

Challenges of Leadership and Learning in Higher Education in the AI Era

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Abstract

The research examined how artificial intelligence is transforming leadership in higher education, paying particular attention to institutional governance, teaching and learning. Applying a literature review, the research has synthesized international policy documents and recent academic research on digital transformation, IT integration, academic integrity and transformational leadership. The results of the research have presented the fact that AI has managed to move the leadership from mainly administrative functions, towards a strategic, adaptive and professionally and ethically oriented approach and role. On the other hand, various challenges have been highlighted such as the personalization of learning, inevitable pedagogical innovation, ethical change, academic integrity and a need for stronger institutional capacities. A positive connection has been presented between the international frameworks and the responsible integration of AI. While the leadership in higher education in Kosovo has reflected global trends, it is a little limited in terms of institutional capacities, training and institutional support. In the end, we say that transformational leadership is essential to achieve a positive correlation between technological changes and academic quality, ethical responsibility and local needs. The study contributes by connecting international AI governance frameworks with the emerging higher education context in Kosovo, highlighting the gap between global AI strategies and local institutional readiness. The findings provide practical implications for university governance, institutional policy development, academic staff training, and ethical AI implementation in higher education.

Keywords: artificial intelligence, higher education leadership, digital transformation, academic integrity, adaptive governance

INTRODUCTION

Higher education systems around the world are facing major transformations as a result of rapid developments in artificial intelligence AI (Holmes, 2019), specifically generative. Through these major changes that are being made, the methodology of production, distribution and evaluation of knowledge has also been changed (Zawacki-Richter et al., 2024), which is directly challenging the traditional role of universities, which are the main sources of knowledge and learning in the world. In this context, we can say that higher education institutions are facing the need to review pedagogical models, organizational structures and different leadership approaches. Various international organizations such as UNESCO, OECD, European Commission, have emphasized the importance of the responsible integration of artificial intelligence in education, especially at the university level. In 2023, an approach called human-centered was promoted, drawn up by (UNESCO, 2023), which emphasized the ethical and comprehensive use of AI, while on the other hand, the need for adaptive systems that must be prepared for the future was underlined (OECD, 2021, 2023). Even the European Commission in 2021 has drawn up an action plan for digital education, where the development of digital competences and the construction of inclusive digital ecosystems have been promoted (European Commission, 2021). Despite these documents and initiatives, digital transformation and AI integration are significantly challenging higher education institutions, especially in terms of leadership and governance. These changes are looking for new leadership models that provide support for pedagogical innovation, capacity building and the development of flexible organizational cultures, as recommended in recent contemporary literature, in the pedagogical aspect (Fullan, 2016). AI is also affecting the teaching and learning process (Luckin, R & Holmes, W, 2016), which is creating opportunities for personalization of learning, while on the other hand it is challenging academic integrity and the appropriate assessment of students (Lund, Brady D et al., 2025).

In the context of Kosovo, this debate about artificial intelligence in higher education and leadership is one of the most important issues, since it has the same effects on digital transformation and presents great challenges for its implementation. However, global trends and international frameworks have provided important guidelines to achieve a responsible integration of AI, where recent studies in Kosovo show that students have generally positive attitudes towards the use of AI (Çerkini, et al., 2025), but at the same time emphasize the need for training, guidance and more structured institutional support; (Morina, et al., 2025). This makes Kosovo an important case for understanding how global AI trends translate into local higher education realities. Looking to present a comparative concept, the purpose of this study is to analyze artificial intelligence and the transformation of leadership in higher education, presenting an examination of its impact on institutional governance, teaching and learning, as well as connecting this to the context of Kosovo and the international frameworks of UNESCO, OECD and the European Commission. To achieve the goal of this research, the following research questions are presented:

1. How has artificial intelligence transformed the role of leadership in higher education?
2. What are the main challenges and opportunities arising from the integration of AI in institutional governance, teaching and learning?
3. How are these developments reflected in the context of Kosovo in relation to international frameworks for the integration of AI in higher education?

The paper is organized into five main sections. Following the introduction, the literature review examines the evolution of leadership in higher education, AI integration, governance, and international frameworks. The methodology section explains the literature review approach and source selection process. The results section presents a comparative synthesis between international findings and the Kosovo context. Finally, the paper concludes with recommendations, limitations, and directions for future research.

