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Artificial Intelligence (AI) and Public Governance in Sub-Saharan Africa: Assessing its implication for Job Losses

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Abstract

Artificial intelligence (AI) is a technology that enables computers, robots, and other machines (like drones and driverless cars) to perform tasks that were previously only possible for people or a small group of people. AI uses techniques like robotic process automation, natural language processing, computer vision, machine learning (including deep learning), and computer vision. This study aims to investigate the effects of artificial intelligence (AI) on job losses in public governance in Sub-Saharan Africa. The study uses a correlational research approach, which is more focused on establishing the state of a phenomenon rather than identifying the specific cause. Information was gathered and findings were discussed using secondary data. The results showed that a greater proportion of occupations in Sub-Saharan Africa, especially in agriculture, are in danger of disappearing due to artificial intelligence (AI) applications. Thus, among other things, it is advised that AI be used sparingly in Sub-Saharan African' governance related matters.

Keywords: *Artificial Intelligence, Public Governance, Sub-Saharan, Africa*

Introduction

Artificial intelligence is a relatively new concept which has fundamentally altered how things are done by applying critical thinking skills to human administrative and managerial areas. The conventional rule of thumb has been supplanted by this sophisticated technology. These days, cutting edge science and the creative use of contemporary technology through the numerous applications of AI define both business and public sector workplaces. The extent to which artificial intelligence is replacing some employment particularly in public sectors in Sub-Saharan Africa has recently caused public uproar. This is as a result of some AI metrics replacing the conventional approach with more practical and effective public sector governance methods.

The increasing use of artificial intelligence (AI) in governance presents a wealth of potential for governments across the globe (Gupta, 2019). Traditional methods of service delivery, policy development, and enforcement are rapidly changing as a result of the incorporation of AI technology into governance practices and public sector ecosystems. This is because the government uses AI technology to improve citizen trust, elevate the caliber of public services, and increase the effectiveness and efficiency of service delivery. Additionally, governments can test out various policy options by using AI to simulate complex systems and provide more accurate projections (Margetts & Dorobantu, 2019). There can be benefits from several government functional areas, such as public health, transportation, law enforcement, and decision support. As Agba, Agba & Obeten (2023), succinctly observe, AI can be deployed in public sector management to process large volume of social/administrative data, make predictive analysis, and generate insights to enhance informed decisions. The integration of AI in public sector management can be viewed an effort by government to catch up with the technological revolution in the globe and build a functional agile government and this can only be made possible in an atmosphere characterized by meritocracy, pragmatism and honesty. This is the hub of a functional and responsive public governance (Agba, Agba, Ettah, Enang & Ata-Agboni, 2023). However, using AI in public governance is not without its challenges. While integrating AI into governance may increase public trust in governments, it may also have the opposite effect. A violation of citizens' privacy or an unjust use of AI in public administration could be the cause of this drop in public confidence. Additionally, the opaque nature of black-box systems creates additional challenges, like unclear accountability and responsibility, when AI is used in government decision-making. Given that errors committed while integrating AI in governance could have negative repercussions on both society and governments, these facts raise the stakes for governments (Dignum, 2017). Even while artificial intelligence is not a new field of study, recent developments and a rise in policy interest have put it back in the public front. However, a lot of information gaps persist (Kuziemski & Misuraca, 2020). Thus, the study's goal is to investigate how artificial intelligence and public governance are interfacing in Sub-Saharan Africa and how this may impact employment loss.

