The Eurasia Proceedings of
Educational & Social Sciences (EPESS)
ISSN: 2587-1730

The Eurasia Proceedings of Educational and Social Sciences (EPESS), 2025

Volume 41, Pages 134-142

ICETI 2025: International Conference on Education in Technology and Innovation

Social Responsibility for Implementing Artificial Intelligence in Education

Viorelia Lungu
Technical University of Moldova

Natalia Tabur
Ion Creanga" State Pedagogical University of Chisinau

Mariana Batog
Ion Creanga" State Pedagogical University of Chisinau

Abstract: The 21st century is marked by technological development that is increasingly taking place in various fields, including education. This situation proves that through the implementation of Artificial Intelligence (AI) society is developing, with a profound and dynamic impact. But also, effects highlight the negative impact on society, the environment, ecosystems, and human beings. The study notes the global trend of implementing AI in education and emphasizes the challenges mentioned above. The analysis of the experience of leading countries in implementing AI in education, which serves as an example for countries in the implementation process, underscores the same challenges and identifies the benefits. At the same time, the analysis of previous studies reveals different perspectives from educators, students, and parents regarding the impact of AI on education, emphasizing the need for social responsibility. In the academic context, responsibility refers to the commitment of educational institutions to ensure the quality of the educational process and the transparency of the activities carried out through the education and safety of AI users. The study offers solutions to these challenges, such as the rational and responsible use of AI in the educational process, and to update digital skills through continuous training. In this regard, educational policies affirm the necessity of a legal framework for new digital technologies, including AI, and emphasize the importance of developing digital skills. It was concluded that AI must be integrated into education. However, this must be done to revolutionize learning methodologies and adapt to the constantly evolving needs of students, developing digital skills for all those involved in the educational process, guaranteeing moral responsibility, relatively distributing the obligations of each entity for the implementation of AI in education, among innovators, educators, and society.

Keywords: Artificial intelligence, Digital skills, Responsibility

Introduction

With the development of information technologies, the implementation of Artificial Intelligence (AI) in education is increasingly observed, explained as "an important part of the digital transformation process, representing any form of knowledge or information that does not come from humans, but from the intelligence that comes from machines, which have the ability to imitate human functions, such as thinking, learning, planning" (Sendrea, 2022).

The implementation of AI in various fields such as economics (Ioan-Frank & Gaf-Deac, 2024), business (Lesan & Prodan, 2024), medicine (Pisarenco & Psarenco, 2024), ecology (Strubell, et. al., 2017), agriculture (Medici, et.al., 2024; Stamatescu, 2019), tourism (Turcu & Turcu, 2017), presents, on the one hand, the positive effects of digitalization, for example, "make agriculture progress toward sustainability and resilience", or "offers the

- This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

- Selection and peer-review under responsibility of the Organizing Committee of the Conference

© 2025 Published by ISRES Publishing: www.isres.org

possibility to investigate the mitigation of environmental impacts" (Medici et. al., 2024), and on the other hand, challenges are mentioned from the perspective of "concerns about cybersecurity, privacy protection, and ethical issues (Pisarenco & Psarenco, 2024); it leads to the disappearance of some jobs, affecting the unemployment situation (Lesan & Prodan, 2024) has negative effects on health (Cordero, 2024), etc.

These aspects are also confirmed by the appearance of works focused on the ethics of AI and Robotics with questions regarding "whether superintelligence may lead to the extinction of the human species, which is called an "existential risk" (or XRisk)" (Muller & Vincent, 2023). An important aspect in this sense is reflected by G. Hinton, from the University of Toronto, who states that humans would be like small children compared to the intelligence of very powerful AI systems, but AI can also be loosely defined as computer systems that perform tasks that typically require human intelligence (The Guardian, Dec. 27, 2024).

According to researchers Brynjolfsson and McAfee (2017), "the effects of AI will be magnified in the coming decade, as manufacturing, retailing, transportation, finance, health care, law, advertising, insurance, entertainment, education, and virtually every other industry transforms their core processes and business models to take advantage of machine learning. The bottleneck now is in management, implementation, and business imagination". At the same time, Brynjolfsson and McAfee (2017) highlight risks such as: may have hidden biases, derived not from any intent of the designer but from the data provided to train the system. Neural network systems operate based on statistical truths rather than literal truths. which leads to a lack of verifiability in mission-critical applications, such as controlling a nuclear power plant, or when life-or-death decisions are involved. As a result, diagnosing and correcting exactly what's going wrong can be challenging.

