

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

IFKAD 2025
2-4 JULY 2025
NAPLES, ITALY

CALL FOR ABSTRACTS – IFKAD 2025

Special Track n.: 59

Thematic Area: AI, Healthcare and Technology

Navigating Healthcare Transformation: Assessing AI, Robotics, and Human-Machine Collaboration

Description

In recent years, the global healthcare sector has undergone profound changes driven by the rapid adoption of advanced digital technologies, including artificial intelligence (AI), robotics, and decision-support systems. These innovations have introduced new opportunities for process automation, enhanced diagnostic precision, and optimized resource allocation. However, the integration of such technologies into healthcare systems presents critical challenges, particularly concerning human-machine interaction, which necessitates careful exploration to ensure safe and effective implementation. This track aims to explore the critical role of “technology assessment” in the healthcare sector. The goal is to ensure that the adoption of innovative technological solutions is based on a thorough evaluation of their benefits and associated risks, extending beyond technical considerations to include ethical, behavioral, and societal dimensions. Human-machine interaction, in particular, is emerging as a pivotal area of investigation, especially as AI technologies become embedded in daily clinical routines. This raises important questions about patient safety, fairness, transparency, and the acceptance of technology by healthcare professionals.

In the context of rapid technological advancements, it is essential to examine how these interactions impact the effectiveness of clinical processes, the quality of patient care, healthcare worker training, and overall well-being. By addressing these concerns, this track seeks to redefine the future of healthcare, placing technology at the service of knowledge, patient outcomes, and organizational efficiency.

Technology assessment in healthcare, with a special focus on human-machine interaction, presents a complex and multidimensional challenge. It demands an interdisciplinary dialogue to generate evidence-based insights and offer strategic guidance for policymakers and healthcare managers. Our aim is to foster sustainable, adaptive approaches that address the evolving needs of global healthcare systems.

We invite submissions that explore these themes, offering both theoretical insights and practical case studies to contribute to the ongoing conversation on the future of healthcare in the digital age.

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OBJECTIVES:

- Assess the role of digital technologies and artificial intelligence in healthcare evolution, emphasizing how human-machine interaction can improve quality of care, optimize clinical processes, and enhance patient safety.
- Explore the key factors and dynamics that influence the adoption of emerging technologies in health systems. Underline the crucial importance of understanding these factors to effectively navigate the technical challenges and ethical, organizational, and behavioural implications that condition the integration of technological innovations.

QUESTIONS:

- What specific frameworks or methodologies are most effective for conducting comprehensive technology assessments in healthcare, particularly regarding human-machine interaction?
- How do AI and robotics influence patient safety and clinical decision-making processes, and what ethical considerations arise from their integration into routine healthcare practices?
- In what ways can human-machine interaction affect the acceptance of digital technologies by healthcare professionals, and what strategies can be implemented to improve their adoption?
- How do the rapid advancements in digital health technologies impact the training and well-being of healthcare workers, and what role does technology assessment play in addressing these effects?
- What are the key challenges in balancing the technical, ethical, and behavioral aspects of new technologies in healthcare, and how can interdisciplinary collaboration contribute to sustainable health system improvements?

EXPECTED TOPICS IN SCIENTIFIC CONTRIBUTIONS:

We invite researchers, practitioners, and experts to submit contributions that address the following topics, although submissions beyond this scope are also welcome if they relate to the overarching theme of technology assessment and human-machine interaction in healthcare:

- Frameworks for Technology Assessment in Healthcare:
 - Development and application of methodologies to assess the benefits, risks, and long-term implications of adopting AI, robotics, and other digital technologies in healthcare settings.
 - Comparative studies on the effectiveness of different technology assessment models.
- Human-Machine Interaction in Clinical Practice:
 - Analysis of how AI and robotics are reshaping human roles in healthcare and the resulting implications for patient care, decision-making, and workflow.
 - Case studies of human-machine collaboration in diagnostic processes, surgery, and other clinical practices.
- Ethical, Legal, and Societal Implications of AI and Robotics:

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- Examination of ethical challenges posed by AI and robotics in healthcare, including issues of transparency, fairness, privacy, and accountability.
- Discussions on legal frameworks and policies governing the use of AI technologies in healthcare, with a focus on patient rights and safety.
- Adoption and Acceptance of Digital Health Technologies:
 - Factors influencing the adoption of AI and digital health solutions by healthcare professionals, and strategies to improve their acceptance.
 - Behavioral studies on the interaction between healthcare workers and digital systems, focusing on trust, usability, and user experience.
- Impact on Clinical Pathways and Patient Outcomes:
 - Investigations into how digital technologies are reshaping clinical pathways and their effects on treatment effectiveness, patient satisfaction, and healthcare delivery efficiency.
 - Contributions that explore the role of AI in personalized medicine and precision healthcare.
- Training and Workforce Development:
 - Research on the impact of digital health technologies on healthcare worker training, education, and professional development.
 - Innovative approaches to integrating AI, robotics, and other digital tools into healthcare curricula.
- Sustainability and Global Health Systems:
 - Discussions on how technology assessment can guide sustainable healthcare development, particularly in low-resource settings.
 - Contributions examining the role of AI and digital health solutions in enhancing global health equity and access to care.
- Interdisciplinary Approaches to Health Technology Assessment:
 - Insights from cross-disciplinary collaboration between healthcare professionals, data scientists, ethicists, policymakers, and technologists.
 - Best practices for fostering interdisciplinary research and decision-making to support the responsible integration of AI in healthcare systems.

We encourage submissions that combine theoretical frameworks with practical case studies, as well as interdisciplinary approaches that bring together diverse perspectives to address the complexities of modern healthcare technologies.

Organizers

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[Special Track details published on IFKAD website >>](#)

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

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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

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| 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