PROBLEM STATEMENT

The use of AI in public governance has become a significant perspective in the way of doing things. AI technologies and the digitalization of human activities is sine qua non to the efficient and effective means of administrative and managerial thinking abilities in both public and private ecosystems and/or domains. The gamut of deployment of AI in public and private workplaces have monumental effect on human jobs which has become one of the critical challenges of mankind today, the Google and Microsoft staff lay-off, are current cases in point. This paper therefore, aims at investigating the use of AI in Public Governance in Sub-Saharan Africa with specific focus on its implications for Job Loss

Purpose of the study

The purpose of this paper is to investigate the use of AI in public governance and its implications on job loss in Sub-Saharan, Africa

LITERATURE REVIEW

Conceptual clarifications

There are multiple definitions of AI systems, based on the domains in which they are used and the phases of an AI system's lifetime (research, design, development, deployment, and use) (UNESCO, 2020). The technological foundations that allow an artificial intelligence (AI) system to handle data and information in a way that incorporates intelligent behavior are hence the main emphasis of this work. Control, prediction, learning, and planning are some possible components of this skill (UNESCO, 2020). In actuality, AI systems are made up of models and algorithms that generate these capabilities. The AI system can operate somewhat independently thanks to these components. Since the focus of this paper is on public governance of AI use, we therefore adopt a common but simplified definition of AI in policy-making circles, which is defined as "systems that display intelligent behavior by analysing their environment and taking actions with some degree of autonomy to achieve specific goals" (European Commission, 2018). So, practically speaking, artificial intelligence (AI) "refers to a range of different technologies and applications used in many ways". Artificial intelligence (AI) systems interact with their environment, which consists of relevant objects and rules for interaction. Each agent correlates actions with sequences, and its tasks define what environmental situations are acceptable and bad. In actuality, AI is frequently used in the government environment. According to UNESCO (2020), artificial intelligence (AI) systems are technical systems that possess the ability to process information in a manner similar to intelligent behavior. These systems usually consist of elements related to perception, learning, reasoning, planning, control, and prediction. Some approaches and technologies that make up an AI system include artificial neural networks, fuzzy logic, case-based, natural language processing, cognitive mapping, multi-agent systems, machine reasoning, which includes planning, predictive analytics, knowledge representation and reasoning, search, scheduling, and optimization, and, finally, cyber-physical systems, which include robotics, internet of things, computer vision, human-computer interfaces, image and facial recognition, speech recognition, virtual assistants, and autonomous machines and vehicles (Baheti & Gill, 2011).

Regarding its scope, artificial intelligence (AI) is still a huge, diverse study topic with a wealth of publications on its applications and implications. These publications continue to come from a wide range of perspectives, including philosophical, operational, practical, and highly technical ones. This work focuses on the literature's discussion of the consequences of the aforementioned methodologies and AI applications in public governance contexts, within that broad scope (Baheti & Gill, 2011). The literature primarily pertaining to public administration, digital government, management, information science, and public affairs is the subject of this article. It focuses on the articles that examine how AI might affect things in that particular situation. Because of this, publications that examine "how to do" AI technically, that is, how to build, create, and optimize AI systems and applications are purposefully excluded from the systematic literature review described in this work. This is a stance that is prevalent in the literature on computer science, engineering, and applied science. Broadly speaking, artificial intelligence (AI) uses methods like machine learning (including deep learning), natural language processing, computer vision, and robotic process automation to allow computers, robots, and other machines (like drones and driverless cars) to perform tasks that were previously only possible for people (or teams of people) to perform (Baheti & Gill, 2011). This is also connected to a number of auxiliary technologies in fields such as digital sensors used to construct a "internet," satellite communications, 5G networks, and augmented and virtual reality (AR/VR). This is also connected to a number of auxiliary technologies in fields such as 3D printing, block chain, 5G networks, satellite communications, augmented and virtual reality (AR/VR), and digital sensors used to build the "internet of things." However, we are still concentrating on "narrow AI" as opposed to "general purpose AI" in another understanding of the word. This is because, in the course of a two decades, artificial intelligence has progressed through three primary stages: a shift towards machine learning in the late 1990s and early 2000s; a surge in the acceptance of neural networks beginning in the early 2010s (as the advancement of image and speech recognition was made possible by the automatic processing of unlabeled data); and the most recent advancement in reinforcement learning during the last ten years (Hao, 2019).