At this point, sufficient information has been accumulated about the implementation of AI in education as example „the integration of ChatGPT to transform teaching and learning dynamics" (Nguyen et al., 2024), or..„develop and evaluate a digital-based archive management model for a quality assurance system in elementary schools" (Nasution et al., 2025). Nevertheless, the fear among parents regarding the negative consequences of AI on individuals, coupled with the insufficient training, as well as the insufficient training of teachers to use various tools offered by AI, with little attention to the specific contexts of digital education, highlights the disadvantages. The implementation of AI supports the countries in integrating into the European digital space, with aspirations to ensure a safe and inclusive digital environment, ready for a modern and prosperous future. This study analyzes what has already been done regarding the implementation of AI in the Republic of Moldova, detects possible challenges and suggests strategies to fill the existing gaps.

The *purpose of this study* is to explore the role of accountability in the implementation of AI in the education system of the Republic of Moldova and to propose effective methodologies for incorporating various tools offered by AI into educational practices and teaching. This modernization has facilitated the country's alignment with EU policy and practice. However, the results of Moldovan students, as well as teachers lag behind the European average, which means that there is still much to be done to integrate the country into the Western philosophical and educational space. In particular, the country needs to reconsider its current approach to implementing AI in education.

Method

The research objectives were achieved through theoretical analysis of the problem with reference to the responsibility of implementing AI in education. The search in these databases was carried out using the following keywords and phrases: "responsibility", "Artificial Intelligence", "digital competence", "education", "education system". The search was further narrowed by applying the inclusion criteria of recency, relevance, reliability and credibility. In addition to the mentioned criteria, only full-text sources were eligible for further analysis.

As part of the research process, the study examined the essence of the responsibility of implementing AI in education for the educational system of the lead country in AI and of the Republic of Moldova and Romania, as neighboring countries but also similar in culture, which will lead to the intensification of the use of AI by both educators and students. The comparative analysis helped identify opinions regarding the advantages and disadvantages of implementing AI in human life in general and education in particular, which remain relevant in different contexts, including educational ones.

Awareness of the positive and negative consequences of implementing AI in education guided a detailed comparative analysis of their integration into high school curricula in different countries. This analysis focused

on a set of Western countries, aiming to identify the benefits of implementing AI in education and uncover the challenges to their effective implementation in the national education system. To achieve this, the study carefully examined secondary data to identify specific barriers, including insufficient knowledge of the types of techniques, lack of educational resources, and resistance from key stakeholders, such as AI designers, legislators, educators, students, and parents. Contextual factors unique to the Republic of Moldova, such as socio-cultural attitudes, historical influences, and the structure of the current education system, were also taken into consideration. This comprehensive approach allowed for a nuanced understanding of the challenges in implementing AI in the Moldovan education system.

In response to the identified drawbacks of implementing AI in education, the study proposed practical strategies, such as using AI in the rational and responsible educational process, developing continuous digital skills to apply AI in various learning experiences and security strategies to achieve expected results, and encouraging stakeholder collaboration through responsible decision-making in this regard. These strategies were designed to address the unique challenges of the educational context in the Republic of Moldova, while aligning with effective practices observed internationally.

Results and Discussion

The analysis of the specialized literature highlights the applicability of AI in education at a global level, the vision of educators, students, but also parents with reference to this aspect. All of them emphasized the need for social responsibility from the perspective of creators of technological innovations, legislators, educational institutions and society, highlighting both the advantages and disadvantages of implementing AI in education.

Applicability of AI at a Global Level

According to the studies analyzed, AI is increasingly being used in education at a global level. For instance, China is making extensive use of AI integration in education, where learning is facilitated by the “most advanced learning technology in the world with the effect of identifying and safely addressing gaps in the learning process” (Squirrel AI Learning, 2025), by trying tutoring services in mathematics learning (Hao, 2019). Another example is South Korea which, through the use of platforms like QANDA, uses AI to assist students in solving mathematical problems. AI capabilities have set new benchmarks in mathematical performance assessments (QANDA, 2025).

