FUELING THE NEW NORMAL OF LEARNING AND DEVELOPMENT WITH ARTIFICIAL INTELLIGENCE

Dr. F. R. Alexander Pravin Durai

Head and Associate Professor, PG & Research Department of Commerce, St. Joseph's College (Autonomous), Tiruchirappalli. Affiliated to Bharathidasan University.

Julie Jose

Ph.D. Research Scholar (FT), PG & Research Department of Commerce, St. Joseph's College (Autonomous), Tiruchirappalli, affiliated to Bharathidasan University Tiruchirappalli.

Abstract

Artificial Intelligence (AI) is a broad subject under discussion today at all levels of business. The majority of business analysts and business experts claim AI to be their future. Careful analysis reveals that AI is the present and not the future. Most e-commerce platforms especially amazon utilize AI to recommend products to the customers considering the information that was collected. Siri, Google Assistant, and Alexa already use AI to enhance the experience of their users. Although technological development is in its basic stage, many organizations have already invested huge investments in AI with the assumption that AI helps in bringing the promised future. Learning and Development is one of the sectors where AI could bring transformation shortly. This article speaks about the importance of AI in learning and development. The author recommends that the Learning and Development specialists must have the awareness of the rapidly changing technological developments and make use of them to improve the learning processes. Regarding AI, the learning and development experts must implement AI improvements for developing new and trending learning strategies and techniques for effective learning. Thus, AI will have a boundless impact on the organizational learning and development sector.

Keywords: Learning and Development, Artificial Intelligence, organizations, employees

Introduction

The 21st century has brought with it a lot of incredible technologies. Some of them were even unimaginable. The foremost among all the technological advancements in Artificial Intelligence (AI). This is one of the utmost titles talked about especially in the industrial sector. AI has been beneficial and is widely used for conducting research, detecting frauds, optimizing logistics, providing translations, composing art, and so on. There is hardly an area where AI has not benefitted. It is extensively used by organizations for employee learning and development. Many business organizations have already implemented AI in their learning and development strategies. The goal of AI is to incorporate human intelligence into machines to generate smarter systems. One of the major contributions of AI is in giving computers human-like intelligence, such as the ability to learn and reason, solve problems, etc. Already AI is in work around us. Like, Netflix recommends more videos based on what has already been watched, Amazon reminds items close to our preferences, Siri, Google Assistant, and Alexa uses AI for providing enhanced user experience, and so on. Although it is still in its early stages, many organizations have increased their budgets for Machine Learning and AI. Organizational learning and development are on the verge of a complete transformation with the tremendous leap of AI.

A Brief History of AI

Like many other technological advancements, AI also has a deep-rooted history that is intertwined with cognitive science and mathematics which was applied in the military operations with pattern statistics. The birth of AI is traced back to 1956. The US Defense Department took great initiative in the research of programming computers in mimicking human beings. And this project was named Dartmouth Research Project. As a result of the long-awaited research, in 2003 the DARPA (Defense Advanced Research Projects Agency) produced the 'Intelligent Personal Assistants'. This happened long before the advent of Amazon or Apple. However, the world came to know much about AI through Stanley Kubrick's "2001: A Space Odyssey" movie which featured a sentient Artificial Intelligence Computer: HAL 9000.

Review of Literature

AI is a highly effective tool for humankind. It is imperative to understand the reasons why AI has not been much effective. First and foremost is the lack of knowledge about the significance and benefits of AI. The Blue Dot Canadian company was the first organization to predict the pandemic with AI technology (McCall, 2020). Innovation is the set of activities that lead to the introduction of something fresh and new that results in strengthening the organizational competitive advantage. AI is one of the innovations for enhancing the organizational setup (Van der Meer,2007). Large firms primarily focus on the changing business models, new generations, changing technologies, international talent mobility, gig economy, etc. The trends and technological advancements perceived positively by the organizations include work-life balance, communication, and social media, advanced technology, and artificial intelligence (Suhasini, 2014). The introduction of artificial intelligence and neural networking makes e-learning smarter and quicker and more responsive. Such learning strategies are both adaptive and prescriptive (Kelly, 2001). The use of digital technologies and online platforms like artificial intelligence systems and augmented reality enables organizations to sustain their income and enhance the employee's performance with an increase in productivity (Khlystova et.al, 2022). Ontologies were developed from artificial intelligence. Taking full advantage of ontologies provides a knowledge management environment that expands and replaces previous information and knowledge which is the need for enhanced learning and development in organizations (Strohmeir, 2009). The intelligent tools to be adopted in organizations for the betterment are simulation agents, assistance agents, and training agents. Although the corporate knowledge base can be applied in computer-based systems and accessed through automatic agents, the full enactment needs advanced technical systems of artificial intelligence (Thornton, 1990).

