

Digitalization and Artificial Intelligence for Transformation of Office Technology and Management

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Abstract

Digitalization is the converting of physical records into digital records that is searchable and can be accessed and retrieved in the same manner or in other way round the converting of analogy records into digital records while artificial intelligence is the digitalized way of using machines, symbol and sounds scientifically to carry out jobs that are supposed to be done by humans. That this digitalized way of doing jobs is free from human errors that hinder efficiency. Our offices are managed in an analogy way with pros and cons – missing files and inappropriate records that pose problems/challenges. On the part of workers cumbersome, stressful and discomfort that reduces the progress expected to be achieved. At this juncture, this paper will focus on digitalization and artificial intelligence in an office, effects of digitalization and artificial intelligence on the office workers, benefits of digitalisation and artificial intelligence on the organisation and the challenges of digitalization and artificial intelligence.

Keywords: *Digitalization, Artificial intelligence, Office, Files, Duties, Records*

Introduction

Digitalization is known to be the converting of physical records into digital that is searchable and can be accessed and retrieved in the same manner or converting analogy into digital. Our offices are managed in analogy method in which files and other records are physically managed with pros and cons missing files and in-appropriate records that poses problems in our offices. Artificial intelligence is the digitalized way of using machines, symbols and sounds scientifically to carry out job that are supposed to be done by human (Manhein, M.B. & Lee, J. (2020). That this digitalized way of doing jobs is free from human errors that hinder efficiency. That artificial intelligence (AI) helps to automate repetitive tasks, improve communication workflows and optimize scheduling, reporting and document management processes. Degler, R. & Mathias, B. (2018) states that artificial intelligence aids an office to interpret data, generate actionable insights and apply predictive tools that improve organisational performance. In addition, that artificial intelligence leads to digital transformation initiatives and helps to equip one with the knowledge and tools necessary to improve productivity, enhance service delivery and places a person as a forward-thinking professional in an increasingly artificial intelligence driven workplace. However, the foundation of modern office/business transformation is digitalization that involves converting manual paper-based, or analogy systems into digital formats to improve efficiency, accessibility and collaboration. Hence digitalization and artificial intelligence have all the capacity to transform office technology and management.

Conceptual Clarification

Every office is looking out for how best to offer services in the organisation and outside the organisation. Therefore, the solution of digitalization and artificial intelligence is a welcome solution. Manhein, M.B. et al (2020) states that digitalization is the process of converting analogy processes and physical information into digital formats. Degler, R. et al (2018) emphasis that digitalization focuses on improving accessibility, efficiency and data storage by moving from manual systems to cloud-based or software driven tools. Chancas, S., Myers, M.D. & Hess, T. (2019) states that in undergoing digitalization, paper documents are scanned into a searchable database or replace physical timesheets with a mobile application (app). Argued Alneyeini, A.W., Almageed, M.K.A., Flayyih, H.H. & Muradi, A.H. (2022) that in digitalization, there must be conversion of analogy processes and physical information into digital formats. Manhein, M.B. et al (2020) is of the opinion when they said that paper documents should be scanned into a searchable database or replacing physical timesheets with mobile app. This implies that nothing should be done manually and every manual process must be converted to digital to ensure digitally operation and efficiency. Janabi, A.H., Aknadim A.A.G., Mhaibes, H.A. & Flayyih, H.H. (2024) states that artificial intelligence (AI) empowers an effective automate routine administrative task of scheduling, email management and reporting using artificial intelligence (AI) powered tools, platforms, supports informed decision making and improve organisational efficiency. Bouncken, R.B., Kraus, S. & Roig-ermo, N. (2021) emphases that artificial intelligence (AI) integrates technologies into existing office systems and workflows without disrupting productivity or team collaborations. Sundstron, M. & Egels-zand'en, N. (2016) affirms that artificial intelligence enhances communication processes by leveraging tools for drafting, summarising and optimising professional correspondence and documentation and aid in document management systems through classification, retrieval and intelligent organisation of files. Augur ably this implies that artificial intelligence (AI) covers all aspects of office management and even proffers and hasten decision making in the office. According to Cukusic, M. (2021) artificial intelligence (AI) "bridges the gap between technical innovation and administrative application". Androle, S.I. (2017) states that artificial intelligence (AI) enhances secure communication and safeguarding sensitive information as privacy is paramount and that it helps to maintain credibility and meet modern security standards. Chierici, R., Tortona, D., Del Gudice, M. & Quacquarell, B. (2021) states that sensitive data is encrypted during transformation and storage, protecting users from man in the middle attacks or unauthorised access.

Digitalization and Artificial Intelligence in an Office

An office is run on analogy and duties discharged manually which is prone to errors and delay in the accomplishment of task. The presence of digitalization and artificial intelligence has changed the way and manner duties are discharged in the office. Digitalization and artificial intelligence convert analogy records into digital and manages and transmits information digitally. Manhein, M.B. & Lee, J. (2020) states that artificial intelligence helps to automate repetitive tasks, improve communication workflows and optimize scheduling, reporting and document management processes. That Artificial intelligence aids an office to interpret data, generate actionable in sights and apply predictive tools that improve effective performance in the office. Digitalization and artificial intelligence bring about speed and accurate records that has overcome the challenges envisaged in the analogy way of discharging duties. That digitalization and artificial intelligence enable and equips office workers with the knowledge and tools necessary to improve productivity, enhance service delivery and places the worker as a forward-thinking professionals in an increasingly AI

driven workplace. The challenges of missing files and documents is tackled with digitalisation and artificial intelligence which makes easy the storing and retrieval of files and documents and provides management with the needed records for proper decision taking that leads to effectiveness and efficiency. Boghian O.I., & Socolui F.A., (2020)

