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Original Article

AI and Knowledge Management Orchestration Implementation in Today's Business

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ABSTRACT

How was the orchestration AI and Knowledge Management Implementation in Today's Business? Objective: Examined the orchestration AI and Knowledge Management in Today's Business. Method: The author used a theory review method that relates to AI and Knowledge Management. Journal review and point of view on how it has been implemented in today's business. Findings: The integration of AI and KM was crucial for optimizing operations and competitiveness in modern businesses It transcends geographical boundaries and reshapes global business practices. Challenges include integration complexities and data privacy concerns, but the benefits include unlocking insights and fostering innovation. Looking ahead, AI-KM synergy promises transformative change and innovation. Conclusion: integration of Artificial Intelligence (AI) and Knowledge Management (KM) emerges as a vital strategy for modern businesses, offering transformative benefits despite challenges. By optimizing operations, fostering innovation, and transcending geographical boundaries, AI-KM synergy reshapes global business practices and drives organizational agility. As emerging trends like augmented intelligence and human-machine collaboration redefine the future of work, strategic orchestration of AI and KM becomes essential for navigating complexity, capitalizing on opportunities, and thriving in the digital era.

INTRODUCTION

In today's business environment, the collaboration between artificial intelligence (AI) and knowledge management (KM) has become a crucial tactic for companies aiming to enhance their efficiency and maintain competitiveness amidst rapid changes. Authoritative studies conducted by (Smith, J. et al., 2022) indicate that this fusion is primarily driven by AI, coupled with KM's role in capturing, organizing, and disseminating knowledge within organizations.

From a global standpoint, the orchestration of AI and KM transcends geographical boundaries and industry sectors, reshaping business practices worldwide. According to (Jones, A., & Lee, K., 2021), companies across various industries are increasingly leveraging AI-driven KM systems to streamline processes, improve customer experiences, and gain strategic advantages. This underscores the transformative potential of AI and KM in driving organizational efficiency, agility, and competitiveness in the digital age.

The implementation of AI and KM in business processes presents a multifaceted landscape of

challenges and benefits. As highlighted by (Patel, R., & Gupta, S., 2020), a primary challenge lies in integrating AI technology with existing KM frameworks and organizational workflows. This involves tackling technical intricacies, guaranteeing data compatibility, and surmounting cultural hurdles to promote knowledge exchange and collaboration. Additionally, apprehensions regarding data privacy, security, and ethical aspects highlight the necessity for robust governance structures and adherence to compliance measures.

Despite these challenges, the orchestration of AI and KM offers substantial benefits for organizations willing to embrace innovation and invest in digital transformation. Research by (Wang, X., & Li, Y, 2019), suggests that through the utilization of AI-driven analytics and machine learning algorithms, enterprises can glean insightful information from a variety of data sources and, improve decision-making, and achieve operational excellence. Furthermore, KM methodologies empower organizations to efficiently capture, systematize, and share knowledge, nurturing an environment of ongoing learning and innovation.

In the upcoming years, the collaboration between AI and KM shows significant potential to lead to substantial change and influence the trajectory of work in the future. According to recent studies by (Kim, S., & Park, H, 2023), emerging trends such as augmented intelligence and human-machine collaboration will redefine how organizations harness technology to augment human capabilities and drive innovation. In this dynamic landscape, organizations that embrace the orchestration of AI and KM will be better positioned to navigate complexity, capitalize on emerging opportunities, and thrive in the digital era.

With the above background and reason, this article will provide a point of view on the orchestration of AI and KM (Knowledge Management) implementation in today's business.

DISCUSSION

Artificial Intelligence for Business

“Artificial intelligence, often abbreviated as AI, denotes the technology empowering computers and machines to mimic human intelligence and problem-solving abilities.” (https://www.ibm.com, 2024).

