



Applications of Artificial Intelligence in Various Traits of Life

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Knowledge Administration (KA) is the method by which an organization creates, shares, applies, and manages its information and knowledge. Although conventional KA has evolved throughout the years, documentation remains its bedrock principle. The considerable shift towards remote and hybrid working, however, has shown the limitations of conventional practices. Artificial intelligence (AI) will close these knowledge gaps and alter the ways in which KA is converted and knowledge is managed. This article reviews research on artificial intelligence (AI) and Knowledge Administration (KA), focusing on how AI can help to improve their KA strategies. In light of the existing literature critical review analyses the most up-to-date methods by analyzing both theoretical and applied works. In addition, the analytical framework presented below is useful for imagining new lines of inquiry and ways to enhance the quality of existing ones.

Keywords: AI, Knowledge sharing, Information.



Introduction

Knowledge Administration (KA) systems, which led to the proliferation of digital documents, were a game-changer in the management of data in the 20th century. The twenty-first-century economy has shifted in a way that highlights the benefits of KA. Knowledge and information are widely recognized as crucial to economic growth. Knowledge Administration is a cutting-edge strategy for storing and organizing information for easy access and further application [1]. The goal of KA is to help businesses succeed by facilitating the effective management of knowledge among a wide range of internal and external stakeholders. Successful businesses recognize the importance of knowledge and have figured out how to move from individual to corporate knowledge [2]. Knowledge Administration (KA) is an umbrella term for a collection of practices that integrate elements of IT, OB, and HRM. Knowledge Administration (KA) is essential in today's enterprises since it promotes organizational development, creativity, and success. Market research shows that knowledge-based companies fare better in the long run [3].

Since, the dawn of the twenty-first century, artificial intelligence (AI) has played a pivotal role in KA by improving data collection, analysis, and dissemination inside organizations. Numerous research has looked into the effects of KA systems, methodologies, and best practices on firms, as well as the most recent developments in these areas. The use of KA strategies has also been found to increase the use of educational technology [4]. Artificial intelligence (AI) uses a variety of techniques to mimic human cognition, such as deep learning, neural networks, and supervised machine learning. The best deep-learning algorithms typically employ a supervised learning strategy, where massive amounts of labeled data are used to train the strengths of connections between nodes in large, layered computational networks, thus enabling the use of patterns observed in the training data to make reliable predictions about data that has not yet been observed [5].

In order to get the most out of AI as we head towards a data- and insight-driven future, it is essential to investigate the link between AI and KA. It is crucial to comprehend how organizations employ knowledge before identifying the connection between KA and AI. In order to meet their many obligations, businesses must have personnel that are both skilled in doing critical tasks and highly regarded within the industry [6]. AI is one of the fundamental pillars of KA's development, improvement, evolution, and extension, yet it is often overlooked by KA practitioners and thinkers. Artificial intelligence (AI) has been around longer as a topic of study than Knowledge Administration (KA), is grounded in decades of computer research, and is used in many different contexts.

Artificial intelligence (AI) and machine learning (ML) have been shown to be invaluable business tools. This is especially true for the analysis of industrial and organizational networks. In the twenty-first century, Knowledge Administration seems to have progressed [7]. Moreover, AI and blockchain have reworked the efficient collection, creation, sharing, and application of information within businesses. Emerging AI applications handle massive amounts of data streams, hence the capacity to run centralized big-data-processing platforms is crucial. The software provides specialized patterns of knowledge for particular configurations of computers, mobile devices, and users [8]. The delivery of system- and application-wide intelligence is facilitated by centralized KA and knowledge discovery. New paths of cooperation between knowledge machines and humans are emerging, and the potential of AI to recognize situations, concepts, and meaning are highlighted [9].

This research makes an effort to bridge the gap between AI and KA literature, with a primary emphasis on determining the extent to which AI may spur improvements in efficient information and KA [10]. Understanding the nuances of this fast-evolving field of study requires that academics provide an overview of the AI-based approaches now in use. This research details the necessary conditions in order to address these pressing issues:

In light of the existing literature on AI and KA, this critical review analyses the current level of knowledge, with an emphasis on studies that discuss applications and context. In order to shed light on possible directions for future study and development, this review employs a critical analysis [11].

Many people believe that artificial intelligence will soon become the most important driver of economic growth and a catalyst for widespread institutional and structural shifts in the economy. Due to its rapid growth, artificial intelligence (AI) brings both opportunities and challenges for businesses looking to invest in the field [12]. The current trend in AI technology development is towards improving the judgment and decision-making skills of entrepreneurs, which is a powerful instrument for fostering society's growth and progress. This means that artificial intelligence is becoming increasingly relevant.