Effects of Digitalization and Artificial Intelligence on Office Workers

Office workers feels and responds to emotions either through tiredness, stress or boredom are actually beefed up with digitalization and artificial intelligence. Office workers now work with comfort and satisfaction because of the enhanced knowledge and availability of aid tools that increase service delivery that equips the office workers with expertise skills for effectiveness. Ungur, E.M. & Cuciureanu, F.A, (2017) states that office workers navigate the office work from their homes without the stress of travelling down to the office. That busy executives attend to meetings right in their homes, make inputs to the meeting without being present in the meeting venue. That workers professionalism is enhanced through recorded responses by leveraging tools for drafting, summarising and optimising professional correspondence documentation and aid in document management systems, through classification, retrieval and intelligent organisation of files. That digitalization and artificial intelligence helps in exposing the office worker with emerging trends and future administrative roles, responsibilities and required competence for best practice procedure that enables for excellent results.

Benefits of Digitalization and Artificial Intelligence to an Organisation

Many organisations have been grappling with challenges that hinder the progress of the organisation. These challenges have grown so enormous that their devastation is seen and known by all and sundry yet the measures of corrections in the analogy form proved abortive hence many sectors in an organisation is very porous to handle and is militating against the progress of the organisation experiencing some sectors or segments difficult to manage. The remedy is the digitalization of such sectors or segments for an enhanced effectiveness. The digitalization will make all transactions and processes of the organisation transparent and all misbehaviour averted for effectiveness and efficiency. In addition, that cost is saved through digitalisation and artificial intelligence as the automation helps in the accurate control of certain devices that averts wastes and lead to saving of costs. Boghian, O.I. & Socoliu, F.A. (2020), states that energy efficiency is gotten through intelligent monitoring and automation. Again, that employees' personalized work environments are enhanced through the use of smart office technology to satisfaction and performance as well as the saving of costs through optimized space utilization and reduced operational expenses. Moreover, on the part of checking mating staff attendance to duties and ensuring that staff does not use their man hour to selfish interest. That digitalization and artificial intelligence does this through ensuring that staff attendance is checkmated through the automation of biometric check in/check out which provides accurate attendance of staff who comes to work, who does the work and leaves the office at the appropriate time. This too saves costs as offenders are surcharged for man hour lost or laid off depending on the degree of the offence committed as all records are accurate and readily available for decision taking. Burnett, K. & List, A. (2019) affirms that digitalization and artificial intelligence brings about efficient data on staff attendance to duty without delay through the use of machine check in/check out.

Challenges of Digitalization and Artificial Intelligence

The development of any automation sensors and devices should be based on the needs and objectives of the office ensuring that the objectives are well enshrined into the device or

sensor when developing it or else results will not be achieved. Offices should know what they want and the result they expect to get at the end must be well spelt out and every other information needed to achieve result must be included in the database for proper accessibility of results. An automation that is not properly developed the issue of “garbage in and garbage out” will abound. The non-availability of power supply poses great challenges as digitalization and artificial intelligence are powered by electricity. Offices without regular supply of electricity faces disruptions and do not reap the benefits accruing from digitalization and artificial intelligence. Some days of disabling digitalization and artificial intelligence and some days of use cannot yield full benefits of digitalization and artificial intelligence. Gurbaaxani, V. & Dunkle, D. (2019) and Eden, R., Burton, J.A., Casey, V., & Draheim, M. (2019) Moreover, the non-training and retraining of staff both new and old on the use of current trends of digitalization and artificial intelligence causes damages and when the cost of maintenance is very high, they resort to some days of use and some days of non-use which definitely defeats the aim. The choice of expensive sensors and devices for automation also poses great challenges due to maintenance. The choice of affordable sensors and devices that are easy to maintain should be well considered before making choice or else the organisation may be unable to forge ahead with usage of digitalization and artificial intelligence. The engagement of non-expert vendor also poses challenges to the use of digitalization and artificial intelligence as an adage says “if the foundation is bad what can the just man do”. If an inexperienced vendor is engaged and the devices are not properly developed from the beginning, it will continually pose challenges. Therefore, to avoid challenges expert vendor who knows his onion will be engaged (Venkalesh, A. & Bala, D.K. 2006).

Conclusion

Digitalisation and artificial intelligence transform the technologies and management of office by ensuring digital discharge of duties and helps the office to reap the benefit of digitalization. It ensures the management of files digitally and eliminates the hurdles in the management of physical files through efficient transfers of files/documents and easy retrieval of files/documents hence eliminates cases of missing files. Communication processes are greatly enhanced as sound and quality information are created and disseminated without wasting of time as it provides clients/customers with instant and update feedback hence bridging the gap of delay in communication. Decision making is greatly enhanced through digitalisation and artificial intelligence due to artificial intelligence decision aid provisions, sound and effective decisions are made without delay hence help in eliminating the challenges of delay in decision making. Hence, digitalization and artificial intelligence transforms technology and management of the office.

Recommendation

Based on the aforementioned, this paper recommends as follows:

- Every managers of office that wants to progress should key into digitalization and artificial intelligence to have a relief from the problems/challenges of manual operations;
- Every managers of office should train their employees with new technologies as it requires move from analogy to digital.
- Expert vendors of digital and artificial intelligence should be engaged to ensure proper installation and training.
- All employees of office management should endeavour to be part and parcel of the trends.
- Organisations wishing to adopt digital and artificial intelligence should adopt the devices or sensors they can afford and maintain.

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