STREAMLINING CLOUD APPLICATION WITH AI TECHNOLOGY

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ABSTRACT

Artificial intelligence (AI) technology refers to imitating human intelligence in machines programmed to think like a human being and imitate their actions. Artificial intelligence is also associated with the human mind, including problem-solving. Artificial intelligence technology has turned to be a necessity in promoting the function of cloud applications. Cloud applications are adopted in a cloud environment instead of being hosted on a local machine or server. In the future, artificial intelligence (AI) is likely to effectively change cloud application performance and transform both marketing strategies, organization workflow, and customer behaviors. With artificial intelligence, organizations can streamline cloud computing applications necessary in organization servers and machines.

Cloud applications include machines necessary in facilitating management, receipts, and making payments. The most organization consists of a back-office where critical organization activities don't directly involve the clients. Back-office operations improve the organization's activities, and artificial intelligence is enhancing successful operations in organization activities. These operations include facility management, receipts, and the making of payments. Such activities involve human activities and can improve business processes through artificial intelligence-enabled technologies and systems. This paper will focus on implementing artificial technology in improving order-to-cash processes in organization cloud computing applications. These processes include all activities from customer placing the order to receiving payment on the orders.

KEYWORDS: artificial intelligence (AI), Cloud Applications, Machine Learning, Data.

INTRODUCTION

Currently, data or information has remained to be an essential element in organization growth and development. Since we are in the digital transformation era, data-driven organizations focus on artificial intelligence (AI) for streamlining cloud applications and future data analysis. In numerous ways, cloud computing and AI creates a perfect match for digital innovations. The digital innovations and cloud computing activities support the organizations in solving data-related challenges, effectively learn the organization patterns, and develop effective decisions towards organizational success. Artificial intelligence (AI) reasonable capabilities and machine learning prosper on high volumes of data, making scalable and accessible in a cloud environment. Organizations that implement AI in the cloud provide huge critical advantages to the organization. This paper will effectively address the goals of streamlining cloud applications with AI technology.

LITERATURE REVIEW

Availability of data in organizations has been successful in processing organization transactions, including clients order. Can increase these achievements through the additional implementation of AI in cloud applications. According to the developed research, AI technology benefits cloud applications, which improves their performance. The initial benefit from AI is unpredicted data access. Artificial intelligence technology (AI) feeds off data, where increased data access enables it to perform better. Compared to traditional data storage approaches, the cloud applications environment supports high volumes of data without delayed

accessibility. It is necessary to learn the organization patterns on consumer behavior and effectively process client order (Memmi, 2014).

Moreover, the need to streamline cloud ethnology using AI technology is that cloud application s consisting of AI technology learns from data collected, build predictions and analyze and solve potential challenges in a company or organization before their occurrence. AI technology and machine learning are useful in transferring data from one cloud application to a server or software. This is important in sharing the critical data necessary in promoting the organization's success through successful analysis data. AI technology develops a hybrid cloud applications environment, and accessibility, seamless movement enhances crucial connectivity toward supporting order processing and facilitating effective management of organization activities. Unlike in the past decades, attaching AI technology to hybrid cloud industries and organizations will successfully control and manage data. Companies or organization that connects AI technology with cloud applications obtains data solutions insights and scalability to develop organization standards and support innovations, through maximizing the utilization of assets possessed in the company (Bharathi & Neelamegam, 2012).

Basing on the conducted research, streamlining cloud applications with AI technology will contribute to smarter decision-making in an organizational environment. Therefore, when an organization connects data to cloud applications and AI technology, the organization can identify patterns and trends in various data sets relating to various products and consumer behavior, which improves the operation in processing orders, payments, and production of receipts on delivered goods. Again, learning organization trends and patterns allows the organization to introduce new management strategies to promote positive outcomes. In the cloud application environment, artificial intelligence technology learns from the historical data, recognizes the current patterns, and creates recommendations for improvement in the organization's low-performing areas. This automated process allows the organization to eliminate human errors during data analysis (Umamakeswa et al., 2012).

Artificial intelligence (AI) technology significantly quickens data analysis that benefits both the organization and its clients. The clients learn the organization's performance from its financial statements, which helps them learn its sustainability in providing goods and services. After data analysis, the organization receives the data insights, and the organization generates suggestions towards solutions on customers and characteristics reflected on data and insights. Also, the clients receive recommendations best for their requirements through the efficient provision of satisfactory products. Therefore, the implementation of AI technology benefits all stakeholders in an organization. It includes implementing the current machine in production, which creates a conducive environment for the employees and increases output volume in the organization. Streamlining cloud applications with AI technology stimulates organization revenue through useful analysis that supports accurate decisions that promote growth and development. The organization data's statistical results provide recommendations toward organization success and production of high-quality products (Wettinger et al., 2016).

