and use of AI and technology. Developing rules to be followed within the organization helps to ensure social responsibility and ethics in interacting with technology. Second, risk management for third-party organizations involved in engineering. The third approach is the effective use of contracts. In South Africa, where government legislation and policies on corporate use of AI have not yet been formed, there are an increasing number of cases where contracting parties are voluntarily including specific provisions within their contracts regarding privacy protection, technical risk management, and proper data management. This is an effective means of practicing responsible technology development, as contractual compliance between companies carries the same weight as a legally binding force. Furthermore, indemnification and insurance in case of breach of the guarantees stated within the contract are also becoming a strategy taken by technology companies these days. I am also currently a Ph.D. student and will continue to research precise proposals to regulate the intersection of business and AI in the field.

“Public Sector and NGO’s efforts towards responsible use of AI and International Collaboration for AI Ethics from Africa”: Deshni Govender

I am the Country Focal Point for the Fair Forward project at GIZ, the South African branch of the German government’s development support agency. In addition, GIZ has offices in five countries in Africa: South Africa, Kenya, Ghana, Rwanda, and Uganda, and two countries in Asia: India and Indonesia. My background may be a surprise to the audience that I am neither a data scientist nor an AI expert. I have been involved in financial services and banking as a lawyer who has a background in law, but I became interested in technology in the process of getting involved in fintech projects. As a result, my increasing passion for making AI more democratic and inclusive led me to join GIZ. In my presentation today, I would like to talk about two main things: ‘AI Maturity in Africa’ and ‘AI Ethics in the African Context’.

Before we delve deeper into AI ethics topics, I would first like to provide an introduction to AI strategies and implementation in Africa as a whole. The Oxford AI Readiness report reveals that as of 2018, only 18 African countries ranked in the top 100 countries, and the 2021 edition of the report shows that the number of countries in the top 100 countries has not grown much and is currently the lowest of the five continents. The 2021 edition of the report also demonstrates that there has not been much growth and currently has the lowest AI-related indicators among the five continents. While Africa also lags in data governance and digital transformation policies, we recognize that it is not without material data to drive the social implementation of AI. and we believe that the level of use and development of AI in Africa as a whole will catch up with global standards. However, we have a problem in that the evaluation of the current state of AI in Africa is based on the “global standards” set by Western countries, which are automatically translated as Western thinking = international. For example, there is a difference between Western

ideology, which emphasizes individual rights and independence, and African ideology, which is based on religion and rituals. Therefore, it is natural that the ideal relationship between technology and society differs from region to region and community to community. The barrier is that a group that is behind and trying to catch up cannot have an opinion on the standard of evaluation considered by the group of leaders. We need to study and analyze global standards. African governments should take into account the technical, social, and cultural risks involved when directly adopting international standards, and consider adjusting the policies to be in line with the values of their people.

In the second part, I would like to introduce a perspective on AI ethics in the region of Africa. Recently, the public has been talking about Chat GPT and other AI products and services, and the number of opportunities for the public to access and interact with them has been rapidly increasing. is an excellent model that supports English, French, Japanese, and other major languages, as well as African languages such as Rwandan, Marathi, and Kenyan. Most generative AI is an open source product, but this development methodology is lurking in areas that are not fair and ethical. Open-source advanced AI cannot provide high-quality models without using large amounts of data. Therefore, data from many users is tracked and collected through the use of the service. Some of the language data collected includes valuable indigenous languages, which may have unintentionally and unauthorizedly infringed on copyright, culture, and history. In addition, developing AI with user-provided online data often fails to reproduce the subtle features of language when modeling the subtleties of language context that vary by region and culture. Even within the same language, intonation and vocabulary can change, so centralizing them as a single language option as a language model can lead to the loss of language and culture. It is also important to ensure that users are being paid a fair price for providing language data by the organizations that use the data. Compensation for providing data is not limited to monetary rewards, but it is also an important ethical consideration whether the services developed are returned to the community or region to which the contributing user belongs. We believe it will be essential to create legal safeguards governing the development of AI to protect cultural nuances and dialects from the erosion of digitization in regions of Africa where diverse languages are spoken.