LITERATURE REVIEW

The evolution of leadership in higher education in the digital age - The growth of leadership in higher education throughout the digital age coincided with technical, institutional, and pedagogical innovations that have impacted universities in recent decades. The digitalization of education included not only the incorporation of electronic tools into pedagogy, but also the transformation of the organizational structure of academic, administrative, and strategic activities inside higher education institutions. In the study conducted by (Alexiadou & EAP, 2024), they pointed out that the expansion of digital technologies in education intensified especially during and after the pandemic period, when the need for sufficient technological resources, inclusion and more equal access to learning became more apparent. Author (Amiri, 2025) contended that the digital transformation has redefined 21st-century education by altering pedagogical strategies, assessment techniques, and student engagement. Simultaneously, it has revealed systemic challenges, including the digital divide, privacy threats, and ethical dilemmas. This meant that university leaders were no longer just in charge of running the school. They were now also in charge of managing change, making plans for the future, and making sure that technology could be used in a way that would last.

This change was also seen in the way universities are organized. Authors Cecchini et al. (2024) said that the digital transformation in Europe has pushed higher education institutions to adopt more flexible models that focus on lifelong learning, online and blended teaching, and the growth of digital skills. Similarly, (Gkoutis, Thode, & Paliokas, 2025), showed that European policies for digital transformation were not only built around the adoption of new technologies (Keržič, Aristovnik, & Ravšelj), but also around preparing education systems for the demands of the digital economy and the workforce of the future. This expanded the role of institutional leadership, because university leaders were faced with the need to connect academic priorities with public policies, technological development and labor market demands.

With the more pronounced entry of artificial intelligence into higher education, the evolution of leadership took on an even more strategic dimension. Also in his study, (Bollaert, 2025), had argued that AI was no longer treated simply as a tool, but as part of the strategic objectives of higher education institutions, because it influenced their mission, organization, culture and way of leadership. Along the same lines, (Bashir & Beydoun, 2026), pointed out that the transformation of higher education through AI required strategic planning, institutional roadmaps for technology integration, and constant balancing between innovation and risk management (Javed & Mujtaba, 2026). Even (Ara, 2026), underlined that the use of AI in higher education was linked to the objectives of sustainable development and the need to maintain the balance between innovation, equity and inclusion. Thus, leadership in higher education was no longer developed only as an institutional management process, but as a form of leadership that had to combine strategic vision (Schmoldt, Benthe, & Haberland, 1975), ethical sensitivity and the

ability to orientate institutions in an increasingly digital and complex environment (Organised by: WHO/Europe & persons: Natasha Azzopardi Muscat (WHO/Europe), 2025).

Artificial intelligence as a transformative factor in higher education - the integration of Artificial Intelligence is seen as one of the main factors in the transformation of higher education, because it has a high impact on the processes of teaching, learning and institutional governance (POLICY, 2024). This shows that it is not limited only to the use of technological tools, but this also has effects on the way universities are organizing learning, how they are doing assessment and strategic decision-making methods (Alfaleh, 2026). Recent researches show that the application of AI in academic assessment is increasing the consistency of grading and is enabling more frequent feedback for students, but at the same time there is also a lack of institutional policies for transparency and ethical governance (Luckin, Holmes, & Forcier, 2018). A research conducted by (Butson & Spronken-Smith, 2024), has argued that the implication of AI in scientific research and in academic processes, has opened a debate between technological efficiency and academic integrity, which has pushed university leadership towards the development of more critical and reflective approaches to technology in general.

Even the ethical and governance dimension of AI has also become part of the transformation of higher education, while in the research conducted by (Mumtaz, S et al., 2025), where they found that the use of AI-based tools requires the preparation of future leaders for the ethical use of decision-making and the responsibility of technology. Also, the integration of AI in higher education has required the development of mechanisms to ensure quality and maintain academic integrity (Sultana, 2025) while global guidelines for the use of AI in education link technological transformation with the objectives of sustainable development and the need for responsible implementation in higher education institutions (Li, & E5, Riverrias). The transformative impact of AI was also reflected in the development of pedagogical competencies and innovation, precisely in the research conducted by Liu et al., it was pointed out that the integration of AI in sustainability education increased students' awareness and supported the development of analytical competencies (Doğru & DOĞAN, 2025).