The productive aim toward joining cloud applications and AI technology is to promote economic or cost-saving.Cloud applications enable the organization to purchase the needed storage during need, thus eliminating the traditional storage infrastructure expenses. Through these strategies, the organization can successfully save on costs for AI technology growth. With reduced physical data centers' reduced costs, AI technology products' expenses will decrease, promoting cloud applications' successful operation. Cloud applications and AI technology reduce the organization's need to invest in research and development. Through AI technology and cloud applications, the organization can reduce costs in research and leverage research themselves. Saving on costs supports the growth of AI in technology in the organization (Karthic et al., 2012).

According to the experts, cloud and AI blend efficiently in diverse ways, where AI is a technology that revolutionizes cloud computing solutions. AI technology improves the existing cloud application solutions and develops new paths appropriate for development. The AI technology develops machine learning approaches in supplying a large amount of data, making it easy for cloud applications functioning. The machine learning approach helps min learning different patterns from different types of analyzed data. The provision of a high amount of data enables better predictions and improves accuracy in data processing. The organization implements the reflected pattern from the given data to customize various functions basing on the organization's projects (Mirzayi & Rafe, 2015).

With AI technology, the organization can effectively participate in data mining that supports the organization in transforming raw and unstructured data to useful information necessary for its performance. The advancement in the computational techniques uniting cloud applications to AI technology has become crucial in combining CPU and GPUs. However, cloud application providers can now provide virtual machines consisting of powerful GPUs. AI technology is also supporting the automation of machine learning responsibilities using numerous services, including server less computing, batch processing, or orchestration of containers. Infrastructure-as-a-service (IaaS) supports the organization in managing prediction analytics (Kumar, 2016).

AI technology benefits the organization in speech, vision, text analytics, and machine language translations. Moreover, unlike in hard drive or other local storage devices that need IT management skills, software patching, hardware setup and stacking, and racking, combining cloud application to AI technology allows the applications to be internet-based. Thus, there is no need for such items. Hence, it builds a better environment for IT professionals to focus on other organizational goals to improve their performance. AI technology builds cloud applications' reliability by providing solutions that ensure organization continuity, efficient data backup, and more comfortable recovery from disaster. AI applications have high performance in severs that consist of multiple and efficient graphics processing units; thus, it will help process the client orders and keep accurate customer information. AI services in cloud applications development are accessible to the organization at more affordable prices that effectively implement them for better performance in organization activities and enhance consumer satisfaction ("IEEE Cloud Computing Call for Papers: Intelligence in the Cloud", 2016).

Surprisingly, the different organizations still use paper invoices to seek payment from clients. However, AI technology is implemented to empower the organization's accounts or systems to ensure that they receive their payments on time. AI-empowered cloud applications on order to cash services can effectively help the organization on its payment by correcting different errors from human activities and ensuring all things learn effectively in the organization. The intelligent systems also support the company in solving the dispute that may arise, examine and successfully resolve the refund requests and analyze any issues arising from financial transactions (Elmahouti et al., 2017).

The systems analyze the different instances and effectively reduce the errors included when invoicing since the AI systems can effectively recognize patterns in documents and transactions. Not only can handling payment processes AI technology systems also effectively identify the organization's best clients.   The artificial intelligent systems can analyze the customer data on who pays on time, buys regularly and the specific type of the customer buys. Such features create the need to streamlined cloud applications to AI technology to enable the organization to learn its client patterns to develop appropriate production strategies to assure consumer satisfaction. Efficient analysis of data helps the organization measure the performance of its clients. Using machine learning analysis helps recognize all problems associated with the produced products to develop conversations with the clients to develop self-satisfying products (Wang et al., 2013).

 Collecting consumers' feedback supports the organization in creating better relations with the customers, increasing its revenue. Building a better relationship with the client creates a better reputation for the

organization, attracting more clients and promoting its success in sales. AI combination to cloud application allows the organization to have an adequate connection to the internet, supporting online marketing and e-commerce. Online marketing and e-commerce are the major strategies implemented in the organization since industries and other businesses can gain a large market share. AI technology builds robust network systems that effectively perform trading activities through online platforms and accurately perform financial transactions on delivered products. The use of social media platforms supports the organization's ineffective marketing and promotes the company's sales. Online connections build an opportunity to communicate with the clients to enhance the necessary improvements to promote more company income (Rogers & Cliff, 2012).