Strategy to Manage Information

KA has been an important field that explains and promotes the production, development, maintenance, and use of information within organizations, and nations, as well as fosters reflection and new ideas [13]. As was briefly said before, KA is currently one of the crucial factors in maximizing an organization's chances of success by using a competitive advantage. Interest in it has persisted for some time, and studies do suggest it's a legitimate academic field. However, its development at the organizational level can have positive effects on both workers and businesses. Knowledge Administration is crucial, but it lacks a well-developed organizational theory that can explain why it's vital or a compelling description that would pique the interest of businesses [14]. By analyzing their assets, firms can have a better understanding of their operations and how to improve information gleaned from a company's assets, such as the results of past comparisons, could prove useful in navigating the challenges posed by today's dynamic business climate. In the same way that businesses become more knowledgeable, the members of those businesses may improve their skills and the value they bring to their organizations by learning everything they can about them [15]. Despite the seeming simplicity of this interpretation, prior knowledge can be dangerous since it hinders the ability of individuals and groups to adapt to new circumstances by preventing them from learning something new or changing their behavior. Learning these new processes is essential to facilitate new ways of gathering and using existing information at the individual and organizational levels. However, this will not be possible without a shift in the company's culture and the adoption of these KA practices [16].

An organization's KA practice can be pushed to a higher level through the careful management of AI's opportunities and the assignment of supportive solutions to past actions. This means that stakeholders can take the right action or finish tasks that arise during the real phase of a KA process (KAP) more quickly, effectively, and successfully if AI-assisted solutions are provided at each level [17].

Artificial Intelligence

AI has been studied for decades, and it is now one of the most widely used terms in several industries. Virtual reality, neural networks, expert systems, voice recognition, natural

language processing, and robots are all examples of how artificial intelligence (AI) expanded into a broad subject.

Haenlein and Kaplan define artificial intelligence as the ability of a system to successfully adapt to new environments, new inputs, and new knowledge in order to complete a set of predetermined goals and activities [18]. Further, in the same publication, the researchers offered two different classification methods for AI, one based on the stages of AI development and the other on the intelligence style displayed by an AI system. An artificial intelligence system's intellect can be relational, emotional, or rational, just like humans. Based on the specific type of intelligence they display, AI systems are classified as either analytical, sentient, or humanoid. Artificial Intelligence is "a platform for infinite potential and knowledge that may be constrained by individualized approaches." The phrase was also defined as a collection of tools, methods, and practices implemented within an organization for the benefit of the business and its stakeholders [19].

AI empowers people at all levels of an organization to be more productive and innovative, while also making it easier to measure their progress. The potential to be more competitive, reduce costs, tighten security, and continuously supply data are all ways in which technology helps firms achieve their goals and increase their profitability [20]. These modifications enhance the potential methods employed throughout the KAP's phases. Adopting AI technology in KA has tremendous potential benefits if done correctly

Research Tactics

The purpose of this review is to evaluate. The recent literature that was meticulously researched for this investigation. Structured goals, the Scopus database, and information gathering and analytic methods are heavily utilized in this approach. A subset of the necessary components for critical evaluations was chosen to provide a thorough and concise evaluation of the research subjects [21]. The information offered here has been thoroughly researched to verify its reliability. However, the search parameters did not include all outstanding research articles.

Rarely does a critical review include a thorough analysis of all relevant studies. These are unable to evaluate the reliability of studies, especially qualitative studies without a clear hierarchy of design elements. Furthermore, many reviews fail to detail their research technique, how they chose which publications to include or exclude, how they conducted their searches, how successful those searches were, or how they conducted their analyses.

Results

Companies are being seen from a knowledge perspective rather than an industrial one. In today's business world, knowledge is used as a tool. This is especially true because productive businesses are those that identify, evaluate, create, and convert knowledge into assets. Companies may now take full advantage of the benefits offered by information and communications technology thanks to the addition of artificial intelligence capabilities.

Artificial intelligence (AI) techniques and systems are widely used in today's enterprises. These tools are used for mathematical logic, heuristic searches, and pattern identification. Industries that can benefit from AI innovations have shown increased interest in KA in recent years. User profiling, semantic text analysis, text mining, and pattern matching are just some of the activities that may be accomplished by organisations using intelligent agents derived from a variety of AI-related technologies, such as genetic algorithms, intelligent agents, and neural networks.

Companies can get benefit from AI technologies that aid in the development of better KA practices. Knowledge representation from an AI perspective needs training business procedures on this data. This leads to the automation of KA processes since data can be mined and inferences drawn from knowledge in a machine-interpretable format. The potential role that AI can play in KA has been investigated in depth. Increases in Business, Management, and Accounting also point to a growing interest in applying AI and KA to these disciplines.