In India, AI implementation in education has been achieved through innovations like the Shalu Robot, a humanoid robot capable of teaching multiple subjects in 9 Indian dialects and 38 foreign languages (Gupta, 2021). Shalu has been integrated into the curriculum, to get answers to simple math questions and equations, exemplifying AI's potential to enhance classroom learning and address teacher shortages (Mukane, 2021). The United States presents using ChatGPT in education, to help students’ complete various tasks such as brainstorming essay topics and organizing ideas. The goal of introducing AI in education is to reduce student stress and increase creativity, at the same time, educators are focused on ways to integrate AI responsibly, to "wake up" to both the risks and rewards of the technology within the next two years (Perkel, 2025). The United Kingdom is using AI in education to enhance students’ learning experiences by generating images from students’ descriptive writing, stimulating discussion and creativity, creating virtual interactions with historical figures, and deepening engagement in the curriculum. Students are informed about the benefits and challenges of AI, encouraging responsible use (The Guardian, 2024). These examples illustrate that as societies develop, diverse applications of AI in education across different countries, highlight its potential to personalize learning, improve engagement, and streamline educational processes.

Analyzing the AI implementation model in Ghina, educators note that “intelligent technologies may be capable of teaching skills that are easily quantifiable, such as middle-school mathematics, we do not know whether they can teach more complex, soft skills such as creativity, critical thinking, and collaboration. Intelligent technologies are useful for the rapid acquisition of knowledge. Significant issues have been raised in China schools, about student privacy and data ethics in Chinese schools. The use of facial recognition cameras to monitor students' concentration and emotional states leads to potential misuse of personal data and ongoing surveillance” (Liu, 2020). The author argues that these questions refer “not only to the Chinese education system but should also be of concern to educators and policymakers in Europe as AI begins to make rapid inroads into education to fill a gap in these uncertain times”.

In the European Union, a report by the European Parliament highlights that the potential impact of AI on education is significant but rarely discussed in depth. Teachers recognize the opportunities offered by AI for personalizing learning but also express concerns about the ethics of use and the need for adequate training to integrate these technologies effectively (European Parliament, 2021). In Romania, educators recognize that "ChatGPT (and similar ones) now represent a tool. which is not good or bad in itself but can become so depending on who uses it. In this sense, it is argued that "students understand less and less, if they do not make a substantial effort to get out of the trap of easy access to information", at the same time, it is mentioned that "we cannot avoid the adoption of AI tools in the educational process". Finally, the Minister of Education as well as many university professors are exposed to the large-scale experimentation of AI in education but respecting the ethical and deontological principles of the field, should be an aid in the educational act, not a replacement. (Șuțu, 2024). At the same time, Castro et al. (2025), emphasize that "a lack of professional development programs tailored to the needs of educators further exacerbates the challenges associated with implementation". The analysis of the experience of leading countries in implementing AI in education serves as an example for countries that are in the process of implementation, identifying the benefits, but highlighting the same challenges. Students in countries with advanced technological infrastructure are showing increased interest in using AI to improve their learning experience. Applications such as ChatGPT, Gemini or Copilot are already being used by students and pupils to achieve better performance in various subjects. For example, Khanmigo, a chatbot created for students in the United States, helps them achieve better results in mathematics.

The Digi24 debate raised the question of whether in Romania the use of ChatGPT should be restricted or integrated into the educational process. Various statements were made from the positive ones: accessibility, homework assistance, assistance for educators, personalization of learning, to the negative ones: it encourages copying and plagiarism; ChatGPTs fail to respond, unlike human educators, to the student's complex human emotions, inaccurate information, the need for rigorous supervision, lack of multitasking ability, etc. (Suțu, 2024).