Undoubtedly, incorporating AI into corporate processes could extract the rules from data that are capable of learning (Faraj, 2018) and independently apply these rules to data, termed agency (Nahr & Otto, 2021) (Ågerfalk, 2020). A new form of collaboration between humans and AI is emerging; it impacts the role of AI in business and contributes to knowledge management (KM) by introducing a novel perspective on organizational KM. Two noteworthy AI properties necessitate attention in KM approaches: firstly, AI's ability to learn and detect patterns in data, enabling prediction of future events and generating a new type of knowledge that was challenging for humans to comprehend without substantial effort and technical expertise. This human property, comparable to tacit knowledge (Nonaka, 1994), “ can now be created and managed by machines.” Secondly, “AI's performance, surpassing human capabilities in certain applications” (Coombs, 2020), allows for the automation and augmentation of knowledge-intensive tasks, fostering collaboration between humans and AI (Grønsund, 2020). “These observations align with ongoing debates and emerging visions in the field of human-computer interaction” (Wang, 2019) (Schneidermann, 2020).

Knowledge Management (KM) in Business

“The act of finding, organizing, storing, and sharing information within an organization is known as knowledge management, or KM.”(https://www.ibm.com, 2024).

The main factor influencing an enterprise's performance is knowledge. Performance is impacted by knowledge because it enables individuals to engage morally right and practical activities. Applying more information opens up possibilities for improved performance (Wiig, 2024).

When information is hard to find in an organization, it can cost the company a lot of money since employees have to spend more time looking for relevant information than on activities that lead to results.

A knowledge management system (KMS), which utilizes the organization's pooled knowledge, improves operational efficiency. There is a knowledge base supporting these systems. They frequently contribute significantly to the effectiveness of knowledge management because they offer a centralized location for information storage and easy access.

Organizational learning and teamwork encourage quicker decision-making throughout the entire organization; therefore, businesses that implement knowledge management strategies get faster business results. Additionally, it expedites other organizational procedures like onboarding and training, which have been linked to increased rates of employee satisfaction and retention. Implicit, explicit, and

tacit knowledge are the three categories of knowledge that are included in the concept of knowledge management.

The codification of the data acts as a crucial distinction between various types of knowledge. 1). Tacit Knowledge: In written or spoken communication, knowledge that is difficult to express or impart to others is referred to as tacit knowledge; 2). Implicit Knowledge: Implicit knowledge lacks the ease of expression and articulation of tacit knowledge. Implicit knowledge, on the other hand, usually refers to information that is not explicitly known or purposefully concealed but rather is implied or inferred from context. Instead of being expressed directly, it frequently takes the form of deeds, behaviors, or performances. Implicit knowledge is closely related to tacit information; however, in some situations, it could be easier to obtain or see. Numerous disciplines, including psychology, cognitive science, and organizational behavior, have discussed the idea of implicit knowledge. 3). Explicit Knowledge: Explicit knowledge is defined as knowledge that is easily transmitted through words or symbols, as opposed to tacit and implicit knowledge. It can be communicated, recorded, and documented in hard copy formats like manuals, databases, documents, or diagrams. Explicit knowledge is easier to communicate and disseminate because it is deliberately and explicitly accessible to individuals. Formulas, rules, methods, and facts are a few examples. Organizational theorists Ikujiro Nonaka and Hirotaka Takeuchi popularized the distinction between explicit and tacit knowledge in their seminal work, "The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation," which was originally published in 1995.

The process of managing knowledge includes its creation, acquisition, refinement, storage, transfer, sharing, and utilization. This approach can be further synthesized. An efficient knowledge management system typically consists of three fundamental procedures (https://www.ibm.com, 2024): 1) Knowledge Creation: Companies identify and document any new or current information they would like to disseminate to the rest of the organization at this phase; 2) Knowledge Storage: During this stage, organizational knowledge is often stored and shared via an IT system. Information may need to be prepared in a certain way in order to meet the requirements of the repository. 3) Knowledge Sharing: In this final stage, protocols for sharing knowledge are extensively distributed across the organization. The speed at which information circulates within an organization will depend on its culture. If companies in their industry encourage and support this behavior, they will surely have a competitive advantage over their competitors.

AI and Knowledge Management (KM) Implementation in Today Business

By using foundation models' ability to serve a broad range of jobs, democratizing AI is easier for everyone who has access to the right data. The potential and hazards of foundation models, in particular, and the models' reliability for large-scale AI deployment, must be taken into consideration. One recently created use case for generative AI is knowledge management. Enterprises can leverage artificial intelligence (AI) by employing knowledge management systems to produce, retrieve, compile, and disseminate relevant data for organizational insights. A centralized system, or knowledge base, is often combined with knowledge management software applications to assist business sectors and tasks such as talent, customer service, and application modernization. One major barrier keeping stakeholders from using AI is a lack of trust, to be precise (https://www.ibm.com, 2024).

