

ai in knowledge management

AI in Knowledge Management: Revolutionizing Access and Insight

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1. Introduction: The Evolving Landscape of Knowledge Management

Knowledge management (KM) has evolved significantly since its inception. Initially focusing on manual processes like document sharing and expert interviews, KM now leverages technology to improve efficiency and effectiveness. The integration of Artificial Intelligence (AI) in knowledge management marks a pivotal shift, transforming how organizations create, store, access, and utilize their intellectual capital. This article delves into the historical context of AI in knowledge management, exploring its current applications and future potential.

2. Historical Context: From Expert Systems to Advanced Analytics

The early applications of AI in KM date back to the 1980s with the emergence of expert systems. These systems aimed to codify the knowledge of human experts into rule-based programs to automate decision-making. While limited by their rigid structure and reliance on explicit knowledge, expert systems laid the groundwork for future advancements.

The advent of the internet and the proliferation of digital data created new opportunities for AI in knowledge management. The increasing availability of computational power and sophisticated algorithms fueled the development of machine learning (ML) and deep learning (DL) techniques, enabling more nuanced and adaptive knowledge management systems. These advancements allow for automatic content tagging, intelligent search functionalities, and personalized knowledge recommendations.

3. Current Relevance: AI-Powered Knowledge Management in Action

Today, AI is transforming multiple aspects of knowledge management:

3.1 Knowledge Discovery and Retrieval: AI algorithms, particularly natural language processing (NLP) and machine learning, are revolutionizing how organizations discover and retrieve relevant knowledge. These algorithms can analyze unstructured data (emails, documents, chat logs) to identify key insights, relationships, and patterns. Intelligent search engines, powered by AI, can understand the user's intent and deliver more accurate and context-relevant results.

3.2 Knowledge Organization and Representation: AI is instrumental in building intelligent knowledge graphs, which represent knowledge in a structured, interconnected way. These graphs enable more sophisticated knowledge retrieval and facilitate the discovery of hidden relationships between different pieces of information.

3.3 Knowledge Automation: AI-powered automation tools streamline various KM processes, such as content creation, categorization, and knowledge sharing. AI chatbots can answer employee queries, while automated workflows can expedite the process of onboarding new employees and disseminating critical information.

3.4 Personalized Knowledge Recommendations: AI algorithms can analyze user preferences and behavior to provide personalized recommendations for relevant knowledge resources. This personalized approach ensures that employees receive the most relevant information at the right time, improving efficiency and decision-making.

3.5 Predictive Analytics in KM: AI can analyze historical data to predict future knowledge needs and identify potential knowledge gaps within an organization. This predictive capability allows for proactive knowledge management, ensuring that organizations have the right knowledge at the right time to meet their strategic objectives.

4. Challenges and Considerations

Despite its significant benefits, the adoption of AI in knowledge management presents several challenges:

Data quality and bias: The effectiveness of AI algorithms depends heavily on the quality and completeness of the data. Biased data can lead to inaccurate or unfair outcomes.

Data security and privacy: Handling sensitive organizational knowledge requires robust security measures to protect against unauthorized access and data breaches.

Integration with existing systems: Integrating AI-powered KM tools with existing legacy systems can be complex and require significant investment.

Change management: Successfully implementing AI in KM necessitates a cultural shift within the organization, requiring employees to adapt to new ways of working.

Ethical considerations: The use of AI in KM raises ethical considerations related to transparency, accountability, and potential biases.

5. Future Trends in AI-Driven Knowledge Management

The future of AI in knowledge management looks promising. We can expect advancements in:

Explainable AI (XAI): Making AI decision-making processes more transparent and understandable.

Federated learning: Enabling organizations to collaborate on knowledge management initiatives without sharing sensitive data.

Hyperautomation: Automating even more complex knowledge management tasks.

Enhanced human-AI collaboration: Creating more seamless interactions between humans and AI systems in the knowledge management process.