Parents in countries leading the way in implementing AI in education have mixed views. On the one hand, they appreciate the opportunities for personalized learning and access to advanced educational resources that AI offers. On the other hand, there are concerns about children's data privacy and overreliance on technology. Parents Concerns include children's overexposure to digital devices, potential negative effects on brain development, and the risk of misinformation (Davies & Jung-a, 2024). In which the Romanian Minister of Education Daniel David claims that "the widespread adoption of ChatGPT, in a clearly defined ethical context". In the Republic of Moldova, four instrumental directions of AI use are proposed (Maftei, 2024). Artificial intelligence tools – chatbot: Chat GPT, Microsoft Bing, Gemini, Claude AI, Meta Lama 2, Khanmigo, Pi, ZenoChat, Character.ai, Jasper Chat, HuggingChat, Tabnine, Chatsonic, Perplexity AI, Poe, ChatSpot, YouChat, Grok.

Artificial intelligence tools – image generation and editing, video, voice: InVideo&InVideo AI, DALL-E 2, BHuman, Steve AI, Quickvid, Magic Studio Apps, Fotor Image Generator, Lensa AI, Designs.AI, D-ID, Descript, Visual ChatGPT/ TaskMatrix, DeepAI Image Generator, Pictory.ai, Moovly, Kaiber, Whisper, penAI, Midjourney, RunwayML. Artificial intelligence tools that provide for the identification of texts generated with AI tools: AI Content Detector, GPT-2 Output Detector, AI Content Detector, Writer, GPTZero, AI Writing Check, Contentdetector.AI, Originality.ai, Crossplag, GLTR (glitter) v0.5, Turnitin. Artificial intelligence tools - distance and assisted learning activities: eTwinning, WAND.education, Kinderpedia, MyKoolio, Eduboom, DigitalEdu, Digitaliada, Edus, Grammarly, BitBenefit, Duolingo, Adservio, ASQ, iTeach, Tactile Images, Teaching with Europeana, Otter.ai, Mondly, SEG course for teachers, MOOCs, MathGPTPro, Coursera, Knewton, Gradescope.

At the same time, the authors Vulpe, Simona-Nicoleta, Rughiniș, Răzvan Victor, Tsurcanu, D., Rosner, Daniel. (2024) analyze various sources regarding "AI and cybersecurity issues", emphasizing the aspect related to the fact that "the changes in the existing value system, in the attitude of contemporary man towards the social role he fulfills in the conditions of new societal challenges, by relating to the concept of social responsibility as ethical behavior, contribute to the development of a sustainable society" (Lazariuc, 2022).

Social Responsibility

Those who draw attention to the implementation of AI in education are parents who want schools to provide guidance and support in the responsible use of these technologies. The fact that AI can imitate human functions and others, Led UNESCO to emphasize the need to develop recommendations on AI ethics "recognizing the

profound and dynamic positive but also the negative impact of artificial intelligence on societies, the environment, ecosystems, and human lives, including on the human mind, in part because of the new ways in which its use influences human thinking, interaction, and decision-making and has an impact on education, human, social and natural sciences, culture, communication, and information, as a result, this Recommendation on the ethics of artificial intelligence is adopted" (apud Șendrea, 2023).

In the academic context, responsibility refers to the commitment of educational institutions to society, involving ensuring the quality of the educational process and transparency in the activities carried out. An example in this sense is the guide Ethics and Academic Integrity, of the University of Bucharest, which explains that "responsibility is linked to a certain dose of decisional autonomy (I am responsible for X, because I chose to do X, although I could have done Y or Z...). If we resort to an extremely restrictive standard (such as "an autonomous choice, is one free from any kind of influence"), we may, in practice, cancel the possibility of autonomy for most typical situations" (Socaciu, et al., 2018), underscoring the importance of institutional responsibility in maintaining academic standards.

Academic responsibility can significantly aid in the development of the skills and knowledge indispensable in a globalized society. "We cannot put a flower in a pot without the awareness that somewhere, somehow, we then influence the entire history of humanity, becoming responsible for everything that will follow for us and others" (Cuțitaru, 2013). An example of social responsibility of European universities is highlighted in the Handbook of Good Practices, which aims to provide a set of common practice tools for European universities. It focuses on examples that address social responsibility and interactions between the university and local communities, fostering cooperation with the community outside the university, but also with students practicing socially responsible actions. The content of this handbook focuses on the following "research, teaching and learning from a social point of view; Socially responsible university governance" etc. (Resch, 2016), provides perspectives and strategies for implementing the principles of social responsibility in higher education institutions.

