

Knowledge Futures: AI, Technology, and the New Business Paradigm

CALL FOR ABSTRACTS – IFKAD 2025

Special Track n.: 26

Thematic Area: AI, Healthcare and Technology

AI and Technology as Catalysts for Knowledge: Shaping Roles, Competences, and Value Creation in Healthcare

Description

In today's rapidly evolving world, the healthcare sector has faced mounting pressure to balance the chronic resource shortages and budget constraints with the growing demand for high-quality care, adopting a value-based approach, prioritizing outcomes that matter most to patients while optimizing resource allocation.

The lack of resources of the national health and social care systems of the western and developing countries, the multitude of players and stakeholders with conflicting interests, and the constant launch of new technologies is forcing the healthcare sector to innovate (*Jones et al., 2018; Williams, 2021*).

Healthcare stands at the forefront of sectors poised for transformation through the disruptive power of artificial intelligence. As AI continues revolutionizing care delivery, its study becomes essential for understanding its profound implications on patient outcomes. By enhancing both the accessibility and quality of care while simultaneously lowering costs, AI has the potential to reshape healthcare systems and improve the decision-making processes (*Kumar et al., 2023; Lee & Yoon, 2021; Stoumpos et al., 2023; Sunarti et al., 2021; Topol, 2019*). The disruptive power of artificial intelligence is founded on the ability to foster knowledge and competences, leveraging on tangible and intangible assets that becomes a fundamental driver of progress especially in the healthcare setting (*Rider et al., 2019; Evans et al., 2017*).

The revolutionary changes due to AI solutions and algorithms are transforming healthcare by revolutionizing knowledge management, particularly influencing and supporting the clinical decision-making (*Garcia-Vidal et al., 2019*) and the operational processes (*Lee & Yoon, 2021*).

AI's ability to process vast amounts of data enables healthcare providers and managers to identify patterns, forecast outcomes, and make evidence-based decisions (*Kaur et al., 2020*). AI-driven tools could facilitate diagnostics and clinical sphere, but also could enhance managerial and operational processes and activities, streamlining resources allocation (*Mithas et al., 2022*).

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In this vein, a new paradigm based on the AI-employee co-production is emerging where knowledge is not only stored but actively learned and shared in real-time with employees, allowing the utilization of proactive models and fostering a new culture where AI bridges the gap between data, learning, and decision-making (*Bayyapu, 2021*), creating a continuously improving cycle of knowledge that enhances both clinical outcomes and operational efficiency and defining business and organisational models based on features such as agility, adaptability, and innovation. This shift is enabled by AI but it is supported also by the availability of big data and other technologies, derived from the manufacturing sector, such as cloud-computing, IoT, automated solutions and robots (*Dimitrov, 2016*). This technological advancement generates a transition from linear and top-down processes to more dynamic, bottom-up and outcome-oriented models, that foster collaboration and continuous improvement, not only within the healthcare organisation's boundaries but assuming the ecosystem or the supply chain perspective.

Nevertheless, this paradigm shift also demands the development of new business strategies that are not only technologically advanced but also ethically grounded, ensuring that innovations align with broader societal goals, such as equity, sustainability, and patient-centric care (*Powell et al., 2022*). Indeed, the adoption of these technologies risks to advantage some groups of users and professionals, leaving others behind. The lack of adequate competencies, organizational infrastructure and top-management support may invalidate the effective adoption of these innovative technologies. Thus, there is a need to design inclusive policies, strategies and approaches for making these technologies a source of value for the whole healthcare ecosystem.