6. Conclusion

AI is revolutionizing knowledge management, enabling organizations to unlock the full potential of their intellectual capital. By addressing the challenges and embracing the opportunities, organizations can leverage AI to create more efficient, effective, and insightful knowledge management systems. The integration of AI in knowledge management is not merely a technological upgrade; it's a fundamental shift towards a more data-driven and intelligent approach to managing organizational knowledge. The future of work relies heavily on harnessing the power of AI to effectively manage and utilize knowledge, leading to significant competitive advantages and improved organizational performance.

FAQs

1. What are the key benefits of using AI in knowledge management? AI improves knowledge discovery, retrieval, organization, automation, personalization, and predictive capabilities, leading to enhanced efficiency, better decision-making, and improved employee productivity.

1. What are the different types of AI used in knowledge management? NLP, machine learning, deep learning, and knowledge graph technologies are commonly used.

1. How can organizations overcome the challenges of implementing AI in knowledge management? Through careful data preparation, robust security measures, phased implementation, and comprehensive employee training.

1. What is the role of human expertise in AI-driven knowledge management? Human expertise remains crucial for oversight, validation, ethical considerations, and complex problem-solving that AI may not fully handle.

1. What are the ethical implications of using AI in knowledge management? Concerns include data bias, privacy, transparency, and potential job displacement; careful consideration and mitigation strategies are necessary.

1. How can organizations measure the ROI of AI in knowledge management? By tracking key metrics like knowledge retrieval time, employee satisfaction, decision-making speed, and the reduction in knowledge silos.

1. What are some examples of AI-powered knowledge management tools? Many vendors offer solutions, including those specializing in intelligent search, knowledge graphs, and chatbot integrations.

1. What are the future trends in AI and knowledge management? Expect advancements in explainable AI (XAI), federated learning, hyperautomation, and enhanced human-AI collaboration.

1. How can small and medium-sized enterprises (SMEs) benefit from AI in knowledge management? SMEs can leverage cloud-based AI solutions and focus on specific areas where AI can provide the greatest value, such as improving customer service or streamlining internal processes.

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ai in knowledge management: AI-empowered Knowledge Management Soumi Majumder, Nilanjan Dey, 2022-02-23 This book is focused on AI-empowered knowledge management to improve processes, implementation of technology for providing easy access to knowledge and the impact of knowledge management to promote the platform for generation of new knowledge through continuous learning. The book discusses process of knowledge management which includes entirety of the creation, distribution, and maintenance of knowledge to achieve organizational objectives. It also covers knowledge management tools which enable and enhance knowledge creation, codification, and transfer within business firms thereby reducing the burden of work and allowing application of resources and effective usage towards practical tasks. An immense growth of artificial intelligence in business organizations has occurred and AI-empowered knowledge management practice is leading towards growth and development of the organization.

ai in knowledge management: Artificial Intelligence for Knowledge Management Eunika Mercier-Laurent, M. Özgür Kayalica, Mieczyslaw Lech Owoc, 2021-07-03 This book features a selection of extended papers presented at the 8th IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2021, held in Yokohama, Japan, in January 2021, in the framework of the International Joint Conference on Artificial Intelligence, IJCAI 2020.* The 14 revised and extended papers presented together with an invited talk were carefully reviewed and selected for inclusion in this volume. They present new research and innovative aspects in the field of knowledge management and discuss methodological, technical and organizational aspects of artificial intelligence used for knowledge management. *The workshop was held virtually.

ai in knowledge management: Artificial Intelligence and Knowledge Management Akira Hanako, 2016-05-24 Artificial intelligence and knowledge management have transformed the process of knowledge circulation and database management in different business enterprises and corporate organizations. Some of the significant topics discussed in the chapters of this book are AI planning strategies and tools, AI tools for information processing, data mining, knowledge-based systems, etc. It explores the innovative concepts and advancements in these emerging fields. The book is an invaluable source of knowledge for students and researchers involved in this field at

