



EXPLORING ARTIFICIAL INTELLIGENCE FOR RECORDS AND ARCHIVAL MANAGEMENT SYSTEM (AI-RAMS) FOR NIGERIAN PUBLIC ORGANIZATIONS

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Abstract

This paper is an academic review of literature perspective on Artificial Intelligence (AI) and benefits for records and archival management system in Nigerian public establishments. In the paper are the concept of AI as a computer-generated reality of human intelligence machine structured and accepted for doing human task with increased efficiency and security of data and information in the production and management processes; the affirmed sophisticated and overwhelming proficiency of the AI in assured fields of human endeavors; the negative impact of the AI on the human economy; as well as the state of records and archival management in Nigerian public establishments and the benefits of the application of AI for records and archival management system for the Nigerian public establishments.

Key words: Archival, Records, Management, Artificial Intelligence

Introduction

In any organization, the conventional records management system can sometimes be a complex process that requires specialized skills and knowledge of records managers to organize, store, index, archive and retrieve documents for administrative and research purposes. However, with the rapidly advances in technology, various software systems have emerged to ease records efficiency and archival management. Although many organizations are already adopting some of these software applications, various literature and survey observations have indicated non-compliance by many Nigerian public organizations. Today, with the more and more technology advances, another era of artificial intelligence (AI) that could go for more efficient and effective records and archival management archetype, has emerged.

Artificial intelligence is a special software machine that is structured and accepted for doing human task with increased efficiency and security in the production and in management processes. It is a virtual reality of human intelligence software that is designed to act and exhibit similar human behavioral pattern in problem solving state of affairs. Specifically, it is a computer improved system - a human like machine robot with human capacity cognitive actions that can mimic and perform human tasks effortlessly. Frankenfield (2022) averred that it is based on the principle of human intelligence defined in a machine to simply mimic and execute any human task from the most simple to the complex tasks.

Currently, the application of artificial intelligence (AI) is widely evolving in many fields with its clear-cut, sophisticated and overwhelming proficiency. Konfuzio (2022) affirmed that AI ensures multiple and specific upload of task and that it can integrate with other system solutions for super results. In education, AI is already being applied as machine learning in teaching methods, learning and research with increasing competences in verification of scientific enquiry, discovery and accurate outcomes. Similarly, in the health sector, automated disease diagnoses are now practiced with the emergence of AI devices. Duggal (2023) declared that AI is today the motivating strength behind several new innovative breakthroughs in the health sector and that recent advances in AI-based technologies have aided doctors to detect and treat breast cancer. In the banking industry, the artificial intelligence (AI) is also playing a very significant role in fraud detection and security management, financial advisory services like in sales and recommendation of financial products, investment and trading opportunities in some other specific financial management issues. Correspondingly, in general administration, AI application is growing every day and being applied in new job designs, processing unfathomable data and information for quick decision making in large industrial and management organizations.

Many writers have also emphasized that the AI machine can be amazingly applied in many processes. Hegedus (2020) clearly asserted that with AI machine, one can do any job more than one would have ever imagined. Undoubtedly, applying this machine for records and archival management system in the Nigerian public establishments would also provide excellent management control system and valuable documentation for all-time research and development. Johnson & Ziga (2022) accentuated that AI machine promotes good value and reliability for products and management systems. Similarly, Bukas (nd.) posited that AI machine is a guarantee for all-inclusive trust, timely availability and coverage of information needed for administrative efficacy and research. Akhawmen (2022) also observed that the AI machine can be applied for diverse operations and that the machine is not

vulnerable to any how human interferences. Consequently, adopting this machine for records and archival materials will no doubt be a unique process in arresting the many sad constraints of records and archiving management issues reported in diverse literature in Nigeria. Various literature have already shown that by the capacity of the AI machine, is it possible to customize an organizational records and archival objects by collecting and building a sophisticated AI language and algorithms that would interface with the organizational records and archival management policy and have a robust in-house AI-records and archival management system (AI-RAMS).

Generally, it is indisputable that Nigeria public organizations need to demonstrate good values for their records and archival materials by adopting an acceptable innovative management system like the AI machine. At present, several researchers have decried the poor state of records and archival management system in the country. There are reports of deficiencies in innovation and adoption of up-to-date technology models for records and archival management objects. For instance, many big public organizations that are supposed to be the leading hub for use of the sustainable records and archival management replicas, are either at infancy in planning or at stalemate in their implementation attempt due to inexperienced records staff, lack of technical experts, management apathy, poor funding or embezzlement.