Role of AI in L&D

Most organizations have implemented AI for their interactions with their customers and to prompt them into action. AI is also used for analyzing transactions and detecting frauds. As organizations are investing more in AI, there are dramatic changes and expansion in the number of applications and use cases. It is up to the learning professionals and the L&D teams to embrace and update the changes as a part of the organizational learning programs. Some AI applications and tools have already sneaked into the learning technology space. But barely the surface of AI has only been scratched with these applications. The implication of AI has shown improvement in learner experiences and provides more personalized learning content. A few ways through which AI helps in transforming L&D are as follows:

Personalized Learning Involvements

Every single learner differs in the way they acquire and process the information they receive. And that is the reason behind the construction of varied learning approaches and learning theories. Unfortunately, creating learning experiences with human judgment yields reduced results when compared with AI or ML (Machine Learning). Individual learning patterns can be recognized by AI. Therefore, they can rightly predict which type of learning strategy suits the learner and the best output can be produced.

Identifying Learning Gaps

AI can combine and compute big data sources and identifies the gap in the individuals learning. AI prepares learner profiles which take days when done manually. These learner profiles will enhance the overall individual learning experience and help the employee to acquire new skills. Providing the same training to every employee will be a waste of time as some of them may have prior knowledge. AI helps in measuring the performance of the learners, and their knowledge and skills gap. Identifying the learning gaps makes it easier and cost-effective to train the employees in their areas of weakness and enhance their expertise. This will keep the employees engaged as they get around learning new skills and knowledge.

Reinforcing Learning and Development

Reinforcement is a process in which learning is valued wherein the employee makes use of what has been learned. Employees are at times too busy and lazy to work for their development. Studies prove that employees finish only 15 percent of the learning programs assigned to them. AI helps to solve the problem of poor reinforcement of L&D and improves the reinforcement programs. AI finds ways to engage learners, automate the reinforcement process through scheduling learning interventions and testing, and encourages the learners to put into practice what they have learned.

Round the clock Support

When employees learn at their own pace online, it is quite normal to have questions. With the help of chatbot-backed artificial intelligence technology, the employees can get their queries cleared with sufficient answers immediately all through their learning process. As a result, there will not be any delay in clearing the doubts and moving ahead with the learning program without waiting for the trainer to clear them all.

Instant Feedback

The AI tools created for L&D can evaluate the performance, check the answer sheets, and collect the information needed for analyzing the results immediately. Evaluation is a crucial part of the recommendation and the personalization process and works well with both historical and real-time data. The tests can be analyzed with the AI tools and the personalized evaluation will consider the employees learning capacity and skills. Thus, the weak areas can be made stronger, eliminate the drawbacks and result in accurate performance by eradicating the chances for errors.

AI-based Digital Instructors

Digital coaches based on AI have already been used in an effective manner for replacing speakers, lecturers, teachers, and coaches. AI can eliminate the requirement of an instructor to some extent. The queries of the employee during training are made clear with accurate answers with the help of AI. Organizations can utilize chatbots based on AI to answer the questions by helping the learners. The whole process will be carried out in the form of conversations like normal chatting between human beings.

Enhanced completion Rates

L&D programs are growing day by day but still, employees drag their feet when it is time for attending

them. But AI-powered L&D programs provide the most relevant content with prudently linked virtual rewards (XP and Badges) which attracts the employees and increases their level of interest in attending them. And this will creep up the completion rates. Furthermore, there will be an increase in the change in behavior and all of these will result in the ability to deliver the best business outcomes.

Evolving Critical Perceptions

AI can mine Learning Management System (LMS) data, collect feedback, evaluate employee performance and make prepare the way for a series of analytics. Organizations use the data to form perceptions in their L&D. they can find the areas of improvement, critical patterns and trends, and effectiveness of outcomes. These perceptions can help to refine the courses, learning strategy, and the contents among the employees for better results while charting out the trends.

Universality

Artificial Intelligence accustoms its recommendations to employees belonging to all backgrounds, different levels of education, and to varieties of personalities. Without effort, AI tailors its contents to different groups based on the data it contains to hand over. It can also process its contents for learners with disabilities or those persons who speak a different language. This process of automating will save the time of L&D professionals and prevent the damaging of knowledge silos for the whole organization.

Conclusion

Artificial Intelligence is one of the most proficient technologies that can revolutionize learning and development. AI is still in its early stages of implementation. For further development in this area, organizations must have the resources and a significant commitment towards it. Many organizations have already stepped into investing much in this and making the most out of AI. It is ideal for fast learning and an increased rate of completion. Not only does it improve learning, but also enhances employee engagement, efficiency, and interactivity, improves recall by employees, and reduces costs. Besides these strengths, organizations must be aware of the possibility of algorithmic bias and chances of false information and a few other points to be taken into consideration. AI is only smart with the data it is fed with. If the data is skewed then the program output or result would also be damaged. In order to counter this, machine learning systems with anti-biased features must be utilized. To get the most out of it, employees must be encouraged to contribute up-to-date, accurate and truthful information. L&D professionals must be aware of the rapidly changing technology and must use it for enhancing the learning processes. With the proper investment in AI, the entire course of L&D can be improved at a fast pace for both the employee and the employer.

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