Artificial intelligence (AI) is a potent resource for expanding understanding in any field. Because AI is always getting better with new tech, this relationship helps the KAP. Together, KA and AI cannot function without knowledge. As a result, businesses can use the efficiency that AI provides as a tool to meet their needs. To fully understand the pros and cons of KA and AI, one needs to look to scientific theory, knowledge concepts, and processes. People constantly argue over their identities, laws, and futures while utilizing AI and KA to further their own or other people's repressive or oppositional projects, thus it's important to have a firm grasp of power dynamics if you want to fully appreciate the interplay between AI and KA.

The quality of the decisions made is directly related to the quantity and quality of the data collected; therefore, artificial intelligence techniques may be of great benefit in this situation. Businesses can use them to outline the data needed to achieve strategic goals in a given economy and have that data generated for them through the knowledge creation process. It's challenging to turn massive data sets into actionable insights that can inform decision-making. Managers can make more informed strategic decisions when they have access to and analyze relevant data. Information technology-supported KA allows for the development and application of operational efficiency and inventive capacity by means of synergies and information-processing skills.

AI in Business

Collaborative intelligence is as the value created when humans and AI work together effectively to achieve organizational goals. However, there is a lack of data on the factors influencing the AI-human connection and its impact on business success [21][22]. Researcher developed and validated a novel theoretical model that addresses this information gap by investigating the connections between knowledge sharing, trust, workers' AI abilities, and task clarity. The model is based on the organizational socialization framework (OSF), the knowledge-based view (KBV), and the socio-technical systems (STS) perspective. Managers and the AI community can use these findings to build collaborative intelligence into their businesses.

In order to improve KA in businesses and to increase operational efficiency, researcher set out to identify the critical success factors (CSFs) for an artificial intelligence-integrated customer relationship management system [23]. The proposed interpretive structural model provides a comprehensive and effective road map for improving performance in KA settings that make use of AI-customer-relationship management. The results show that with the right leadership behind it, AI-integrated customer relationship management systems that may boost KA and, in turn, the efficiency of a business's operations. A researcher examined the development of a knowledge-based system, via the application of rules, might potentially improve the business's sales and department's decision-making processes [24]. Knowledge-based systems allow for modeling of potential future business scenarios and may improve the reliability and adaptability of the decision-making process. If a poor selection is made, it will

negatively impact the company's plan's implementation, thus it's important to look at all of the study's components together to get to a reliable result.

Based on these findings, manufacturing companies that are serious about optimizing their performance and resilience through the use of AI should give KAPs serious consideration as a mediating mechanism. The research shows how AI can be used to enhance KA-based administrative decision-support systems [25]. The private university administration is used as a dependent variable in the study. Technology advancements have enhanced the majority of organizational and administrative delivery techniques. All industrial cycles and administrative business procedures must be digitized by companies in this sector; the same is becoming true of essential services provided by educational institutions.

AI in Construction Industry

Organizations and businesses in the construction industry need to develop innovative and problem-solving processes to aid in the spread of information about digitalization in the industry [26]. The goal of study is to showcase a creative assistance system that can process this much data and provide useful insights to speed up the process of creating innovative new items. The validation process verifies the strategy's viability and offers tips for how to make it even better in the future.

The spread of information and the efficiency of existing networks can both benefit from the endogenous impacts of AI. With its unambiguous automatic-recognition function in fresh knowledge, Artificial Intelligence technology encouraged the primary internal transmission capacity of innovation in knowledge, which in turn contributed to the development of novel technical advancements. In addition, AI stoked the fire of creative thinking, which resulted in novel technological advances that pushed the state of the art forward. Knowledge networks influenced the effectiveness and longevity of deep-runoff knowledge transfer. The opportunities for cooperation and the use of integrated knowledge in the intelligence sector were affected by the level of AI adoption [27]. Aims to analyze how AI's disruptive technology affects the dynamic between traditional KA practices like customized codification (explicit knowledge) and tacit knowledge, and between these and organizational improvisation (the ability of a company to quickly come up with new ideas in response to shifts in the technological landscape). While both codification and personalization can improve improvisation, the former tends to do so more so than the latter. However, when technological upheaval caused by AI occurs, the connection between customization and improvisation weakens, while the connection between codification and improvisation strengthens [28].