At the moment, the state of records and archival management in Nigeria is worrisome. Authors such as Audu (2020) and Akinloye (2021) have described the situation as pithily lamentable. Both authors noted in their separate work that the house-keeping systems were outdated and grossly unfashionable and then called on stakeholders to wake up from their slumber and migrate to innovative technology management systems that would properly manage their records and archival objects. Many other authors have also pointed at different points that the country is not doing enough as regards to technological applications in records and archival management. Jamgbadi (2021) and Nearo & Ode (2022) posited that in developing societies, digital records and archival management system have still not be fully embraced. Now, another era of AI technology is here and undoubtedly launching us into a deeper fascinating technology driven evolution. Nigeria as a country cannot shy away from this reality. Applying the AI technology for records and archival management system in the country public sector establishments, would be striding along the pioneering League of Nations in the new AI machine-world-order.

Objectives of the Study

The main objective of this study is to appraise literature perspectives on AI proficiency for organizational management processes. Specifically, the study seeks out:

- a) the concept and proficiency of AI machine in organizations,
- b) the state of records and archival management system in Nigerian, and
- c) the benefits applying of AI-records and archival management system (AI-RAMS) for Nigerian public establishments.

Method of the Study

The study adopted literature appraisal method, recognizance survey of five main public establishments in each of the six geo-political zone of the country to clarify the records and archival management policies in places and use of Internet and print based resources – textbooks, journals, conference papers, scholarly website posts etc. Basic terms were used to search the previewed related theoretical and pragmatic contents of the subject matter comprising the scope, data appraisals and their findings. The Information gathered were organized and discussed in relations with the subject matter of the study for expediency and reliability of the major concept.

Proficiency of AI in Management

Various writers have acknowledged the competencies of the artificial intelligence (AI) machine in eliminating human error in task, duplication, waste, laziness, monotony and increasing the accuracy, reliability, authority and innovation in production value and managerial processes. Duggal (2023) asserted that resolutions taken by AI robot at every stage are based on the information previously collected with a certain set of algorithms and that when such data and information are programmed accurately, errors are reduced to valueless. Vwevon (2022) acknowledged that in certain establishments and industrial organizations, the AI machines are structured with the capacity to detect and avert hazards especially in the areas of protection of data and information from vulnerability, exploration and experiment, construction work, threats, predicting weather condition, etc. For information and management challenges cutting edge organizations, the AI machine has also been recognized with the dimension of overcoming profound amount of information overload, data accuracy and integrity breaches, the maintenance of compliance with regulations and standards, etc. From our survey observation, it is well possible to engage AI machine in managing records and archival objects in Nigerian public organizations and eliminate the poor records retrieval and missing retention schedules that are often experienced in most of the organizations and generate more job opportunities for people.

At present, a lot of literature have illustrated how AI is creating lots of jobs capacities for young individuals and thus addressing the issue of unemployment in many

economies. For instance, Eshna (2023) stated that in this decade, AI would generate approximately 2.8 million jobs because of its capacity to produce AI machine learning engineer, robotic experts, research and data scientists, business intelligence brains, AI product manager, AI consultant, robotic engineer, research associates, and profound learning engineer, etc. This author has also affirmed that AI is already in high demand across industries and organizations for expert system automation, data mining, face identification, weaponry, speech and vision recognitions, search programs, gaming, etc. Tambekar (2023) affirmed that AI will generate opportunity for a new category of jobs for machine learning engineers, AI trainers, natural language processing engineers, AI specialists, deep learning engineers, data scientists, etc. Hazim (2017) acknowledged many organizations are accepting the AI robot because it can work and reflect faster than the human brain, handle tedious monotonous task with accuracy and precision. While human may be productive for few hours, Hazim (2017) observed, the AI could work manifold tasks ceaselessly without disruption. Besides, AI machine do not necessarily need break to rest or cool up as humans will ensure when bored or fatigued. Specifically, these assertions are alluring and enough for any organization to accept the genuineness of the AI machine for her operations.