In this context, there is a need to develop digital competence. Thus, the DigComp 2.2 Reference Framework proposes the definition of digital competence as "the confident, critical and responsible use of and engagement with digital technologies for learning, at work and for participation in society. This includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital wellbeing and cybersecurity skills), intellectual property issues, problem-solving and critical thinking" (DigComp). At the same time, the same source presents five main areas of competence, namely: Information and data literacy; Communication and collaboration; Safety, and Problem-solving, which are explained from the perspective that Areas 1, 2, and 3 (Literacy..., Communication, Content creation...) refer to skills that can be attributed to specific activities and uses. Domains 4 and 5 (security and problem-solving) are "transversal", which means that they apply to any type of activity carried out through digital means. It is important to note that the elements corresponding to the domain (Problem-Solving) are found in all competencies, but it was defined as a specific domain, primarily, to highlight the importance of this aspect concerning the acquisition of technology and digital practices (DigComp). Analyzing the studies of researchers in the domains, we concluded that there are various definitions of digital competencies and several terms, such as "digital literacy skills" (Ng, 2012) and "computer literacy" (UNESCO), "digital competence" (Spante et al., 2018), "ICT-related competencies (Ng, 2012), often used as synonyms.

Entities Responsible for Implementing AI in Education

In accordance with the use of terms but also regarding the implementation of AI both in various fields and in education, various Strategies, and educational policies have been developed to regulate these aspects. Thus, the concepts of regulation at the state level have developed the Digital Transformation Strategy of the Republic of Moldova for the years 2023-2030, which mentions ensuring a safe digital environment and includes, making Moldova a modern and prosperous digital nation, prepared for the challenges of the future (Digital Strategy of Moldova, 2023).

If we look at this perspective, in the National Strategy for the development and support of Digitalization through the Digital Innovation Centers of Romania 2024-2027, it is mentioned "the objective to support industry and public rights in taking the necessary steps to transform digitally and to be prepared to face the new digital economy". (Digitalization Strategy of Romania, 2024)

We note that both Strategies are focused on development through digitalization, an important aspect in this sense of the objective of developing digital skills, which is achieved in educational institutions or the workplace but is achieved by people who have the necessary training. An issue that needs to be analyzed refers to the ethical aspect - philosophical science that studies morality as one of the most important aspects of human and social existence (Lungu, 2025) and the accountability of entities over the implementation of AI in education, from the perspective of:

Regulatory authorities such as the Government, the Ministry, Agency - have the role of establishing policies and regulations that ensure the accountability of AI in education, protecting the rights and interests of all parties involved (pedagogues, pupils/students, parents, etc.). Technology developers should create AI systems that comply with ethical standards and protect the confidentiality of user data.

Educational institutions are responsible for integrating AI technologies in a way that benefits all, ensuring equitable access and adequate training for teaching staff. Teachers need to be trained to use AI-based tools effectively and ethically, adapting them to the individual needs of the learner. Collaboration between these entities is essential to ensure responsible and effective implementation of artificial intelligence in education. In general, to be an effective outcome from an accountability perspective, it is appropriate for all of the above-mentioned institutions to be competent in analyzing the ethical implications of using AI in the educational environment, including concerns related to data privacy and equity of access to technology.

Currently, “the acceptance of AI in education is a nuanced and multifaceted issue, requiring careful analysis of specific AI applications and their characteristics, in addition to the perceptions of various stakeholders” (Karran, 2024). Self-awareness of achievements and “critical relevance for agenda-setting for human-centered AI and educational innovation” (Porayska 2024) can provide remarkable outcomes for learners. At the same time, AI researchers argue that implementing AI in education should be done with the help of tutors. Research highlights that “empathetic AI tutors should be treated with caution, as they use students’ feelings and emotions to somehow manipulate the learner. It is no coincidence that the AI Law classifies such AI systems as high-risk, therefore requiring third-party certification (Groza, 2023).