Artificial intelligence's effects on human labor

It is undeniable that artificial intelligence (AI) systems are influencing human work administration more and more. Technically speaking, artificial intelligence (AI) systems can be divided into a few distinct categories.

Robots: A physical entity with some degree of autonomy over its movements or behavior is referred to as a "robot" in our usage of the term. To be able to see the outside environment, a robot makes use of one or more sensor elements which can be of many different kinds. To alter the surroundings, it makes use of actuators which are essentially the moving components under its control. The above definition of a robot includes the ability to sense and manage its surroundings which makes a thermostat a robot. A smart home with its numerous sensors and self-regulating mechanisms is similar. It is interesting to note that robot is of various kinds. But our concern here is on two major categories of robots with specific employment-related implications (Steininger, 2020):

Controlling automated systems: Steerable wheels serve as the primary actuators of a self-driving car, or truck. There are three degrees of freedom in its control system: the steering wheel, the accelerator, and the brake. A robot automobile has more sophisticated sensors. The human driver's perceptive talents must be replaced by them. Despite having a wide range of senses, humans mostly rely on eyesight (and occasionally hearing) when driving. However, a large portion of sensing in a robot automobile is performed by a laser-based technology called Lidar which can map out nearby surfaces and objects. In addition, machine light is used to identify important objects particularly those in its current direction and interpret street signs and road markings, thereby enhancing the vehicle's understanding of stored map data. As an aspect of public transportation, Ohio, a business based in New Zealand, is nearing the deployment of an autonomous vehicle to carry people through Christchurch Airport. Additionally, Ohio is actively involved in other trials worldwide. Many vehicles that use public transportation already have self-driving features like lane-changing and automated parking. All of these cars still need a human operator to operate the wheel. However, a lot of companies are testing fully autonomous cars that can be driven without a driver. Two of such examples are General Motors and Amazon Zoox robots. Twenty million kilometers have been driven on roads by Google's self-driving automobile, Waymo (Pressman, 2020). Self-driving: Although software is sometimes referred to as a "robot," this usage of the phrase will not be addressed here. Tesla is an exception to this rule; it carries out this function using a variety of cameras and radar. Agriculture is likewise anticipated to be somewhat impacted by self-driving tractors, albeit particularly big farms are anticipated to reap the most benefits in this regard (Future, 2019). It is one of the major employment drivers in the Sub-Saharan Africa. Given that it employs over 75% across the continent, while, the transportation industry employed 5% of workers in the EU and 9% of workers in the US and 4% of the workforce in New Zealand.

Robots effectors: Guizzo (2019) defines effector robots as robots with attachments that resemble arms or legs which can be positioned with some degrees of flexibility. A four-legged robot can be utilized for mobility in places that are unsuitable for vehicles with wheels, such as pedestrian walkways with lots of uneven ground. Those robots that have armed-like appendages are useful for an almost limitless variety of performing tasks, such as choosing and placing objects, assembling, inspecting, painting, inter alia. The leading industry in both kinds of effector robots is an American company called "Boston Dynamics". The company produces a wide range of bipedal and quadrupedal robots; some of which include armed-like attachments (for a variety of products). This is because their control systems mostly depend on well-established control algorithms rather than machine learning. These robots are a little different in the field of artificial intelligence (Burridge *et al*., 2019). However, many distinct effector robots utilize higher degrees of machine learning rather than reinforcement learning which is a widely used approach that essentially finds the effector movements that work best to create the intended impact on the object being handled. According to Gu *et al*. (2016) and Openai (2018), Google Deep Mind and Openai are the leading companies in this sector. The agricultural industry in New Zealand offers effector robots the most prospects, most likely. In the fields of processing beef carcasses, systems are already used rather frequently (Scott Technologies). Although there are automated milking systems in operation but industry observers believe that human milking will not be replaced for decades. In terms of automated fruit handling experiments, New Zealand is in the lead. For instance, the systems identify berries or twigs using machine vision algorithms. Furthermore, the equipment of self-driving tractors might be considered manipulating effectors. Because there are so many different methods to manipulate objects, the majority of manipulation robots on the market today are designed specifically for a certain task. Still, research is being done on creating manipulation robots that can operate across domains. These are robots whose physical makeup enables them to carry out a wide range of duties in the home or in an industrial sector. The main obstacle in this situation is getting a robot to learn how to do a specific activity. This can entail either learning via imitation, which is more practical for non-technical users but yields less satisfactory results as of this writing, or developing a tailored reinforcement learning regime, which is attainable but very time-consuming for non-technical end users. Domain-general robots that are useful are still a ways off (McBeth, 2019).