  AI technology is essential in streamlining cloud applications through purchase to pay systems and activities. Organizations need to purchase and produce a wide range of products, including office equipment and enhancing supplies to the organization's client. The AI systems are useful in speeding, reliability, and efficiently enhancing the organization's processes in processing product and services payments and assuring compliance to corporate regulatory measures and policies. All organizations should follow business operation compliance; therefore, the implemented technology should follow the regulatory measures in production and generation customer satisfying product to clients to promote the organization growth and generate more positive outcomes in the organization production activities. AI helps turn internal procurement and purchasing processes into highly efficient, powered activities that can eliminate challenges. Identify opportunities to develop purchase discounts, consolidate purchases and eliminate waste, abuse, fraud, and keep the organization's purchase process in compliance with regulations and rules. As the AI systems continue to be implemented in the organizations, they provide accurate performance through the prevention of human errors by identifying messed areas that people would not realize (Yousif, 2017).

  Artificial intelligence is essential in performing various tasks that require the elements of human cognitive ability. For instance, the Robotic process automation tools effectively perform significant roles in the organization, promoting the system's ability to learn the documents in predictive decision making that enhances intelligent tools' success. AI technology also utilizes natural languages that support interactions with customers, employees, customers, partners, and suppliers to improve operations and accelerate regulation compliance. The sufficient analytical capability in AI technology systems supports the company in performing research and analyzing the organization data to learn patterns by automatically evaluating the data and generating intuitive insights (Linthicum, 2017).

The intelligent systems are also supporting the organization in employee management using back-office channels that also help monitor the employee's activities and the entire activities taking place in the organization. Implementing AI systems in cloud computing enhance employee's engagement through interaction, behavior and ensuring all the corporate rules are being followed to prevent negative consequences to the organization (Schwarzkopf et al., 2012). The AI technology systems are also useful in supporting the employee's responsibility by efficiently providing internal support to the employees through Chabot's and the other necessary internal support requirements. The need to streamline cloud applications with AI technology enables the organization to quickly respond to market changes and rapidly respond to advancing ideas from concept to real production activities. The artificially intelligent system successfully transforms data into a useful asset that supports the advancement and organizational changes (Kiruthika & Khaddaj, 2017).

Artificial Intelligence technology in cloud applications generates a transformed It infrastructure. AI in cloud applications helps shape the IT infrastructure in an organization. Organizations face high competition in different markets, thus creating advanced approaches in various organization events. Moreover, these create the need for more innovations and efforts to sustain the organization's performance in such a type of market. Therefore, this creates the need for streamlining cloud technology with AI technologies. AI technology is

developing the computing platforms to improve the computing application to support the organization in data processing and manufacturing necessary in completing the demand (Yigitbasioglu et al., 2013).

AI technology has become essential in security automation in cloud applications. Data security has remained an important activity in most organizations to enhance organizations' protection and client data against unauthorized access. Events of data breaches and fraud have continued to increase in recent decades, where numerous organizations and clients have experienced losses from cyber-attack data breaches. Therefore, the implementation of AI technology in cloud applications goals includes promoting security and protecting individual data in the organization. The utilization of AI in cloud applications is actively useful in cloud application security. The AI innovations of technology can process data in cloud applications and detect potential inconsistencies and threats. With this activity, AI can successfully promote the organization's attention on various activities to assure immediate response to prevent losses in the organization. Also, as a result, streamlining the advancements supports the organization in preventing unauthorized access to the cloud applications that consist of the organization's data. Again, AI technology can detect the strange actions and automatically block them, restricting any unrecognized codes into the cloud application systems (Yogamangal & Sriram, 2012).

Moreover, AI technology's ability to review and collect information from different locations supports the organization in developing effective security measures to respond to security incidents. On the other hand, AI can help the human security team to recognize their role as essential and successfully perform their tasks in promoting organization security. AI technology supports data backups, which allow the organization to secure their data to support the organization in need to retrieve the information (Rajnai & Kocsis, 2017).

CONCLUSION

Technology advancement and increased completion in organization operations has increased the demand on AI technology in cloud application. AI technology has brought about excellent performance in data processing activities in an organization that has generated more benefits. For instance, AI technology has improved order processing, payments, and issuing of receipts. The technology has effectively supported the organization in developing smarter decisions through accurate analysis of organization data helps the executive learn the pattern and trend in the organization's operations. The paper also includes the impacts of AI in marketing and client's behavior. AI has successfully promoted the organization's security of the data by providing adequate security measures and strategies to protect the company information. It is evident AI technology has a tremendous improvement on organization operation through cloud applications; however, more research has to be developed to enhance more success.