Adopting a value-based perspective (*Porter and Lee, 2013; Porter and Teisberg, 2007*), this track is designed to facilitate a comprehensive examination and understanding of how the knowledge emerging from new technologies and AI is changing both how processes and thus services to patients are carried out, impacting both the quality offered (outcome) and the efficiency of processes, with significant advantages also from an economic and financial point of view. It explores the pathways by which knowledge is acquired, refined, and applied, adopting AI solutions or innovative technologies, guaranteeing the sustainability of the healthcare system, addressing healthcare disparities and advancing the global health agenda. Furthermore, the advent of AI solutions and innovative technological solutions pointed out the necessity to develop new professional profiles (*Petersson et al., 2022*), such as the sustainability manager or other figures, rather than the aspects of performance and multidimensional assessment increasingly required within both healthcare facilities and healthcare manufacturing companies.

In this perspective, the proposed track welcomes conceptual and empirical papers addressing different and complementary dimensions of value for healthcare by embracing one or more strategic, managerial, organizational, and operational solutions. Aware that a comprehensive approach based on processes, resources and skills is needed to fully investigate the transformation due to AI and technologies implementation and utilization,

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this track aims to stimulate debate with contributions addressing, but not limited, to the following topics:

- How could healthcare organizations effectively manage their knowledge to foster the development of AI-driven and innovative healthcare products and technologies?
- How does the acquisition of knowledge through AI and innovative technologies influence healthcare organizations' behavior, leading to new governance models, including patient care, research, and policy development?
- What are the long-term impacts of AI and automation on the knowledge lifecycle within healthcare organizations, particularly in terms of knowledge retention and continuous improvement?
- What organizational factors could either facilitate or hinder the transformation of AI-driven knowledge into practical applications?
- How could AI solutions and technologies be efficiently applied within healthcare organizations to drive innovation and enhance sustainability in healthcare delivery?
- How can AI solutions and technologies support understanding patients' needs and contribute to developing competitive healthcare innovations, treatments, and patient care approaches?
- How can AI solutions and technologies improve the healthcare services, hospitals, and healthcare organizations, in terms of performance and value creation?
- How can AI solutions be designed to support knowledge co-creation between healthcare providers and patients, fostering a more participatory healthcare model?
- What competences and skills are required to transform AI-driven knowledge into healthcare innovations, improving also patient care?
- What competences and skills are required by healthcare organizations to balance operational performance, availability of data and privacy?
- What are the implications of AI-driven knowledge management for cross-functional roles in healthcare, such as the advent of the sustainability manager, and how can these roles be integrated into existing organizational structures?
- How theoretical lens, such as dynamic healthcare capabilities, organizational learning, and resource- and competence-based views, could be applied to investigate AI-driven knowledge generation, transformation and diffusion within healthcare organizations?
- What are the determinants and barriers of AI and technological solutions implementation in healthcare, and how can they be measured and evaluated?
- What are the business process innovation opportunities unlocked through AI and technological solutions' adoption in healthcare?
- What is the relationship between a healthcare organization's ability to translate knowledge and value creation, especially through AI and innovative technologies?
- How could the effectiveness of AI technologies in healthcare, particularly regarding their contribution to knowledge creation and sharing, be measured?

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- How can AI-driven knowledge support the optimization of healthcare operations, including resource allocation and process efficiency?

Keywords

AI-driven knowledge management, operational processes, technology assessment, value co-creation, performance measurement

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Guidelines

Researchers wishing to contribute are invited to submit an **EXTENDED ABSTRACT** (in editable format) of **min 500 and max 1000 words** not later than **31 JANUARY 2025**, using the submission procedure available on the website. The abstract should address theoretical background, research objective, methodology, and results in terms of expected contribution to Knowledge Management theory and practice. Authors are required to follow the guidelines for both extended abstracts as well as full papers available on IFKAD site: www.ifkad.org

Important dates

31 January 2025	<i>Extended Abstract submission deadline</i>
24 February 2025	<i>Acceptance notification to authors</i>
20 April 2025	<i>Early-Bird registration cut off</i>
02 May 2025	<i>Full paper submission deadline</i>
31 May 2025	<i>Registration deadline</i>
2-4 July 2025	<i>Conference sessions</i>

For further information

For any information related to the event, please see the event website at www.ifkad.org or contact the conference manager at info@ifkad.org