Systems of decisions: Decision systems carry out a more cerebral task for a human user than do robots, according to Groeneveld (2020). Without the assistance of a person, an autonomous decision system decides what to do after gathering pertinent data. This is typical as photo processing technology company control gate can verify whether person's photo matches the one on their automated passport without the need for frequent consultation. In some cases, a decision system advises a policy maker before he/she makes the final choice. We will call it a decision assistance system for the latter. When developing a decision system, there are two common methodologies. First, is the training of a set of sample decisions created that contains some "model" judgments that the system is meant to be able to mimic. Sometimes, the decisions made during training are based on decisions made by those who make decisions. During training, these decisions are based on real-world scenarios where the actual circumstances are now available, or they are based on decisions made by human decision-maker models. The other approach uses optimization techniques to determine what a term's optimum value is. A decision system like this may be used, for instance, to suggest the best method for packing freight containers or to determine which schedule has the fewest conflicts. Formally, these optimization tasks are frequently quite difficult, and finding the provably optimal solution is frequently not attainable in real-world scenarios; in these situations, we have to rely on methods that approach the ideal answer. Learning techniques, especially reinforcement learning techniques, are frequently employed in the best approximations (Alibaba Tech, 2018). Numerous public sector domains employ decision systems that have been educated through these techniques. Recidivism prediction decision support systems are employed in criminal justice. As we previously mentioned, decision support systems that forecast recidivism are utilized in the criminal justice system to guide choices about bail and parole. These are also used by the police to dictate locations during patrols, very important in many aspects of managerial functions such as risk management and financial forecasting, used to plan freight truck routes in the logistics industry and to pinpoint claims in the insurance industry, used in the medical field for tasks including medical scan, diagnosis and research. In agriculture, it helps farmers to make variety of decisions including pairing of animals for reproduction or determining when and how to fertilize or irrigate. Advanced sensor systems that are buried in the ground and gathered exact information about soil moisture contents while monitoring specific animals are commonly used in these agricultural systems. Decision-making by personnel with less expertise is often possible when decision assistance technologies are applied (McKinsey, 2017). However, fewer workers will be required for a range of roles if decision systems are fully autonomous. CCTV surveillance jobs are one instance of this. Certain event categories in videos may be automatically recognized with increasing accuracy. As accuracy increases, fewer untrained workers will be needed to scan videos for these events (Seldon, 2019). In conclusion, a decision system could automate any part of a human profession that requires the repeated competent decision-making of a particular, well-specified type based on electronically accessible facts. In both public and private sector ecosystems, new generation of technically competent entrepreneurs have identified these kinds of isolable judgments in human professions and developed decision-making systems that emulate them. In the private sector where profit maximization is the primary objective, managers are expected to purposefully rearrange human functions to incorporate decision support systems for efficient service delivery. It is therefore evident to assume that such reorganizations will fundamentally result in job loss or the transfer of responsibilities. ACC's rearrangement of work is proof that the public sector can benefit from these efficiency strategies as well (Pichika, 2019).