The connection between AI and leadership in higher education - a connection between artificial intelligence and leadership in higher education is developing as a result of the integration of intelligent information technology tools into various processes, both academic and organizational, of universities around the world. This implementation is requiring institutional leaders to change their approach in terms of traditional management, towards a leadership of digital transformation (Bean, et al., 2025), where it has been argued that ethical guidelines for development from various international organizations, especially those of UNESCO, have influenced the growth of the role of leadership to achieve transparency, responsibility and inclusion during the integration of AI, (Bean, et al., 2025). In the context of interconnection, the development of new competencies should also be taken into account to balance institutional priorities with global requirements for the ethical governance of technology (Kabanda, 2025). Also in the study by (Pesek, 2026), it is emphasized that the relationship between AI and leadership was also reflected in the dimension of policies and institutional regulation, while it is clearly argued that the era of artificial intelligence requires new models of educational governance that integrate university autonomy with technological regulation mechanisms (Cecchini, et al., 2024).

It is considered that the regulation of AI in higher education, especially in the context of the Western Balkan countries, required coordination between institutions and the development of joint policies for responsible implementation. This showed that university leadership was not limited to the institutional level, but also extended to international cooperation and the development of regulatory frameworks

(Turulja & Kapo, 2025), Also, the connection between AI and leadership was shown in the development of strategies for the digital transformation of higher education. The study from (Rodero, 2023), argued that European plans for digital education increased the importance of leadership in promoting lifelong learning and developing digital competences. Similarly, (Pokorny, 2026), emphasized that the digital transformation of education was considered a prerequisite for innovative and economic development, requiring leaders who oriented institutions towards advanced technologies. These developments linked leadership with the ability to develop strategic visions and manage technological change sustainably (Luckin, R & Holmes, W, 2016).

The link between AI and leadership was also reflected in the global and international dimension of higher education. The author (Gosztanyi, 2026), showed that universities in Asia integrated AI to support the internationalization and development of scientific research, seeking new models of academic leadership. At the same time, (Singh, A et al., 2025), argued that the use of AI for inclusive education required leaders who promoted equity and access to technology. The author's (Ruffini & Silva, 2025) emphasized that the integration of AI into teaching practices required leadership that supported contextualized approaches and institutional adaptation. These developments showed that the relationship between AI and leadership in higher education developed as an interdependent process, where technological transformation directly affected the way of leadership and strategic decision-making in universities.

The frameworks and influence of AI in teaching and learning in the context of Kosovo - currently the international frameworks that have been designed for the integration of artificial intelligence in higher education, which were developed with the aim of organizing leadership at the world level, are aimed at raising leadership capacities within the framework of responsibility, inclusiveness and the strategic aspect of technology. In 2021, the OECD emphasized that the integration of digital technology tools and AI is requiring a more flexible approach that supports quality and equity in education in general (OECD, 2021), while in 2023 it argued that digital transformation depended on enabling factors such as digital infrastructure, professional development of staff and sustainable institutional policies (OECD, 2023). Also in 2021, the Action Plan for Digital Education was drawn up, aiming to support the development of digital competences and the construction of comprehensive higher education ecosystems (European Commission, 2021). It is considered that the use of AI in education should be based on transparency, responsibility and inclusiveness, requiring that the technological transformation is accompanied by ethical policies and clear institutional guidelines.

According to UNESCO (2023) said that these worldwide frameworks showed that integrating UA required more than just knowing how to use technology. It also needed policy, knowledge, and government cooperation to change institutions and teaching methods. These changes were seen in the way students in Kosovo acted and did in school. Most of the Kosovoan college students who took part in the study by (Çerkini, et al., 2025) had favorable feelings about AI. The students who used it more regularly also said they did better in school. The same study also showed, however, that rigid rules and a lack of training made it harder to use it more effectively. (Morina, et al., 2025) also said that spending money on digital infrastructure and training personnel made teaching better and led to the creation of more participatory methods at Kosovo's higher education institutions that employed AI. The instance of Kosovo showed that there are differences in how AI is used in education throughout the world. Nonetheless, the efficacy of their execution depends on the capabilities of pertinent institutions, the

support of relevant organizations, and the extent to which international rules are adapted to align with local policies and practices.