AI in Health Sector

Knowledge Administration is crucial in healthcare because it encourages better collaboration between professionals and leads to better patient outcomes. AI has the potential to automate some tasks in the healthcare industry, which would ease the burden on human workers and, in the long run, save money. AI in healthcare KA system to facilitate the systematic creation of knowledge on a wide range of hospital data [29]. The findings demonstrate that the system safeguards the development of new knowledge, paving the way for its use and study in the service of better healthcare decision-making. Using medical records from hospitals, the knowledge system was utilized to detect and classify instances of brain bleeding in text and high blood pressure in CT/MRI images. It could help medical professionals to make accurate diagnoses and provide efficient treatment options. In order to

make better, more timely decisions, performance dashboards aggregate data from multiple sources and display it visually [30]. A researcher presented a case study and described the various sources of epidemiological data in their dashboard project. The authors' examples demonstrate how the implementation of such systems in e-health has grown rapidly in recent years. A researcher investigated the effects of applying an AI-driven public healthcare framework to improve decision-making about the impact of G2G interactions in light of the COVID-19 pandemic, which revealed weaknesses in healthcare systems [31][32]. As a result of the external AI-based COVID-19 problem representations, this representation is inextricably linked to the solver's current understanding of the issue's substance.

KAP is critical to a company's success since it generates a sustainable competitive advantage, as discussed in the literature. It is highly advantageous to combine KA with AI-powered machine learning and natural language algorithms [33]. This could improve internal operations and reduce costs. The public sector is encouraged to adopt this technology in order to speed up the process of allocating and documenting data pertaining to customer service. The building industry has been impacted by each of the four industrial revolutions, and the digital era is the fourth [34]. Building information modeling, virtual reality, unmanned aerial vehicles, and artificial intelligence are all used and incorporated into the daily tasks of the sector to make things run smoother and faster. Knowledge Administration emerged in the early to mid-1990s as an internal business strategy for boosting output and quality. The decades of research into KA have revealed that the fields of AI and KA mutually bolster one another in terms of developing more effective practices for advancing KA [35].

Companies that employ Knowledge Administration as a strategic tool have a leg up on the competition and can outperform those that don't. implement properly. KA has the potential to raise revenues, decrease resource exploitation, increase savings, and improve user approval. Businesses benefit from Knowledge Administration because it fosters an environment where employees are motivated to further their education, gain new skills, and take on leadership roles, all of which are rewarded. Organizations can increase their competitiveness by adapting their overall strategies to better fit the requirements of their domestic markets. By allowing users to distinguish between various institutions, entity demands, and consumer preferences, KA in a strategic configuration improves the understanding of local surroundings. The world's economy is evolving at a rate never seen before in human history. Companies, whether they operate locally or internationally, need employees who have been trained to spot crucial information and skills in the midst of constant change. As a result, organizations can potentially boost output through the strategic application of KA.

One of the most pressing problems in the artificial intelligence industry is the scarcity of legally permissible data. Decentralized, publicly available database systems on the internet provide a potential solution to this issue. Businesses and AI researchers can now profit from blockchain data thanks to analysis and processing that produced invaluable new understanding. There are numerous real-world applications for this knowledge, such as the development of new or improved business models in areas like electric vehicle infrastructure, intelligent autonomous supply chain management, smart home automation, smart city planning, distributed financial services, and commodity trading.

The digitization of the construction industry has led to the introduction of AI tools, despite the lack of acceptance of AI and effective KA technologies. This shows that AI will

soon be used to support KA across industries, but there are further uses for AI in context of KA that may have far-reaching effects and be of tremendous assistance to businesses of all sizes. Recent studies show that the vast majority of money spent on AI produces little results. Decades of research have shown that successful IT adoption requires simultaneous organizational change. Organizational aids are what are known as.

Conclusions

Information and knowledge inside an organization are managed through the process of creating, utilizing, exchanging, and storing that information and knowledge. Although traditional KA has developed throughout the years, documentation has always been its foundation. However, the significant move towards remote and hybrid labor has exposed flaws in the status quo. Artificial intelligence will fill these gaps and change the way KA is transformed and managed. Although few businesses have embraced AI due to the initial investment necessary, corporations hesitate due to a lack of knowledge about the full benefits of AI and how it may increase KA inside teams. The use of artificial intelligence (AI) to boost Knowledge Administration (KA) across industries has to be studied in order to compare business processes with and without AI for KA. This article reviews the literature on AI and KA from 2012 to 2022, focusing on how AI can aid organizations in their pursuit of effective Knowledge Administration.

Soon, AI will be employed as a tool to facilitate KA in a variety of settings. Future research into these areas is needed to enhance their applications and effectiveness. Blockchain technology has the potential to improve KA by addressing the aforementioned issues. The issue of knowledge storage may be resolved, and the quality of information sharing may be enhanced when the knowledge capacity of organizations increases. Additional investigation into this possibility may prove fruitful.

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