**Artificial Intelligence in the Scientific Production of the RCMOS Journal (2023–2024): A Critical Review —** *Trends, Applications, and Challenges in Education, Cybersecurity, and Law*

***Artificial Intelligence in the Scientific Production of RCMOS Journal (2023–2024): A Critical Review —** Trends, Applications, and Challenges in Education, Cybersecurity, and Law*

Barbara Aline Ferreira Assunção

**Summary**

This study presents a critical review of the scientific production published in the *Multidisciplinary Scientific Journal O Saber* (RCMOS) between 2023 and 2024 on Artificial Intelligence (AI), focusing on the areas of education, cybersecurity, and law. The analysis included articles addressing topics ranging from AI-mediated personalization of learning to applications in digital security and automated legal practices. The results highlight advances in process adaptation, system efficiency, and decision-making, as well as challenges related to infrastructure, professional training, privacy, and ethics. RCMOS stands out as a space for multidisciplinary scientific dissemination, connecting theory and practice and strengthening the debate on the impact of AI on contemporary society. We recommend expanding interdisciplinary studies, encouraging international collaborations, and promoting thematic issues to consolidate the journal's position as a scientific reference in the digital age.

**Keywords:** Artificial Intelligence; Education; Cybersecurity; Law; Scientific production.

**Abstract**

This study presents a critical review of the scientific production published in the *Revista Científica Multidisciplinar O Saber* (RCMOS) between 2023 and 2024 on Artificial Intelligence (AI), focusing on education, cybersecurity, and law. The analysis covers articles addressing topics such as AI-driven personalized learning, applications in digital security, and automated legal practices. Findings reveal significant progress in process adaptation, system efficiency, and decision-making, alongside challenges related to infrastructure, professional training, privacy, and ethics. RCMOS stands out as a multidisciplinary scientific dissemination platform, bridging theory and practice while strengthening the debate on AI's impact in contemporary society. Future research should expand interdisciplinary approaches, foster international collaborations, and promote thematic issues to further consolidate the journal's position as a scientific reference in the digital era.

**Keywords:** Artificial Intelligence; Education; Cybersecurity; Law; Scientific production.

**Introduction**

With OpenAI's August 2025 announcement of the GPT-5 model router, the relevance of artificial intelligence (AI) has reached a new global level. This advancement represents a potential game-changer for several areas of knowledge. As AI models large languages become more sophisticated and resource-intensive, a horizon opens up promising for the application of AI in complex contexts.

In this scenario, *RCMOS - Multidisciplinary Scientific Journal of Knowledge* has consolidated itself as a fundamental stage for debate and scientific dissemination on the impact of AI.

Over the past two years, the magazine has published a series of articles that reflect diversity and

innovation in research carried out in Brazil and other countries, bringing contributions

relevant that dialogue with the contemporary challenges of this technology.

This article seeks to map and analyze the main studies published in *RCMOS* about

artificial intelligence, identifying trends, advances and gaps, with the aim of positioning

the journal as a scientific reference center in the context of the digital revolution we are experiencing

experiencing.

**Overview of RCMOS Papers on Artificial Intelligence (2023–2024)**

Over the last two years, *RCMOS* has stood out as a reference hub in

publication of studies investigating the revolutionary impact of Artificial Intelligence (AI)

in the fields of education and multidisciplinary health. The thematic diversity of these works

ranges from the introduction of AI into the school environment to the personalization of teaching

from a distance, to the ethical and practical challenges that emerge from this technological transformation.

In the article "Artificial Intelligence in the School Environment" (Macedo, 2024), it is presented

a review of the application of AI in schools, highlighting its role as an ally of

teachers and institutions in the modernization of educational methodologies. In the words of

author, *"The widespread use of AI in various fields and in everyday life imposes the need*

*to understand basic concepts such as Machine Learning, Artificial Neural Networks, Deep*

*Learning, Data Science and Big Data, skills that can be developed during the*

*computer science studies in school education"* (Macedo, 2024, p. 1).

The integration of AI into distance education is highlighted in studies such as

"Integration of Artificial Intelligence in Distance Education: Challenges and Potentials" (Benício

de Sá et al., 2024) and "Challenges and Opportunities in the Integration of Artificial Intelligence in

Distance Education" (Franqueira et al., 2024). These works highlight the possibilities

of personalizing learning and highlight the technological and ethical obstacles still to be

overcome for effective implementation.