There are a lot of challenges and chances for transformational leadership in the age of AI - The use of AI in higher education is creating a lot of challenges and chances that need transformational leadership to deal with. One of these challenges is managing changes in institutions and building digital skills. In the same way, (Javari, 2026) said that individualized virtual learning systems needed leaders who would help change the way teachers teach and help staff improve their digital skills. There are also problems with ethics and academic honesty (Li, Tolosa, Rivas-Echeverria, & Marquez, 2025). The author (Lund, Brady D et al., 2025) said that using AI in higher education created questions about the legitimacy of scholarly publications and called for institutional measures to keep things honest. According to (Mumtaz, S et al., 2025) also said that leaders have to provide clear rules on how to utilize AI technologies in an ethical way. In the same way, (Sultana, 2025) said that leaders need to find a balance between new ideas, quality control, and academic governance (Guerra, 2025).

The literature also identified significant prospects for transformative leadership. Also, (Liu, Wang, Guo, & Tang, 2026) demonstrated that using AI may help students become more conscious of sustainability and improve their analytical skills. According to (Rongkui, et al., 2026) contended that AI transformed the curriculum and facilitated pedagogical innovation, hence generating prospects for the creation of more adaptable programs. According to (Kapoula, O et al., 2026) conducted another research that emphasized the need of systems thinking and leadership in AI-driven innovation, advocating for the incorporation of technology into strategic decision-making. The global aspect of the shift also opened up chances for countries to work together. According to (Gosztonyi, 2026) also demonstrated that using AI in Asian colleges helped scientific research become more international and grow. According to (Ruffini & Silva, 2025) also stressed that AI integration needed leaders that supported instructional methods that were specific to the situation. According to (Singh, A et al., 2025) contended that AI may enhance inclusive education provided leaders advocate for equal access and the development of digital competences.

MATERIALS AND METHODS

Research design: this research takes a current literature review approach, with the aim of reviewing, analyzing and synthesizing the existing literature in relation to leadership in higher education and the age of artificial intelligence. Through this approach, it is possible to build a theoretical and analytical overview of the transformations that are taking place in higher education, as a result of digitalization, integration of AI and major changes in institutional governance. This research has also presented a thematic and comparative analysis between international sources and the context of the integration of artificial intelligence and leadership in higher education in Kosovo. In order to achieve a clear approach to analysis, documents of UNESCO, OECD and the European Commission were analyzed, as well as various documents in higher education, which were placed in relation to concrete developments in higher education institutions in Kosovo (UNESCO, 2023; OECD, 2021; OECD, 2023; European Commission, 2021). This approach was considered appropriate also because the existing literature on artificial intelligence in education is fragmented between theoretical debates, policy analyzes and empirical studies. For this reason, the literature review offered the opportunity to synthesize different approaches and identify the points where university leadership is connected with digital transformation, ethics, governance and pedagogical change. Moreover, the inclusion of studies dealing with Kosovo made it possible for the global topics not to remain only at the theoretical level, but to be related to the

local reality of the use of AI in higher education (Çerkini, et al., 2025). The conceptual framework of the study is presented in Figure 1, which illustrates the interrelationship between international frameworks, leadership in higher education, AI integration and the Kosovo context.