Decision systems: They may have an effect on human labor domains that are in charge of organizing and governing society in addition to the manufacturing and delivery of commodities. Special emphasis should be given to their potential impact in these areas, and this is an issue that our study will specifically focus on. Our study on the "employment" implications of AI systems takes into account how these systems impact society as a whole in addition to how they affect particular people and their vocations. This topic is usually overlooked in discussions on how AI impacts "jobs," as focus is primarily on individuals rather than organizations (Pichika, 2019). We will focus on the ways in which AI impacts "professions," which we define broadly as spheres of human activity that are critical to the functioning of society. This concept includes the traditional "professions" of law and medicine, but it also includes government service, education, print and online journalism, social services, and law enforcement. This occurs as a result of numerous unofficial and official codes of conduct that employees follow, sometimes informally and sometimes publicly. University instructors, for example, have duties to be "critics and conscience" of the society, journalists to be "upholders of truth"; civil officers to support and bolster society's institutions and thwart corruption. It is the duty of educators and health care providers to give their patients and students "pastoral care". All of these ideas undoubtedly have an aspirational quality but they also have some, if not a big, influence on the choices made by some professions. These regulations could not be implemented with the same thoroughness if decision systems are often used in any of these fields. We also raise the question of how AI might impact decision-making processes in human occupations. This could be due to their complexity in implementation or the disregard shown by system designers (Groeneveld, 2020).

Chat bots: Decision systems, according to Pichika (2019), automate comparatively isolated, "standalone" human decisions. Extended interactions with clients or coworkers are a part of other facets of human labor. Natural language conversations are the most natural way for people to engage with each other. This may happen face-to-face, on the phone, through email or on various social media networks. A chat bot is a new type of AI system that imitates certain human conversational abilities. A chat bot is an AI agent that can carry on a rudimentary conversation. This agent occasionally just uses written language to communicate (email or a messaging app on a phone). It speaks once in a while (over the phone, for instance). Occasionally, it uses a video link to enable interpretation of people's nonverbal cues. The agent can make hand gestures, face expressions, and gestures to objects on a computer screen in these settings. The present generation of chat bots cannot grasp language the same way human beings do since proper natural language understanding is still a problem. In highly specialized and regulated sectors, chatbots seem to be quite capable of understanding a human partner. This is achievable by utilizing a handwritten conversation script. This script outlines many discussion topics that might come up in a particular conversation. For every event, the script predicts a finite collection of possible human speaker replies, represented as speech types. Additionally, it details the answer the agent should give to each kind of utterance in each context and the next dialogue to be engaged in. In the new context, it waits for statement from the users. Modern chatbots rely mostly on supervised machine learning to interpret speech. Each type of statement must be communicated by the human user in a variety of ways depending on the circumstances, therefore the more possibilities accessible the better. In this way, an utterance classification system gains a training set that it may use to learn that certain phrases, such "I'm hungry," "I'm starving," "I haven't eaten all day," and so on; are comparable in a given context and require the same response.

A skilled screenwriter is adept at foreseeing the various speech kinds that could arise in a certain conversational setting and at exhaustively listing the various precise utterance kinds that communicate these various message kinds (Groeneveld, 2020). This type of design allows chatbots to be constructed to carry out conversational tasks across a wide range of human work domains. As we've already discussed in Section B, chatbots can be utilized in the HR domain to interview job applicants in advance of selection. Chatbots are also utilized in other HR-related domains. For example, Ask HR and Lexy are chatbots that may assist employees with a variety of administrative duties, such as scheduling leaves or processing payroll, which are typically handled by HR staff. The usage of chatbots in the health sector is also growing. They are employed to interview patients before they consult with physicians. According to Vanan (2020), Covid screening interviews are a prevalent application nowadays. They are especially frequently employed in the counseling area, where dialogue is employed to both diagnose and cure disorders. Similarly, Simonite (2020) noted that Covid applications are a contemporary trend. Elderly care is another area of medicine and social services in which chat bots are mostly used. Here, chatbots are frequently made to perform a variety of functions, including medication administration, reminding users to take their medications or complete their exercises, providing assistance, responding to inquiries about the care setting, providing details about events that are happening, and acting as a purely social "companion" by being amiable and entertaining. In order to handle consumer complaints and inquiries as well as technical assistance inquiries, chat bots are also frequently utilized in businesses' phone or online call centers. Additionally, chatbots are employed in marketing and sales scenarios (Rauthan, 2019). Companies use websites to advertise their goods on a regular basis. These websites may now be improved by adding a chatbot that acts as a salesperson and can communicate with website visitors in a personalized way if they so desire. A "script" is frequently provided to sales people as parts of their on-the-job training, which indicates that their positions are prime ingredients for consideration. In conclusion, chatbots are finding their way into the field of education (Smutny & Schreiberova, 2020). Teachers and students now frequently have dialogues; having a one-on-one discussion is the ideal educational model. Within the teaching sector, domain-specific problem-solving capabilities can also be included in educational chatbots.