Finally, I would like to highlight one thing I have learned from AI-related initiatives at GIZ. Data protection, which is closely related to the development and operation of AI, is becoming more prevalent in South Africa. However, people are less concerned about access to data. In the framework of data governance, it is not enough to keep data in a safe place; we need to consider who has access to the data and how the data is being used. From a policy perspective, a publicly funded open science policy has recently emerged in South Africa. This policy allows for transparency and public access to the research itself and is based on the premise that it is clear which organizations, government or business, have access to the data, how and for what purpose the data are used, and who benefits from them. Data collected and technology developed under the above policy are prohibited solely for the commercialization of companies, reflecting the idea that the citizens of South Africa should be the target of maximum benefit. We expect that when the South African government comes up with AI policies and regulations in the future, they

will be based on a philosophy supporting the Open Science Policy.

“The current state of AI utilization in Kenya and strategies to use technologies responsibly”: Mark Irura Gachara

I am currently based in Nairobi working for the Kenyan chapter of GIZ on the Fair Forward project. Briefly, I will address my career background. I started my career as a software engineer in the tech industry, followed by working with African governments on digitization and technology-related projects. Since 2014, I have been involved in shaping government data governance and developing national data. I have been involved in the development of national data strategies. I will be discussing the rights and governance associated with data in Africa through my presentation.

First, I would like to address data rights in Africa. Data-related rights are diverse, but the United Nations has focused on privacy protection since 1995. And in recent years, the EU’s GDPR is an example of a familiar regulatory framework. Africa is also following the trend of international data regulation, and interest in and formation of data protection laws is gaining momentum: in 2014, the African Union-led Malabo Treaty was signed among African member states, establishing cybersecurity in the management and use of data. As of 2021, 25 countries had ratified the treaty. We have seen an addition of five more countries compared to the previous year, and this is largely due to the EU’s GDPR. Data protection laws emerging around the world encompass a wide range of values. Beyond privacy protection and rights, they include transparency of data use, accountability, social responsibility, data bias, and fairness of data sets. The process of translating such values into laws and policies translates into specific guidelines for ethical data collection, notifying users of data use and ensuring transparency of purpose, limiting data management, and destroying unnecessary data. This specific data regulatory framework exists to indirectly support the practice of AI ethics in countries like Ghana where AI guidelines have not been developed.

Next, I would like to explain something about the methodology of technology governance in Africa. Traditional frameworks regarding the proper use and management of data are often top-down in form, with companies and the general public following what is set forth by parliaments and interest groups. Such governance has been implemented in Ghana and Rwanda, where the governments have established their own AI policies respectively. The top-down approach is time-consuming and costly because the discussion process for policymaking involves bureaucratic processes such as lobbying and a certain number of stakeholder agreements. On the other hand, bottom-up governance is less time-consuming. University faculty teach students on the ground, tech innovators voluntarily form technical hubs, and a wide variety of leaders simultaneously leverage their resources to move society forward. The

drawback of a bottom-up methodology is that it can create an element of exclusivity that leaves out those segments of the community who are not involved in the governance or who have difficulty accessing social movements. In Kenya, non-policy-maker known as AI practitioners analyze examples of advanced technology use from around the world and propose technology use and governance approaches that fit the characteristics of their region or country. By clearly understanding the successes and failures of first-mover countries, we take the approach of not over-regulating and discouraging innovation in the African countries that will adopt the technology in the future. We believe that restrictions and regulations caused by excessive distrust and fear of AI and data have a negative impact on startups and product development and catching up to technologically advanced countries.

Finally, I believe that Africa must continue its dialogue with other countries and regions within Africa in technology policy. Using the Malabo Convention on Cybersecurity as an example I mentioned earlier, it is important to discuss how to maximize the social impact of the institution among ratifying countries to achieve successful technology governance in the African Union member states.

Panel Discussion

Theme: "Japan could surely learn AI ethics practices and efforts from African governments and firms instead of pursuing the Western paths."

The topic we chose to discuss with three experts active in the field of AI in Africa is what we can learn from the use of AI in Africa. We proceeded with the discussion from the perspective that Africa will not adopt Western policies and approaches as they are, but that there are things that can be learned from their attempts to derive methodologies that suit their needs. Below is a summary of the questions raised by the audience and questions prepared in advance of the discussion.

Question 1: Are there any Africa-wide policies to prevent technology fluency and adaptation gaps in the use of AI in West African countries that lag linguistically and economically (while some countries in Africa, such as South Africa and Kenya, are leading in the development and social implementation of AI)?

Nathan: We recognize that one of the reasons for regional disparities in the use of AI is that the history and current state of economic development in each country is a major criterion for foreign investors when selecting regions to be AI hubs. In Africa, there are regions where priority should be given to solving more pressing issues than the use of technology, such as food problems. Hence, there is naturally a lack of time to implement AI and data even if the government and society is interested in and understanding of the concepts. In addition to economic indicators,

I believe that the availability of appropriate human resources or government policies will come into play in the regions where we want to pursue development.