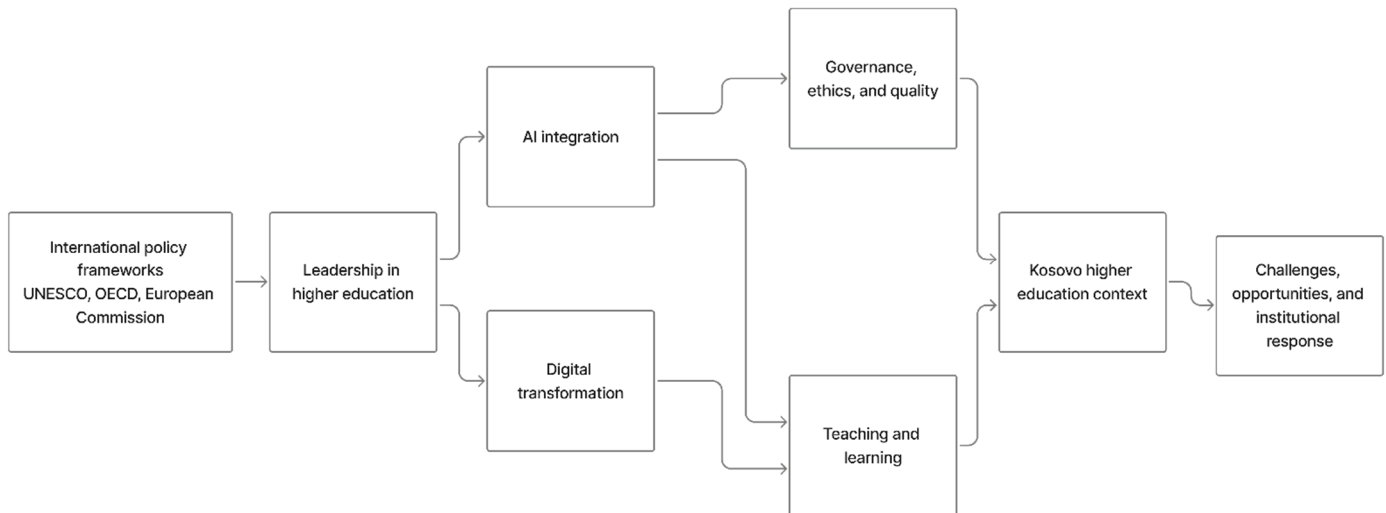


Figure 1 Conceptual framework of the study: the interrelationship between international frameworks, leadership in higher education, AI integration and the Kosovo context.

The selection of sources and the analysis procedure - the literature is selected in a structured way, supporting a logic of PRISMA, which clearly presents the process of identification, filtering and selection of the literature. At the beginning, scientific articles, book chapters, intercommunity reports and policy documents dealing with leadership in higher education, artificial intelligence, digital transformation, government, ethics, teaching and learning have been identified. Sources were first reviewed based on titles and abstracts, while full texts were then evaluated according to their relevance to the main study topics, such as leadership evolution, AI as a transformative factor, the relationship between AI and leadership, international frameworks, impact on teaching and learning, and challenges and opportunities for transformational leadership. After the selection, the literature was organized thematically and analyzed in a comparative way, linking international findings with the case of Kosovo, especially in terms of teaching, institutional policies and professional development of staff.

In numerical terms, 45 sources were initially identified, of which 8 were excluded in the initial phase, 37 were examined in full text and, after the exclusion of 5 other sources for lack of direct relevance, 32 sources were included in the narrative analysis of the literature review.

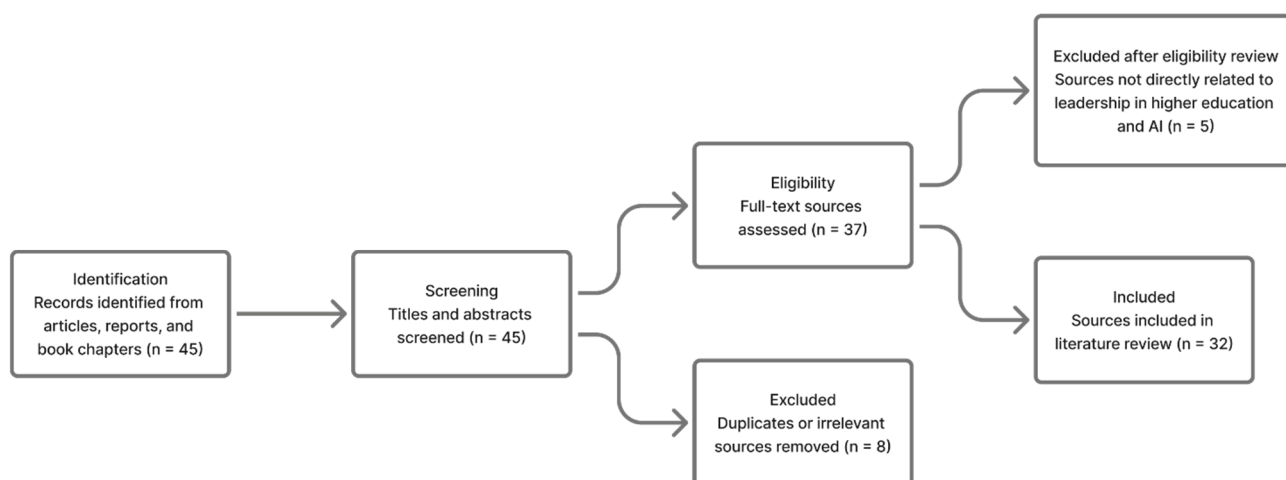


Figure 2 Literature selection flow based on the PRISMA logic.