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ai in knowledge management: Knowledge Management for Leadership and Communication Jon-Arild Johannessen, 2020-03-11 With the establishment of the innovation economy, the Fourth Industrial Revolution is becoming a reality. As this occurs, new forms of leadership arise, generated by the interaction between leadership functions and neurology. This innovative book asks the question: what are the key value creation processes in the innovation economy?

ai in knowledge management: Artificial Intelligence for Knowledge Management Eunika Mercier-Laurent, Danielle Boulanger, 2019-09-11 This book features a selection of extended papers presented at the 5th IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2017, held in Melbourne, VIC, Australia, in August 2017, in the framework of the International Joint Conference on Artificial Intelligence, IJCAI 2017. The 11 revised and extended papers were carefully reviewed and selected for inclusion in this volume. They present new research and innovative aspects in the field of knowledge management such as machine learning, knowledge models, KM and Web, knowledge capturing and learning, and KM and AI intersections.

ai in knowledge management: Artificial Intelligence for Knowledge Management Mieczysław Lech Owoc, Maciej Pondel, 2021-08-05 This book features a selection of extended papers presented at the 7th IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2019, held in Macao, China, in August 2019, in the framework of the International Joint Conference on Artificial Intelligence, IJCAI 2019. The 8 revised and extended papers were carefully reviewed and selected for inclusion in this volume. They present new research and innovative aspects in the field of knowledge management such as machine learning, knowledge models, KM and Web, knowledge capturing and learning, and KM and AI intersections.

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ai in knowledge management: Secure Knowledge Management In The Artificial Intelligence Era Ram Krishnan, H. Raghav Rao, Sanjay K. Sahay, Sagar Samtani, Ziming Zhao, 2022-02-22 This book constitutes the refereed proceedings of the 9th International Conference On Secure Knowledge Management In Artificial Intelligence Era, SKM 2021, held in San Antonio, TX, USA, in 2021. Due to the COVID-19 pandemic the conference was held online. The 11 papers presented were carefully reviewed and selected from 30 submissions. They were organized according to the following topical sections: intrusion and malware detection; secure knowledge management; deep learning for security; web and social network.

ai in knowledge management: Understanding, Implementing, and Evaluating Knowledge Management in Business Settings Merlo, Tereza Raquel, 2022-06-24 Although there are numerous publications in the field of knowledge management (KM), there are still gaps in the literature regarding the aspects of KM that reflect new technology adoption and a deeper analysis discussing the interlinked process between KM and data analytics in business process improvement. It is essential for business leaders to understand the role and responsibilities of leaders for the adoption and consolidation of a KM system that is effective and profitable. *Understanding, Implementing, and Evaluating Knowledge Management in Business Settings* provides a comprehensive approach to KM concepts and practices in corporations and business organizations. Covering topics such as information overload, knowledge sharing adoption, and collective wisdom, this premier reference source is a comprehensive and essential resource for business executives, managers, IT specialists and consultants, libraries, students, entrepreneurs, researchers, and academicians.

ai in knowledge management: *Artificial Intelligence for Knowledge Management* Eunika Mercier-Laurent, 2020-07-15 This book features a selection of extended papers presented at the 6th IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2018, held in Stockholm, Sweden, in July 2018, in the framework of the International Joint Conference on Artificial Intelligence, IJCAI 2018. The 11 revised and extended papers were carefully reviewed and selected for inclusion in this volume. They present new research and innovative aspects in the field of knowledge management such as machine learning, knowledge models, KM and Web, knowledge capturing and learning, and KM and AI intersections.

ai in knowledge management: *Artificial Intelligence for Knowledge Management* Eunika Mercier-Laurent, Danielle Boulanger, 2019 This book features a selection of extended papers presented at the 5th IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2017, held in Melbourne, VIC, Australia, in August 2017, in the framework of the International Joint Conference on Artificial Intelligence, IJCAI 2017. The 11 revised and extended papers were carefully reviewed and selected for inclusion in this volume. They present new research and innovative aspects in the field of knowledge management such as machine learning, knowledge models, KM and Web, knowledge capturing and learning, and KM and AI intersections.