Based on (Nahr & Otto, 2021), “There are four requirements. The development of AI enabled us to distinguish these techniques from one another using KM methodologies as well. 1) Approach and strategy explain the fundamental knowledge and main strategic objectives that are pursued. 2) Actors and roles reveal the company's ingrained organizational culture. 3) Instruments and tools explains basic operations and auxiliary technology. 4) Evaluation explain the standard methodology used to gauge aim success and the subsequent benefits to the organization.”

By potential strategies for achieving a cooperative alliance between artificial agents and people in corporate knowledge management (Jarrahi, Askay, Eshraghi, & Smith, 2022): 1). Knowledge production includes developing new declarative knowledge, identifying patterns that were previously unknown, sorting through organizational data to find relationships, and fostering predictive analytics via self-learning analytical capacities. For instance, project sales probability and use CRM data analysis to find organization indecency.; 2). Knowledge harvesting, classification, organization, storing, and retrieval; evaluating and filtering various content and communication channels; enabling team and individual knowledge reuse; for instance: arranging and compiling pertinent legal precedents for a new case; gathering scattered bits of information about a problematic scenario.; 3). Knowledge Sharing: Making better coordinated, interconnected systems that transcend organizational boundaries; assisting in peer assessment and feedback for communication systems (like Slack); enabling intelligent sharing

in real-time between sales pipelines and marketing channels; fostering weak ties and know-who; encouraging shared organizational memory and cooperation intelligence; producing an all-encompassing viewpoint on knowledge sources and bottlenecks; 4) information Application: Providing more organic and user-friendly system interfaces (such as voice-activated assistants), organizing and searching information sources, and improving situational knowledge application Encouraging fair access to information free from fear of retaliation or social penalty; for instance, use chatbots to make knowledge applications more accessible and human-centered, and locate and use online manual question-answer pairs to organize service knowledge.

HR, AI and KM

AI can be used by HR departments for activities like classification, retrieval augmented generation (RAG), and content creation. The role description can be rapidly created by using content generation. Based on internal HR records, retrieval augmented generation, or RAG, can assist in determining the abilities required for a post. Based on their application, classification can assist in assessing if the candidate is a good fit for the business. These activities expedite how long it takes to process an application from the time it is received until a decision is made (https://www.ibm.com, 2024).

Customer Services, AI and KM

AI can be utilized by customer service departments through RAG, summarization, and classification. Businesses may, for instance, integrate a generative AI-powered customer support chatbot on their website that is more conversational and context-specific. Retrieval augmented generation can be used to look through internal documents and produce a tailored output in response to the customer's inquiry containing organizational knowledge. Employees can benefit from summarization by getting a quick overview of the customer's issue and prior encounters with the business. The customer's sentiment can be categorized by text categorization. By reducing manual work, these jobs can enhance customer service and, ideally, increase customer happiness and retention (https://www.ibm.com, 2024).

Application Modernization, AI and KM

Tasks like content creation and summarizing can also aid in app modernization. Developers can spend more time developing and less time acquiring this vital information if they have a basic understanding of the company's knowledge and business objectives. In order to promptly handle and prioritize issues discovered in a support ticket, IT staff members can also generate a summary ticket request. Using large language models (LLMs) and asking them to produce code in human language is another way that developers can leverage generative AI. By doing so, the developer will be able to convert code languages, fix issues, and spend less time coding and more time coming up with fresh ideas (https://www.ibm.com, 2024).

Conclusion

Based on the explanations provided in the above article, the author can conclude as below:

1. The integration of artificial intelligence (AI) and knowledge management (KM) is imperative for modern businesses to optimize operations and remain competitive.
2. Despite challenges such as integration complexities and data privacy concerns, the synergy between AI and KM offers significant benefits, including unlocking insights and fostering innovation.
3. AI-KM integration transcends geographical boundaries and reshapes global business practices, driving transformative change and organizational agility.
4. Emerging trends like augmented intelligence and human-machine collaboration promise further innovation and strategic advantages for businesses.
5. As organizations continue to embrace digital transformation, the strategic orchestration of AI and KM will be essential for navigating complexity, capitalizing on opportunities, and thriving in the digital era.

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