The significance of the study and the connection with Kosovo - the study deals directly with educational leadership, precisely higher education as a field that enables technological, pedagogic, institutional governance and educational policies to be connected. The study also contributes to the synthesis of the exciting literature and a good placement, in relation to the context of Kosovo, thus achieving an analysis of the integration of AI which is not only considered a technological issue, but a strategic, ethical and organizational process. The study also has theoretical value, because it systematizes the academic debate on leadership in the era of AI, and practical value, because it can serve as a basis for reflection for policy makers, university leaders and researchers in Kosovo and beyond. The connection with the case of Kosovo further strengthens the importance of the paper, since the use of local and regional studies makes it possible for the recommendations and challenges identified in the international literature to be analyzed in relation to the capacities, policies and institutional reality in higher education in Kosovo.

This comparative approach helps in understanding the gap between global frameworks and local implementation, as well as in highlighting the need for clearer institutional policies, training and development of digital competences. However, the study has some limitations, as it relied on literature review and did not include direct collection of empirical data through interviews, surveys or observations in concrete institutions. Also, the local literature on artificial intelligence and leadership in higher education still remains limited, therefore the analysis relied heavily on international studies and documents. Furthermore, the field of artificial intelligence is rapidly evolving, which means that policies, practices, and academic debates can change at a rapid pace. Despite these limitations, the connection of the international literature with the case of Kosovo gives the study special value in the comparative and practical plan.

RESULTS AND FINDINGS

In order to synthesize the findings of the literature review and to present in a structured manner the relationship between the international literature, the context of Kosovo and the implications for

leadership in higher education, the results were organized in a comparative form according to the main dimensions of the analysis.

Table 1 Comparative synthesis of results and findings from the literature review

Dimension / theme	Findings from the international literature	Findings from the Kosovo context	Implications for leadership in higher education
Digital transformation and the role of leadership	Digital transformation made leadership more strategic and change-oriented (Alexiadou & EAP, 2024; Amiri, 2025; Cecchini et al., 2024; Gkoutis et al., 2025).	In Kosovo, this increased the need for clearer policies and stronger institutional readiness for AI (Çerkini et al., 2025; Morina et al., 2025).	Leaders should adopt a more transformative role.
AI as a transformative factor	AI reshaped teaching, learning, assessment, research, and decision-making (Alfaleh, 2026; Butson & Spronken-Smith, 2024; Javari, 2026; Bollaert, 2025).	In Kosovo, AI was more visible in student experience and academic practice than in institutional strategy (Çerkini et al., 2025; Morina et al., 2025).	Leadership should support structured AI integration.
Governance, ethics and academic integrity	The literature stressed ethics, accountability, quality, and academic integrity in AI use (UNESCO, 2023; Bean et al., 2025; Mumtaz et al., 2025; Sultana, 2025; Lund et al., 2025).	Kosovo showed limited institutional guidance for ethical AI use (Çerkini et al., 2025; Morina et al., 2025).	Leaders should create clear ethical AI policies.
Teaching and learning	AI increased opportunities for personalized learning and feedback (OECD, 2021; OECD, 2023; UNESCO, 2023; European Commission, 2021; Javari, 2026,).	Students in Kosovo viewed AI positively, but weak training and support reduced its impact (Çerkini et al., 2025; Morina et al., 2025).	Leadership should link AI with pedagogical reform.
International frameworks	International frameworks promoted responsible AI integration through ethics, inclusion, and digital competences (UNESCO, 2023; OECD, 2021; OECD, 2023; European Commission, 2021).	In Kosovo, these frameworks were only partly reflected in institutional practice (Çerkini et al., 2025; Morina et al., 2025).	Leaders should adapt global frameworks locally.
Institutional capacities and infrastructure	Effective AI integration depended on infrastructure, training, policy, and evidence-based decisions (Pesek, 2026; Keržič et al., n.d.; Li et al., 2025; Rodero, 2023; Pokorny, 2026, POLICY, 2024).	Kosovo faced challenges in staff training, infrastructure, and institutional support (Çerkini et al., 2025; Morina et al., 2025).	Leadership should invest in institutional capacity.
Equity, inclusion and sustainability	AI created opportunities for inclusion and sustainability, but also risks of widening inequalities (Ara, 2026; Singh et al., 2025; POLICY, 2024; Liu et al., 2026; Rongkui et al., 2026).	In Kosovo, inclusion potential exists, but structural limits remain (Çerkini et al., 2025; Morina et al., 2025).	Leaders should ensure equitable digital transformation.
Transformational leadership as an institutional response	Transformative leadership was identified as the most suitable response to the AI era (Fullan, 2016; Bollaert, 2025; Sposato, 2025; Kabanda, 2025; Javed & Mujtaba, 2026; Ruffini & Silva, 2025, WHO, 2025).	In Kosovo, this need is increasing because institutional responses remain limited (Çerkini et al., 2025; Morina et al., 2025).	Institutions need transformative leadership aligned with local context.