REFERENCES

1) Bharathi, N., & Neelamegam, P. (2012). A Reconfigurable Framework for Cloud Computing Architecture. Journal Of Artificial Intelligence, 6(1), 117-120. https://doi.org/10.3923/jai.2013.117.120

2) Elmahouti, M., Achandair, O., Khoulji, S., & Kerkeb, M. (2017). New Cloud Economy For Resolving A Problem Cloud Computing Adoption. Transactions On Machine Learning And Artificial Intelligence, 5(4). https://doi.org/10.14738/tmlai.54.3213

3) IEEE Cloud Computing Call for Papers: Intelligence in the Cloud. (2016), 3(5), 25-25. https://doi.org/10.1109/mcc.2016.116

4) Karthic, C., Sujatha, S., & Praveenkum, V. (2012). A Dynamic Cloud Discovery Framework for Deploying of ScientificComputing Services over a Multi-cloud Infrastructure. Journal Of Artificial Intelligence, 5(4), 161-169. https://doi.org/10.3923/jai.2012.161.169

5) Kumar, M. (2016). An Incorporation of Artificial Intelligence Capabilities in Cloud Computing. International Journal Of Engineering And Computer Science. https://doi.org/10.18535/ijecs/v5i11.63

6) Kiruthika, J., & Khaddaj, S. (2017). Impact and Challenges of Using of Virtual Reality & Artificial Intelligence in Businesses. 2017 16Th International Symposium On Distributed Computing And Applications To Business, Engineering And Science (DCABES). https://doi.org/10.1109/dcabes.2017.43

7) Linthicum, D. (2017). Cloud-Native Applications and Cloud Migration: The Good, the Bad, and the Points Between. IEEE Cloud Computing, 4(5), 12-14. https://doi.org/10.1109/mcc.2017.4250932

8) Memmi, D. (2014). Information technology as a social phenomenon. AI & SOCIETY, 30(2), 207-214. https://doi.org/10.1007/s00146-014-0565-4

9) Mirzayi, S., & Rafe, V. (2015). A hybrid heuristic workflow scheduling algorithm for cloud computing environments. Journal Of Experimental & Theoretical Artificial Intelligence, 27(6), 721-735. https://doi.org/10.1080/0952813x.2015.1020524

10) Rajnai, Z., & Kocsis, I. (2017). Labor market risks of industry 4.0, digitization, robots and AI. 2017 IEEE 15Th International Symposium On Intelligent Systems And Informatics (SISY). https://doi.org/10.1109/sisy.2017.8080580

11) Rogers, O., & Cliff, D. (2012). Options, forwards and provision-point contracts in improving cloud infrastructure utilisation. Journal Of Cloud Computing: Advances, Systems And Applications, 1(1), 21. https://doi.org/10.1186/2192-113x-1-21

12) Schwarzkopf, R., Schmidt, M., Strack, C., Martin, S., & Freisleben, B. (2012). Increasing virtual machine security in cloud environments. Journal Of Cloud Computing: Advances, Systems And Applications, 1(1), 12. https://doi.org/10.1186/2192-113x-1-12

13) Umamakeswa, A., Renugadevi, T., & Vijayalaks, N. (2012). Cloud-computing Framework for Network Monitoring. Journal Of Artificial Intelligence, 5(4), 233-238. https://doi.org/10.3923/jai.2012.233.238

14) Wettinger, J., Breitenbücher, U., Kopp, O., & Leymann, F. (2016). Streamlining DevOps automation for Cloud applications using TOSCA as standardized metamodel. Future Generation Computer Systems, 56, 317-332. https://doi.org/10.1016/j.future.2015.07.017

15) Wang, L., Cui, Y., Stojmenovic, I., Ma, X., & Song, J. (2013). Energy efficiency on location based applications in mobile cloud computing: a survey. Computing, 96(7), 569-585. https://doi.org/10.1007/s00607-013-0334-0

16) Yigitbasioglu, O., Mackenzie, K., & Low, R. (2013). Cloud Computing: How does it differ from IT outsourcing and what are the implications for practice and research?. The International Journal Of Digital Accounting Research, 13. https://doi.org/10.4192/1577-8517-v13_4

17) Yogamangal, R., & Sriram, V. (2012). A Review on Security Issues in Cloud Computing. Journal Of Artificial Intelligence, 6(1), 1-7. https://doi.org/10.3923/jai.2013.1.7

18) Yousif, M. (2017). Cloud-Native Applications—The Journey Continues. IEEE Cloud Computing, 4(5), 4-5. https://doi.org/10.1109/mcc.2017.4250930.