Beyond the educational sphere, *RCMOS* has published analyses on the impact of AI on

other areas, such as cybersecurity, a topic explored in "The role of cybersecurity in the era

digital: challenges, trends and global solutions" (Souza, 2024), and the personalization of teaching

mediated by educational technologies, discussed in "Educational Technologies and

Personalization of Education: Challenges and Opportunities" (Silva et al., 2024).

Also noteworthy is the reflection on the role of AI in specific contexts, such as

the legal, exemplified by the article "The Lawyer's Challenge with the Impact of Intelligence

Artificial" (Cardoso, 2024). This study analyzes the impacts and challenges of automation

in professional practice, emphasizing the need for adaptation by legal professionals

facing digital transformation. According to Cardoso (2024, p. 19), *"The adoption of digital intelligence*

*artificial in legal practices is the result of an extensive process dedicated to optimizing the*

*time and standardization of procedures, aiming to promote greater cohesion and integration*

*administrative in the Brazilian Judiciary".*

This robust set of publications demonstrates *RCMOS* 's strategic role in

to map and foster critical debate on contemporary AI advances. The journal

positions itself at the forefront of science by promoting a multidisciplinary approach that combines ethics,

innovation and efficiency, contributing to the development of transformative practices in

different areas of knowledge.

**Integrated Discussion**

The joint analysis of articles published by RCMOS between 2023 and 2024 reveals a

scenario that is both promising and challenging for the application of Artificial Intelligence (AI)

in education and multidisciplinary health. Among the recurring themes, the capacity of

AI to personalize learning in distance learning environments by adapting content

and methodologies to the individual needs of students. This flexibility represents a

advancement in the use of educational technologies, favoring more learning experiences

effective and student-centered.

According to Russell and Norvig (2016), AI encompasses a set of techniques capable of

act on different fronts — from voice recognition and monitoring systems in

real-time to autonomous vehicles and tools to support medical diagnosis. By taking on

activities previously restricted to human labor, AI enables adaptive processing of

large volumes of data, expanding the scope and speed of decision-making.

However, this progress is accompanied by technical and ethical challenges that cannot

be ignored. Among them, the need for robust technological infrastructure stands out,

ongoing training of teachers and the implications related to privacy and the use of

information.

In addition to the educational sector, cybersecurity appears as a strategic field for

protect digital systems in a reality increasingly dependent on AI. This

interdependence between emerging technologies and contemporary social challenges reinforces the

importance of integrated and preventive solutions.

In the legal field, Artificial Intelligence has also been reshaping practices

traditional. As Mattos, Curto and Mussallam (2024) point out, tools based on

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AI is being used in law firms and courts to automate tasks

repetitive tasks — such as document review, contract analysis, and legal research — in addition

to predict procedural outcomes based on large historical data sets. This

transformation requires technical updating on the part of professionals and the establishment of

new ethical frameworks to guide its application.

The set of evidence presented by the studies published in RCMOS confirms the

relevance of a multidisciplinary and collaborative approach to enhance the benefits

of Artificial Intelligence, minimizing risks and inequalities. By gathering and disseminating research

of quality on the subject, the journal consolidates its role as a scientific reference and agent of

innovation, contributing to the construction of a more technological and inclusive future.

**Final considerations**

The integrated analysis of articles published by RCMOS between 2023 and 2024 shows that

Artificial Intelligence (AI) occupies an increasingly central space in academic discussions.

The reviewed studies demonstrate that AI is capable of driving advances in personalization of

processes, in supporting decision-making and in optimizing resources, expanding the

possibilities for innovation in different fields of knowledge.

RCMOS's contribution to this debate is revealed in the diversity of research

published, which cover everything from practical applications in teaching and cybersecurity to reflections

ethical and legal issues regarding automation. By providing a multidisciplinary space for dissemination

scientific, the journal strengthens the bridge between theory and practice, connecting researchers,

professionals and society around critical and current issues related to AI.

For future research, it is recommended to further investigate the impact of AI on

different socioeconomic contexts, considering variables such as digital inclusion,

accessibility and technological sustainability. It is also suggested to expand studies on

ethical guidelines and public policies that guide the safe use of these technologies. In what concerns

with respect to RCMOS, it is recommended to continue prioritizing interdisciplinary studies

on AI encouraging international collaborations and promoting thematic editions that

further consolidate the journal's position as a scientific reference in the world of

digital transformation.

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