Transformation of Leadership in Higher Education through AI (RQ1)

The results showed how the role of leadership in higher education has changed from an essentially administrative function to a more strategic, adaptable and ethical position in the context of artificial intelligence and digital transformation. The international literature has underscored the rising expectations that university leaders should drive institutional change, foster innovation, enable pedagogical transformation, and match academic agendas with technology growth. Studies by Alexiadou and EAP (2024), Amiri (2025) and Cecchini et al. (2024) observed that digital revolution changed institutional governance and called for leaders capable of reacting to fast-changing educational contexts. Along the same lines, Bollaert (2025) and Kabanda (2025) claimed that AI integration is not seen anymore as a technology problem but as part of larger institutional strategy and corporate culture.

The findings also demonstrated that leadership in higher education is increasingly associated with strategic planning, ethical governance and institutional adaptability. AI has affected decision-making, academic administration, research development and teaching techniques, thus leaders need to combine innovation with academic excellence and institutional accountability. The research suggested transformational leadership as the most suitable answer for the AI age, compared to conventional leadership approaches focusing mostly on administration, since it promotes institutional adaptability, digital innovation, and sustainable growth.

The change of leadership in Kosovo parallels many of the worldwide patterns highlighted in the international literature, while institutional implementation is more restricted. Local studies have shown that universities in Kosovo are increasingly subjected to changes in teaching and learning brought about by AI, although institutional strategies, governance mechanisms and professional support structures are still evolving. This points to the need for the leadership of Kosovo higher education institutions to be more proactive, strategic and policy-oriented to successfully manage digital transformation and AI integration.

Challenges and Opportunities of AI Integration in Higher Education (RQ2)

The results showed that the introduction of artificial intelligence in higher education brings both great benefits and great institutional problems. International literature has underlined the impact of AI on changing the way of teaching, learning, evaluation, feedback systems, research processes and institutional decision-making. AI-based tools provide personalized learning, flexible educational models, faster academic responses and data-driven governance of institutions. Educational innovation, critical thinking, sustainability consciousness and more flexible learning environments may be supported by AI (Javari, 2026; Liu et al., 2026; Rongkui et al., 2026).

But the results also raised a number of basic issues with ethics, academic integrity, institutional governance and disparities in digital skills despite the promise. The study highlighted certain concerns that occur with the use of AI, such as plagiarism, authorship, openness, justice, and accountability in academic work. Lund et al. (2025), Mumtaz et al. (2025) and Sultana (2025) argued that the higher education institutions need to develop ethical principles and governance frameworks to guide the appropriate usage of AI technology. In addition, a lack of staff training, lack of institutional policy and uneven digital skills are major barriers to effective use of AI.

The findings demonstrated the significance of institutional leadership in controlling the technological, ethical and intellectual balance in the success of AI integration. There are huge opportunities for AI to enhance educational processes and institutional performance, but without governance and institutional preparation, imbalances may be widened and academic integrity jeopardized. Here university leaders have a key role to play in helping to develop sustainable and ethically acceptable approaches to the use of AI in higher education.

Kosovo Context and International Frameworks for AI Integration (RQ3)

The findings indicated that international organisations like UNESCO, OECD and the European Commission have built key frameworks for the appropriate integration of artificial intelligence in education. These frameworks focus on ethics, inclusivity, transparency, digital competencies, institutional accountability and sustainable digital transformation. UNESCO (2023) in particular advocated for a human-centred approach to AI integration while the OECD (2021; 2023) and the European Commission (2021) focused on digital preparedness, inclusive education environments, and long-term institutional development.