To avoid creating or exacerbating hierarchies and disparities between regions and countries in Africa, it is important to have the mentality that some African countries should not be left behind in the development process while others take the lead. Initiatives already exist to shape inclusive macro-policies led by GIZ, Smart Africa, and the African Union. In addition, we believe that education on the definition of artificial intelligence and its advantages and disadvantages for society is essential in regions where there is little understanding of AI.

Question 2: What are some appropriate ways to learn about biases that may be inherent or contained in AI?

Deshni: Bias is a fluid thing and it is important to understand the context. We also need to accept the premise that bias itself will never completely go away. Biases have changed over time. For example, slavery in the U.S. was legally recognized and socially taken for granted at the time for owning people of color, but such precision is far from what is accepted today. Biases regarding women's participation in society have also changed over time. Thus, biases, like ethics, are variable and difficult to eliminate, especially cultural biases.

An example of an activity we are working on at GIZ is the importance of engagement with local communities to understand local biases. Communicating with the people who make up the community can be time-consuming and financially costly, but we encourage many companies to make the effort. For example, if a company wants to develop an AI-based Swahili language model and wants to cut costs, it may be tempting to take the shortcut of simply translating textual or audio data and cutting costs. However, biases in language are often tied to culture and tradition, and careful engagement with people and culture will help to understand the biases in language and prevent biases from being included or unintentionally formed in AI-based language models.

So, how can organizations with limited capacity carefully engage their staff? Understanding the local situation and human resource development are two important factors. First, whenever possible, for international projects, work with local organizations to collect and develop data. Involving local people will greatly help you understand the cultural nuances and context. And for AI projects that require an understanding of bias (assuming a language model for this discussion), train people who live in the target region. Don't give up because you don't have access to the skills and resources you need; there is talent in Africa, South America, and other regions of the Global South. We believe that developing local talent through

the acquisition of new skills and the provision of resources is essential to the success of the project.

Question 3: What is unique about AI ethics and governance in Africa compared to other regions?

Nathan: When looking at Africa in terms of implementing AI ethically, the most important feature is the part where we take examples of policies and strategies from around the world and tailor them to our local characteristics. This approach is based on the human-centered values of shaping policies that are sustainable for the people of Africa.

Mark: I believe it is important to implement AI in a value-driven and socially responsible manner. I feel that there is a need in Africa not only to promote the use of technology, but also to incorporate concepts such as diversity considerations, accountability, and transparency into AI.

Deshni: Implementing advanced technologies such as AI in a socially responsible manner necessarily involves the active participation of citizens who will become its users. Using policy to promote AI ethics will not easily change the culture and values surrounding AI that people have formed.

Question 4: Are there any human rights risks associated with AI? (Are there any notable concerns throughout the African region, in South Africa, or Kenya?)

Nathan: There are a lot of AI-induced human rights risks. I am going to highlight three concerns. The first and most everyday risk we face is race-related bias and discrimination. The problem is that the AI used by financial institutions to assess trustworthiness when making loans and financing loans in Africa uses datasets created in the US and Europe, which disadvantages some racial groups. Second, many people in Africa use voice assistants that are accessible via smartphones and other devices, and the voice assistants' accuracy and content are not always as good as the voice assistants'. The second issue is that many people in Africa use voice assistants accessible through smartphones and other devices, and regulations for consumer protection have not kept pace with the accuracy and content of voice assistants' answers. Third, if there is a problem with AI-based services, who will be held accountable and accountable? Third, it is not clear who is accountable and accountable in the event of a problem with AI-based services. As a society, we recognize the importance of having an accountable party in the event of an emergency.

Mark: I would like to highlight two human rights issues. The first issue I would like to raise is how children interact with technology; I believe that content filtering will still be essential when considering children under the age of 18 as children. Secondly, I am concerned about the collection of user data that capitalism causes. We are concerned about the current economic exploitation of user data in

Africa, where AI-based services are developed using user data, but such services are not returned to the communities where the data was collected at all.