ai in knowledge management: *Knowledge Management, Innovation, and Entrepreneurship in a Changing World* Jennex, Murray Eugene, 2020-03-27 In today's world of business, gaining an advantage of competitors is a focal point for organizations and a driving force in the economy. New

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ai in knowledge management: Using AI for Knowledge Management and Business Process Reengineering Rose Gamble, 1998

ai in knowledge management: Knowledge Management in Practice Anthony J. Rhem, 2016-08-19 This evidence-based book provides the framework and guidelines that professionals need for working with the contemporary explosion of data that is creating opportunities and challenges to all phases of our society and commerce. -Larry R. Medsker, Research Professor in Physics and Data Science, The George Washington University Knowledge Management in Practice is a resource on how knowledge management (KM) is implemented. It provides specific KM methods, tips, techniques, and best practices to gain competitive advantage and the most from investing in KM. It examines how KM is leveraged by first responders, the military, healthcare providers, insurance and financial services companies, legal firms, human resources departments, merger and acquisition (M&A) firms, and research institutions. Essential KM concepts are explored not only from a foundational perspective but also from a practical application. These concepts include capturing and codifying tacit and explicit knowledge, KM methods, information architecture, search, KM and social media, KM and Big Data, and the adoption of KM. Readers can visit the book's companion website, KM Mentor (www.KMMentor.com), where they can access: Presentations by industry leaders on a variety of topics KM templates and instruction on executing KM strategy, performing knowledge transfer, and KM assessments and audits KM program and project implementation guidance Insights and reviews on KM tools Guidance on implementing and executing various KM Methods Specialized KM publications A private secure collaboration community for members to discuss ideas and get expert answers and advice

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ai in knowledge management: UML for Developing Knowledge Management Systems Anthony J. Rhem, 2005-11-21 UML for Developing Knowledge Management Systems provides knowledge engineers the framework in which to identify types of knowledge and where this knowledge exists in an organization. It also shows ways in which to use a standard recognized notation to capture, or model, knowledge to be used in a knowledge management system (KMS). This volume

ai in knowledge management: Knowledge Management and AI in Society 5.0 Manlio Del Giudice, Veronica Scuotto, Armando Papa, 2023 Society 5.0 points toward a human-centred approach by the use of modern, advanced technologies and artificial intelligence. This book explores and offers an overview of knowledge management embraced in the current scenario of Society 5.0,

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ai in knowledge management: Knowledge Management Herwig Rollett, 2012-12-06 A compact guide to knowledge management, this book makes the subject accessible without oversimplifying it. Organizational issues like strategy and culture are discussed in the context of typical knowledge management processes. The focus is always on pointing out all the issues that need to be taken into account in order to make knowledge management a success. The book then goes on to explore the role of information technology as an enabler of knowledge management relating various technologies to the knowledge management processes, showing the reader what can, and what cannot, be achieved through technology. Throughout the book, references to lessons learned from past projects underline the arguments. Managers will find this book a valuable guide for implementing their own initiatives, while researchers and system designers will find plenty of ideas for future work.

ai in knowledge management: Artificial Intelligence in Society OECD, 2019-06-11 The artificial intelligence (AI) landscape has evolved significantly from 1950 when Alan Turing first posed the question of whether machines can think. Today, AI is transforming societies and economies. It promises to generate productivity gains, improve well-being and help address global challenges, such as climate change, resource scarcity and health crises.