Compared to these international frameworks, the Kosovo situation shows an increasing interest in AI integration, but still shows substantial institutional and structural restrictions. Research in Kosovo found that students' views towards AI technology are typically favorable, and the usage of AI tools in academic activities is growing. However, the results also highlighted issues universities continue to confront in terms of infrastructure, professional development, institutional direction and policy execution. AI implementation in Kosovo is more evident on the individual and classroom level than on the institutional governance level (Çerkini et al., 2025; Morina et al., 2025).

A comparison of the international frameworks and the Kosovo reality highlighted a major mismatch between global policy recommendations and the preparedness of local institutions. Although international frameworks provide broad standards for the ethical and sustainable deployment of AI, Kosovo's universities need better institutional support, more clearly articulated governance procedures, more systematic training of personnel, and long-term digital initiatives. The results demonstrate that Kosovo has a tremendous potential to integrate AI in higher education, but to reach alignment with worldwide norms better policy coordination, investment in institutional capacity and more revolutionary leadership approaches are needed. The data suggested that artificial intelligence is transforming leadership, governance, teaching and institutional growth in higher education. The Kosovo context underscores the importance of international frameworks for responsible AI integration, but also the need for clearer institutional policies, more robust governance structures, ongoing professional development, and more strategic leadership to effectively manage the opportunities and challenges of the AI era.

CONCLUSIONS AND RECOMMENDATIONS

This study showed that leadership in higher education in the age of artificial intelligence was transformed from a primarily administrative model to a more strategic, adaptive and ethical approach. The literature highlighted that AI influenced not only teaching and learning, but also institutional governance, organizational culture and strategic decision-making of universities. Likewise, the analysis showed that the international frameworks of UNESCO, OECD and the European Commission provided an important basis for the responsible integration of AI, while the cases studied in Kosovo proved that

the potential of the technology is present, but remains conditioned by institutional capacities, training, infrastructure and academic policies.

From the literature it became clear that artificial intelligence cannot be understood only as a technological innovation, but as a factor that reshapes the very nature of leadership in higher education. In this sense, transformational leadership emerged as an essential condition for the successful management of digital transformation, for maintaining academic integrity and for developing institutions capable of adapting to the demands of the future. Some of the main recommendations that emerge from this literature review are:

- Higher education institutions should formulate clear institutional norms and ethical standards for the use of artificial intelligence in teaching, assessment, research and academic administration, in line with the frameworks of UNESCO, the OECD and the European Commission.
Higher education institutions should implement continuous AI literacy and professional development programmes for academic staff and students to improve digital competencies and foster responsible use of AI in higher education.
- University administrators should make long-term strategies for digital transformation that combine artificial intelligence with academic quality assurance, institutional governance, inclusiveness and sustainable development objectives.
- In Kosovo, the creation of a national framework for the integration of AI in higher education implies cooperation among universities, policy makers and regulatory agencies. This includes rules for governance, ethics, quality assurance and institutional capacity building.
- HEIs need to invest in digital infrastructure, institutional support systems and AI governance mechanisms to enable the fair and sustainable application of artificial intelligence technology.–
- Future research should involve empirical investigation with university leaders, academic staff, students and policy makers to better understand institutional practices, ethical difficulties and long-term impact of AI integration in higher education.

Limitations of the study

The present research has certain drawbacks. First, the study was conducted only on the basis of a literature review method and no actual data collecting was undertaken via interviews, surveys or case studies at higher education institutions. Second, the literature on artificial intelligence and leadership in higher education in Kosovo is still scarce. This increased the dependence on foreign research and policy frameworks. Third, artificial intelligence is changing fast, therefore institutional practices, regulations and technology breakthroughs may alter considerably over time. Despite its limits the research offers a significant comparative perspective on leadership and AI integration in higher education in both international and Kosovo setting.

Future research directions

Future research should not be limited to literature-based evaluations but also include empirical investigations involving university leaders, academic staff, students and policy makers. Comparative

study with other Western Balkan countries can provide new insights into institutional preparedness and AI governance practices in Kosovo. Further studies may include ethical guidelines for AI use, assessment methods based on AI, and the long-term impact of AI on the governance and expansion of higher education institutions.

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