However, while the artificial intelligence (AI) machine may have these numerous proficiency and operational advantages, many writers have similarly pin-pointed some of its drawbacks. Eliacik (2022) posited several possible negative impact of AI machine on the economy to include but not limited to creating unemployment, high cost of installation and operations, lack of self-thinking and creativity, making humans lazy, emotionless, dominance, etc. In a related view, Akhawmen (2022) likewise argued that AI has great limit unlike the human brain capacity which cannot degenerate or be limited. Moreover, the intelligent machine is the making of the human and can never be more intelligent than the human brain that created it. Also on another stance, Mashilo (2022), Vwevon (2022) & Duggal (2023) all asserted that the AI has the competence to swap records specialists in an organization since it can implement activities executed by records practitioners and even more precisely. It may also be safely asserted that vulnerability and compromise could be possible with the AI since the machine work on data and algorithm inputted and directed by humans who may deliberately be bias or dubious in the inputting processes so as to twat an organizational progress.

But, despite the drawbacks, the proficiency of the artificial intelligence machine undoubtedly still outweigh its disapprovals. In advanced countries, AI robots have been described to keeping humans in leading positions of supervisory and executive roles in manufacturing industries and in business and administration. AI machine has also been acknowledged as the most convenient, secured and safer tool for records and archival management especially in the area of records vulnerability and

unauthorized retrieval activities. Additionally, AI machine is the most efficient mechanism for detecting cyber-crimes and giving alert of espionage activities. No doubt, Omigie & Nwadioha (2017) posited that any malicious attacks could smartly be returned back to sender.

State of Records and Archival Management in Nigerian

Generally, every organization relies heavily on data and information in records for the systematic and efficient control of their day-to-day functional activities. This made records and archival management an essential and inevitable process for administration. Specifically, no nation can develop without reference, at one time or the other, to records and archival resources. From our survey observations, Nigerian public establishments are well over 640 in number located in the various ministries, agencies and departments of agriculture, aviation, the communications, economy, education, energy, the environment, health, intelligence, judiciary, maritime, media, security, science and technology, in the water resources and other unmentioned set ups. Records and archival resource management system are imperative for the effective provisions of data and information for research and development. During our survey, we observed that the conventional records and archival management systems that still pervaded most establishments visited were no longer facilitating the ease and needs of modern research and development. Modern society wants something smarter like the AI machine. Similarly, Adebisi (2021) stated in a report on the state of records management system in Local Government Areas in Oyo State of Nigeria that the records and archival objects were in paper files and diskettes deposited in some abandoned drawers, cupboards, opened wooden and metal shelves, steel file cabinets, tables and on the floors. According to the author, the records which were mostly official papers of correspondence, gazettes, staff information, proceedings, manuscripts, photographs, artworks, diaries, tax records and budget papers were uncared for even though they were still vital for future needs. Bakare, Abioye and Issa (2016), Akens (2019) and Tiawo (2021) have all affirmed that in modern time, organizational records are for planning and implementation of administrative actions for effective problem solving and communication and that such records should be properly managed and archived using digital processes. But sadly, Kolade (2016) in citing Iwhiwhu (2005) lamented that many Nigerian public organizations have no records management policy and standards for records filing, appraisal, retention and disposition schedules, trained records and archival specialists, adequate computer facilities for records storage, preservation and retrieval methods, etc. In the same vain, Muhammad, Mannan & Farashi (2021) also in citing Idris (2017) decried the lack of records legislation and application of new technologies to handle records in many Nigerian government agencies and organizations. Akens (2019) painfully observed that several government agencies and establishments in Nigeria have no such common technology records processing systems such as the electronic records management system (ERMS), e-records support system (E-RSS) or the online transaction records management system

(OTRS) for planning and administration. Presently in many countries, the AI machine is the trending technology for production processes, designing new jobs, structuring records system and managing standards for organizations.

Idiko (2019) studied the records and archival management challenges in some of the federal universities in South-South Nigeria and discovered that there were no established rules for the collection, classification and retrieval schemas for archival materials in any of the institutions studied. In a related view, Amodu (2019) observed that in some institutions in the country where digital archival software were said to be adopted to help put records in safe and accessible place with restricted access to unauthorized persons, such systems were never put in use in the institutions due to dearth of technical experts to management them. Globusman (2018) described such attitude as a clear demonstration of government apathy to records and archival management system in the country. Yet, Muhammad, et al (2022) studied the records management practices in some of the Nigerian public institutions in Kaduna State of the country and found shortage of professionalism, over dependence on registry staff with no standard trainings, pitiable records arrangement and premature destruction of records as some problematic issues unaddressed. Again, in another study of the state of information management policy in higher education in Delta State of the country, Akens and Akens (2022) reported the inefficiency in information resources management, high cost of information generation with no timely accessibility of records. The authors noted that the institutions were operating without standard guideline policies for managing their records and that there were often reports of some records not retraceable.