ai in knowledge management: The AI Advantage Thomas H. Davenport, 2019-08-06 Cutting through the hype, a practical guide to using artificial intelligence for business benefits and competitive advantage. In *The AI Advantage*, Thomas Davenport offers a guide to using artificial intelligence in business. He describes what technologies are available and how companies can use them for business benefits and competitive advantage. He cuts through the hype of the AI craze—remember when it seemed plausible that IBM's Watson could cure cancer?—to explain how businesses can put artificial intelligence to work now, in the real world. His key recommendation: don't go for the “moonshot” (curing cancer, or synthesizing all investment knowledge); look for the “low-hanging fruit” to make your company more efficient. Davenport explains that the business value AI offers is solid rather than sexy or splashy. AI will improve products and processes and make decisions better informed—important but largely invisible tasks. AI technologies won't replace human workers but augment their capabilities, with smart machines to work alongside smart people. AI can automate structured and repetitive work; provide extensive analysis of data through machine learning (“analytics on steroids”), and engage with customers and employees via chatbots and intelligent agents. Companies should experiment with these technologies and develop their own expertise. Davenport describes the major AI technologies and explains how they are being used, reports on the AI work done by large commercial enterprises like Amazon and Google, and outlines strategies and steps to becoming a cognitive corporation. This book provides an invaluable guide to the real-world future of business AI. A book in the *Management on the Cutting Edge* series, published in cooperation with MIT Sloan Management Review.

ai in knowledge management: AI-Empowered Knowledge Management in Education Sayan Chakraborty, Bitan Misra, Nilanjan Dey, 2024-06-22 This book explains basic ideas behind several methods used in artificial intelligence-based knowledge management techniques. It also

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ai in knowledge management: Artificial Intelligence in Management Andrzej Wodecki, 2020-11-27 Autonomous systems are on the frontiers of Artificial Intelligence (AI) research, and they are slowly finding their business applications. Driven mostly by Reinforcement Learning (RL) methods (one of the most difficult, but also the most promising modern AI algorithms), autonomous systems help create self-learning and self-optimising systems, ranging from simple game-playing agents to robots able to efficiently act in completely new environments. Based on in-depth study of more than 100 projects, Andrzej Wodecki explores RL as a key component of modern digital technologies, its real-life applications to activities in a value chain and the ways in which it impacts different industries.

ai in knowledge management: Knowledge Management and Virtual Organizations Yogesh Malhotra, 2000-01-01 Annotation Twenty essays present current research on knowledge management as related to effective design of new organization forms. The first section of the book covers frameworks, models, analyses, case studies and research on the integration of knowledge management within virtual organizations, virtual teams and virtual communities of practice. Themes covered in this section include business model innovation; design of virtual organization forms; net-based models; techniques for enabling knowledge capture, sharing and transfer; and collaboration and competition at intra- and inter-organizational levels. The focus of the second half is on key success factors that are important for realizing virtual models of business transformation. Topics include the role of organizational control systems, the role of internal and external employees and customers in creation of organizational knowledge, and information quality issues. Annotation c. Book News, Inc., Portland, OR (booknews.com).

ai in knowledge management: Handbook of Research on Artificial Intelligence and Knowledge Management in Asia's Digital Economy Ordóñez de Pablos, Patricia, Zhang, Xi, Almunawar, Mohammad Nabil, 2022-11-11 Artificial intelligence (AI) and knowledge management can create innovative digital solutions and business opportunities in Asia from circular and green economies to technological disruption, innovation, and smart cities. It is essential to understand the impact and importance of AI and knowledge management within the digital economy for future development and for fostering the best practices within 21st century businesses. The Handbook of Research on Artificial Intelligence and Knowledge Management in Asia's Digital Economy offers conceptual frameworks, empirical studies, and case studies that help to understand the latest developments in artificial intelligence and knowledge management, as well as its potential for digital transformation and business opportunities in Asia. Covering topics such as augmented reality. Convolutional neural networks, and digital transformation, this major reference work generates enriching debate on the challenges and opportunities for economic growth and inclusion in the region among business executives and leaders, IT managers, policymakers, government officials, students and educators of higher education, researchers, and academicians.

ai in knowledge management: Semantic Systems. The Power of AI and Knowledge Graphs Maribel Acosta, Philippe Cudré-Mauroux, Maria Maleshkova, Tassilo Pellegrini, Harald Sack, York Sure-Vetter, 2019-11-04 This open access book constitutes the refereed proceedings of the 15th International Conference on Semantic Systems, SEMANTiCS 2019, held in Karlsruhe, Germany, in September 2019. The 20 full papers and 8 short papers presented in this volume were carefully reviewed and selected from 88 submissions. They cover topics such as: web semantics and linked (open) data; machine learning and deep learning techniques; semantic information management and knowledge integration; terminology, thesaurus and ontology management; data mining and knowledge discovery; semantics in blockchain and distributed ledger technologies.