For example, they can be used to create and solve problems in a specific area of mathematics or physics evaluate student responses, and potentially identify specific categories of misunderstandings and errors for a first-of-its-kind system. The constrained domain of a discussion job is what qualifies it for chatbot emulation in each scenario. Script-based chatbots must maintain a predetermined path for the conversation to go; they are not well suited for free-form discussions. In reality, dialogue engineers frequently make sure of this by designing systems in which the dialogue agent initiates the majority of the conversations. Human discussions frequently involve "mixed-initiative" or initiatives from several people at various points in time. In order to elicit as many predictable responses from users as possible, chatbot agents frequently give instructions or pose a series of questions during chatbot talks. Once more, different forms of job restructuring involving human workers are likely to occur in domains where chatbots assist human workers. One thing to note is that there will probably be some intriguing changes to some human employment. In the health sector, for example, this type of hand-over already happens between human practitioners and is a standard component of many workflows. For example, a general practitioner may recommend a patient to a consultant.

Adoption of AI in Public Governance: Implications on job losses in Sub-Saharan Africa

The increasing use of modern technology in workplaces particularly in Sub-Saharan Africa is the reason behind employment polarization. The number of middle-skill employment, such as clerks, craftspeople and machine operators, has decreased due to automation. Ironically, this has been counterbalanced by a rise in lower-skilled jobs such as basic trades and sales and service staff, as well as a rise in the percentage of managers, professionals, and technicians in the labor force. While previous industrial revolutions "de-skilled" labor by reducing it to simpler tasks that could be performed by people with middle-to low-skills, artificial intelligence is "up-skilling" jobs by eliminating the middle skill, high-skill jobs and low-paying jobs (Lee, 2018). These trends were seen in a number of low and middle-income countries particularly between 1period of 995-2012. For instance, between 1995 -2012, the employment proportion of middle-class and low-skilled workers in South Africa significantly declined (World Bank, 2016). Businesses are using big data, sensors, and machine learning increasingly frequently, which has the potential to drastically change the way labor is organized. Employers may be able to better control employee behavior, for instance, by increasing monitoring and surveillance. The ability of businesses to export labor to countries with lower labor costs, such as call centers in India, strengthens their ability to suppress union activity, which is made worse by employees' increasing job insecurity (Bajaj, 2011). Second, it is anticipated that when it comes to harvesting crops and pulling weeds, AI-powered agricultural bots (robots) would do better than people. Even while AI is somewhat in competition with human labor but the reality of African agricultural techniques reduces the overall influence that AI is expected to have.

Moreover, the daily pay of agricultural laborers in Sub-Saharan Africa is significantly less than that of highly industrialized nations. Compared to affluent countries, Sub-Saharan Africa has a lower economic incentive to invest in agricultural automation because to the region's high proportion of very small farms and cheap labor. Therefore, compared to industrialized nations, Sub-Saharan Africa may experience a far smaller detrimental impact from AI on farm labor (Bajaj, 2011).