AI-records and Archival Management System (AI-RAMS)

Artificial intelligence is a substantial technology software designed for efficiency control of the processes of production, management, research, security and development which does not allow human interferences in operations. Its application in administrative records and archiving control system in Nigeria would provide a new sustainable paradigm for records and archival management system in the country's public organizations. Although at present some document management and archiving software are in the market for records and archiving management, they are not free from any how human alterations. A new AI-RAMS is to provide a better, harmless and accurate storage capacity standard for large volumes of organization's records and provide easy access to the records through one acceptable point. The machine could be structured to provide the capacity for self-controlled mechanism that can interact with records and archival users, prohibit alteration, destruction and detect any form of records espionage using algorithms.

With AI-RAMS, records can be auto optimized in portal and allow Internet access through log in app and give direct response to the users through login PIN. We also observed during our survey a very slow processes, inaccuracy and unnecessary intrusion into the records systems. AI processing of records would guarantee security, faster, error free, interactive and operational cost-effective records for any

large establishment. Furthermore, the AI-RAMS) would promote greater quality control assurance for the sustainability of records and archival objects. Reece (2021) believed that AI capacities can deliver the most significant and undisruptive innovations that would reshape how we live and work in this century and even beyond. The point here is that, this digital evolution would create more technology models with solutions that would serve management processes satisfactorily. Already, the Internet of Things (IoT) is enabling seamless access to extraordinary amount of data and information that by 2025, HireOtter (2023) asserted, the global AI and IoT market would reach an estimated over \$26.79 billion at a growing rate of a compound annual growth rate (CAGR) of 29.6% because of its growing capacity in management development.

Again, a structurally customized AI machine capacity for records and archiving management system would come to be the ultimate and inevitable system for facilitating easy multiple integration of effective data uploads, maintaining records integrity and creating appropriate metadata as well as encryption of statistics with full classification pointer. Nigerian agencies and organizations should begin to think along this line and document their records using the AI machine systems. Reece (2021) noted the need for consistent conserving and sustaining of records and information in safe and protected manner. In the same vain, Konfuzio (2022) stressed the necessity for technology accelerated and standardized digital archiving of records to ease and simplify access to relevant records for research and fast decision making in organizations. These axiom can be more sustainably with the AI machine cognitive approach that guarantees unnecessary intrusions.

Even now, AI systems are providing cutting edge of boundless opportunities for expert in many institutions to research and development vast volume of data in a smart better way than the human intelligent (HI). With AI machine capacity, it is practically possible to audit a big organization's records and systematically manage the processes in records appraisal before archiving and the eventual disposition of records. Konfuzio (2022) affirmed that AI can be used to validate records for integrity, process metadata and make records incredibly significant and be track able. With AI, it is also possible for public organizations to frequently input new records and allow authenticity because the AI can remove any hindrance, standardize the records and accelerate the archiving processes with simple access to the records.

In addition to the AI strategic storage and preservation capacity, its authentication and security of records from venerability can be done robotically using classification schemas and it imputed control modification and exclusion capability. As Oslowan (2021) affirmed, AI can swim through unstructured records and information to identify the content and format, get rid of cloudiness, misplaced records and duplication because of its capacity to check multiple files at any point in the processing stages. Each public organization can also customized their AI-RAMS standard to efficiently audit and index their records at any point with references to map records and permit efficient archival with ease of access and use. This would be

a novelty and value added for records and archiving management system in Nigerian public organizations.

Conclusion

This paper has established that AI-records and archiving management system (AI-RAMS) is essential for Nigerian public organizations. AI machine is durable and ease to use for effective storage, preservation, archiving and retrieval of records. AI records and archiving management system machine software have the capacity to identify records and objects, catalogue, schedule, color code, index and backup upload and update records into archives by using security private code and PIN. With the AI evolution, Nigerian public organizations should now be concerned at migrating into these new benefits to boost their records and archival management techniques. Records and archival resources are national heritage that must be cherished. Neglecting our records and archival management system is an aberration from AI-global trends which should be twatted. Already, a lot have been reported about the deplorable and shameful situations of records and archival management system in Nigeria, now is the time to adopt what would help the sustainability of a trusted records and archival system in the country for information and data for research and development.

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