ai in knowledge management: Knowledge Management Jay Liebowitz, 2001-03-28 Knowledge Management (KM) is strongly rooted in the discipline of Knowledge Engineering (KE), which in turn

grew partly out of the artificial intelligence field. Despite their close relationship, however, many KM specialists have failed to fully recognize the synergy or acknowledge the power that KE methodologies, techniques, and tools hold for enh

ai in knowledge management: Artificial Intelligence for Knowledge Management Eunika Mercier-Laurent, Danielle Boulanger, 2017-04-10 This book features a selection of papers presented at the Third IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2015, held in Buenos Aires, Argentina, in July 2015, in the framework of the International Joint Conference on Artificial Intelligence, IJCAI 2015. The 9 revised and extended papers were carefully reviewed and selected from 15 submissions. They present new research and innovative aspects in the field of knowledge management such as knowledge models, KM and Web, knowledge capturing and learning, and KM and AI intersections.

ai in knowledge management: Working Knowledge Thomas H. Davenport, Laurence Prusak, 2000-04-26 This influential book establishes the enduring vocabulary and concepts in the burgeoning field of knowledge management. It serves as the hands-on resource of choice for companies that recognize knowledge as the only sustainable source of competitive advantage going forward. Drawing from their work with more than thirty knowledge-rich firms, Davenport and Prusak--experienced consultants with a track record of success--examine how all types of companies can effectively understand, analyze, measure, and manage their intellectual assets, turning corporate wisdom into market value. They categorize knowledge work into four sequential activities--accessing, generating, embedding, and transferring--and look at the key skills, techniques, and processes of each. While they present a practical approach to cataloging and storing knowledge so that employees can easily leverage it throughout the firm, the authors caution readers on the limits of communications and information technology in managing intellectual capital.

ai in knowledge management: Successes and Failures of Knowledge Management Jay Liebowitz, 2016-06-17 Successes and Failures of Knowledge Management highlights examples from across multiple industries, demonstrating where the practice has been implemented well—and not so well—so others can learn from these cases during their knowledge management journey. Knowledge management deals with how best to leverage knowledge both internally and externally in organizations to improve decision-making and facilitate knowledge capture and sharing. It is a critical part of an organization's fabric, and can be used to increase innovation, improve organizational internal and external effectiveness, build the institutional memory, and enhance organizational agility. Starting by establishing KM processes, measures, and metrics, the book highlights ways to be successful in knowledge management institutionalization through learning from sample mistakes and successes. Whether an organization is already implementing KM or has been reluctant to do so, the ideas presented will stimulate the application of knowledge management as part of a human capital strategy in any organization. - Provides keen insights for knowledge management practitioners and educators - Conveys KM lessons learned through both successes and failures - Includes straightforward, jargon-free case studies and research developed by the leading KM researchers and practitioners across industries

ai in knowledge management: The Complete Idiot's Guide to Knowledge Management Melissie Clemmons Rumizen, 2002 Discusses management models and concepts, strategies for sharing knowledge, and ways to implement the concept within a company.

ai in knowledge management: Concepts and Advances in Information Knowledge Management Kelvin Joseph Bwalya, Nathan Mwakoshi Mnjama, Peter Mazebe II Mothataesi Sebina, 2014-04-11 Effective information and knowledge resource management is a driver of competitiveness. Many developing countries have put mechanisms in place that seek to match knowledge-based economies, where information has become the fuel for responsiveness, innovation, and competition. Concepts and Advances in Information Knowledge Management brings out emerging and current discussion from the sub-fields of information management in this environment. This title consists of sections on key aspects of information knowledge management and addresses knowledge management, library studies, archives and records management, and

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