Theoretical framework

The study theoretical framework is anchored on the Utazi Model (2002).
The Utazi Model is a theoretical construct of an indigenous concept propounded by Duruamaku-Dim in 2002. This model is rooted in the bitters and sweet conditions of Utazi green leaf, which gives a taste of bitterness and sweetness. With this model, Duruamaku-Dim explains that there is a natural condition of man, which does not exclude from pleasure. Rather there is usually a blend or a mixture of pleasure and pain in human experience at any given time, condition or situation. Human life and experience are not strictly divided between pain and pleasure as assumed by the model of economic man or the minimum satisfaction condition of the administrative man, rather man is naturally exposed to the experience of pain and pleasure regardless of which condition weighs more favourably. Consequently, the siemese nature of Utazi taste or leaf, referring to the non-separable and non-segregatory condition of utazi green leaf pointedly reminding public bureaucrats and/or administrators that Artificial Intelligence (AI) has both bitter and sweet conditions weighs more favourably.

Methodology

The study employs the correlational research design, oriented towards determining the status of a phenomenon rather than towards the isolation of causative factor. The descriptive research design essentially and systematically aims at obtaining information to describe a phenomenon, situation, or population and what it exists at present. The justification for the adoption of this design being its ability to lead investigation of the phenomenon as it exists in documented form. It also aids the researcher to appropriately describe the variables under study. Secondary data was also used for information gathering and discussion of findings. This was considered most appropriate because generally it saves times and effort collecting large data which would otherwise have to be collected directly through the primary source.

Discussion findings

A ground-breaking contribution to the conversation about how machine learning will affect employment in recent times is contained in a study by Frey and Osborne (2013). Noting that "the share of occupations that could experience significant automation is actually higher in developing countries than in more advanced ones, where many of these jobs have already disappeared," (Arthur, *et. al.*, 2020). This was accomplished by using the Frey and Osborne (2013) methodology in emerging nations, such as South Africa, Ethiopia and Nigeria in Africa. There are strong caveats against the findings from studies that have concentrated on the automation of tasks rather than entire professions. In order to predict more accurately how AI will affect jobs in Africa, especially in Sub-Saharan Africa, it is crucial to take labor force distribution into account. In Sub-Saharan Africa, the agricultural sector employs about 54% of all workers; in certain individual nations, this percentage even rises to 70%. There are two main applications of AI in agriculture that have the potential to have a big impact and be very valuable (Walch, 2019). First of all, AI has a lot of advantages when it comes to data analysis, just like it does in other industries. As a result, it can be used to predict the weather, optimize planting and harvesting dates, figure out how much fertiliser is needed, and other things. AI in agriculture may increase yields and overall land productivity or efficiency; it is unlikely to have a negative effect on the labor force in African nations. The ability of AI to correctly predict floods, droughts, maximize land use and increase yields, reduces the need for workers in the agricultural sector. As a result, rather of competing with human work, this application of AI might even be beneficial to it.

Conclusion

Artificial intelligence in public governance is essential to Sub-Saharan Africa's ability to provide effective and productive services. Despite its detrimental effects on job loss, artificial intelligence is a new idea that is making its way into Sub-Saharan Africa's governmental and private sector workplaces. Every task at work is now easier and smoother as a result. Since AI technologies continue to disrupt many businesses, as well as a number of facets of our daily lives and society, they have now emerged as a major worry in both academic and public discourses. Because of the anticipated contribution and influence of AI on economies in the future, researchers, industry professionals, and governments worldwide are working to comprehend the ramifications of AI and how best to foster its development. However, there is still a significant divide between established and developing nations when it comes to the development of AI, which, if it is not bridged, might exacerbate already existing disparities between the Global North and South.

Recommendations

Based on the findings above, the following recommendations were made:

1. Having accepted that the use of AI enhances public service efficiency and performance, but it must also be established that the excessive use of AI has a repudiating effect on human jobs which must be tackled if human beings must maintain their dignity.
2. The recent lay-off of staff by Google and Microsoft are clear manifestations and/or testaments to the concomitant effect of the use of AI and as such must be disregarded if human beings must control the universe as it were.

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