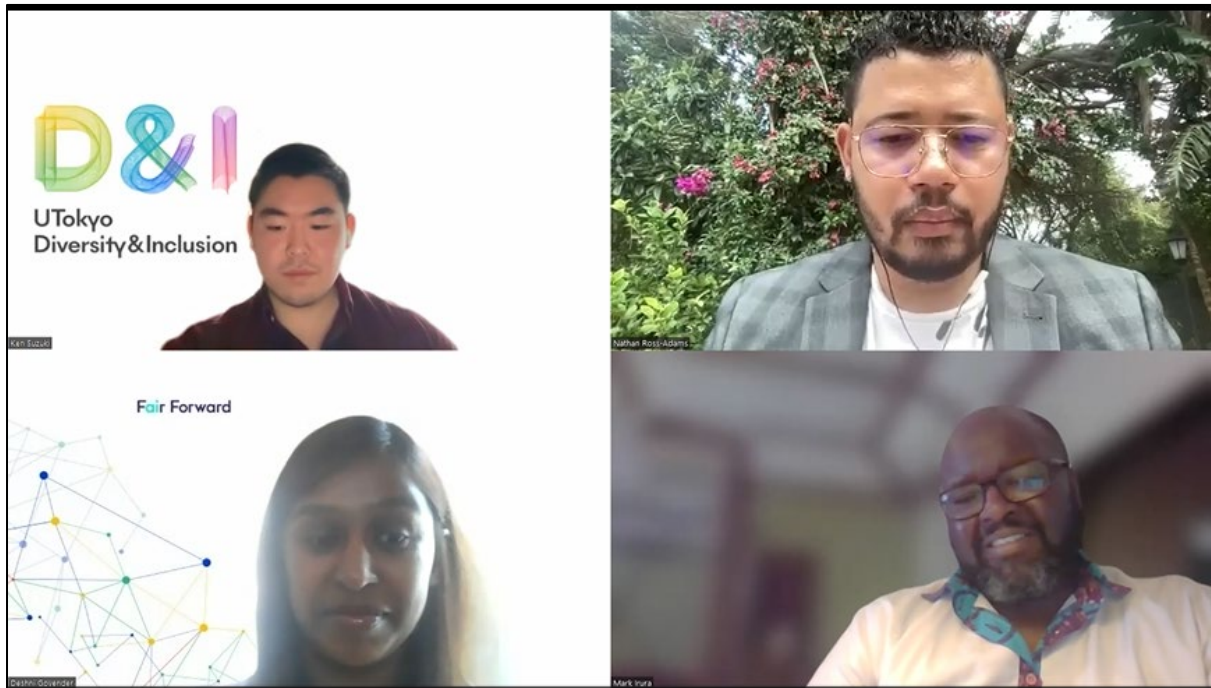
Deshni: One of the first issues that come to light is data proxying. When personal information is collected without gender, age, or gender, it may be possible to predict and identify sensitive personal information from a combination of available data trends. It is a violation of human rights to be able to indirectly predict information that a user avoids sharing from address, language spoken, bank branch, etc., without collecting bias-prone personal information from direct questions. It may also unintentionally reflect existing biases in AI. We also feel that the automation of gender assignment due to the expanded use of AI is problematic. For example, if you register as a woman on a job site, you may be recommended to work in an industry where women have historically held a high percentage of jobs, such as secretaries or receptionists, or the default voice for voice assistants may be female. Gender assignment, which cannot be noticed without awareness, needs to be prevented from becoming an automatic part of the AI process.

Concluding and closing remarks: Dr. Shiroyama

Japan has opportunities to dialogue with stakeholders in the EU and the U.S., but we do not have much exposure to the topics and ideas of the leading players in the AI scene in Africa, so I think this was a meaningful event that broadened our perspectives. The event was a great opportunity for us to gain a better understanding of the importance of considering regional differences when planning the social implementation of AI.

I also learned three perspectives through the topic presentations and panel discussions from the three speakers: First, the importance of community. First is the importance of communities. Policies tailored to specific communities can create bias, but it is important to use technology in the local context without ignoring the uniqueness of each community. The second learning is the balance between protection and access. For example, in the area of financial services, Japan is relatively advanced in the systemic aspects of lending and financing but still has limitations in financial inclusion, etc. While we want to promote the use of AI-based financial instruments, it is important to use technology to solve problems while maintaining the advantages of existing systems. The third point is the need to secure human resources. If excellent engineers are hired exclusively across continents, mainly by European and American companies, there will be a shortage of human resources when development is carried out in Africa. I felt that rather than reforming institutions and systems, we need to aim to solve this problem by addressing the essential issue of how to secure human resources locally.

Finally, we hope to utilize this event as an opportunity to continue to engage in dialogue with stakeholders in Africa and across continents to broaden our perspectives in the future.



(from the top left) Mr.Suzuki, Mr.Nathan Ross-Adams
(from the bottom left) Ms.Deshni Govender, Mr. Mark Irura Gachara