Reinforcing the above, we believe that the need for digital literacy should be noted, aspects also highlighted by researchers from Indonesia, who highlight that “in order to fully capitalize on digital resources, students must possess digital literacy” (Kholifah, 2024), and that teachers and curriculum developers must provide “transparency of design and verification of the accuracy of results, emphasizing the need to update the curriculum and adapt to new social norms with the implications of generative AI in education, addressing the challenges related to the effective implementation of educational tools” (Łodzikowski, 2024). According to the Education Code of the Republic of Moldova (2014), digital competence is highlighted as one of the significant key competences of art. 11 on Educational Purposes. When students are naturally interested in technology, educators must adapt and use these technologies to improve the learning process and increase student performance. Therefore, ICT competence is essential for educators in the 21st century.

In general, “for the effective use of digital technologies in teaching, teachers are expected to initially apply their knowledge and skills” (Cebi, 2022) in this process, but also responsibility. Thus, "the role of the teacher in the era of digital education is defined by rethinking the objectives of the teaching-learning-evaluation approach and by arguing the need to re-evaluate the entire spectrum of educational relationships, viewed in consonance with the values cultivated by today's society" (Antoci, 2021). Or as D. Martin highlights "doing something responsibly means doing something with due care and attention and can be contrasted with irresponsible actions, actions that could lead to some kind of error or problem" (Martin, 2007).

In this sense, everyone has to analyze certain risks of actions that materialize - simply because all our actions impose risks on others as well as on ourselves. In this situation, retroactive responsibility is justified by reference to prospective responsibilities. The connection between prospective and retrospective responsibility depends on the fact that people often disagree about what they should do - that is, about people's future responsibilities.

Although, Strobierscki (2021), mentions that "corporate social responsibility reflects four categories: environmental, philanthropic, ethical and economic responsibility, providing perspectives on how the enterprise can integrate into their operations". It could be argued that many of our moral disagreements are brought to light when those involved in disputes and responses are appropriate. This situation reflects different views on future (Lungu & Silistraru, 2021) responsibilities and will lead to very different points of views on how retroactive responsibility should be assigned.

Conclusion

With the technological development that occupies more and more areas in various fields, including education, both the positive and negative impacts are accentuated. The implementation of AI in education is carried out globally and highlights the same challenges, but also identifies benefits, a situation mentioned by different visions of educators, students and parents, emphasizing the need for social responsibility and training in digital competence for both educators and students. Digital competence is applied in key skills of the 21st century. The process of developing digital competence in teachers and students is carried out efficiently by motivating them to develop digital competence, ensuring literacy and information, capitalizing on digital tools in professional activity, and the security of using AI in education.

At the same time, the responsibility for implementing AI in education must be guided by moral strength. This stems from the fact that we might bear the blame for insignificant errors or be responsible for relatively harmless tasks. Simultaneously, it is essential to raise awareness of the consequences of AI implementation in education, which involves understanding both the positive and negative outcomes. Such a responsible attitude towards the human future is dependent on decisions of what is right or wrong or the relative distribution of obligations of each entity responsible for implementing AI in education, between and among innovators, educators and students, governments and society. In final consideration, artificial intelligence must be applied and capitalized on in education to guarantee the responsibility and ethical behavior of those involved in the educational process.

Recommendations

Use AI in the rational and responsible educational process. Update digital skills by participating in continuous training courses. Apply AI in various learning experiences, optimally combined with classic teaching technologies, to achieve outstanding results. Update security strategies to be protected in the online environment. Encourage stakeholder collaboration by making responsible decisions regarding the implementation of AI in education.

Scientific Ethics Declaration

* The authors declare that the scientific ethical and legal responsibility of this article published in EPESS Journal belongs to the authors.

Conflict of Interest

* The authors declare that they have no conflicts of interest

Funding

* The authors received no financial support for the research, authorship, and/or publication of this article.

Acknowledgements or Notes

* This article was presented as an oral presentation at the International Conference on Education in Technology and Innovation (www.iceti.net) held in Trabzon/Türkiye on May 01-04, 2025

References

Antoci, L. (2021). Paradigme noi ale școlii contemporane(new paradigms of contemporary schooling). In *Digitalizare si Inovaţie - noi abordări pedagogice privind desfășurarea activităților de predare-învățare-evaluare, exemple de bune practici*. Iasi: Spiruharet

Barrera Castro, G. P., Chiappe, A., Ramírez-Montoya, M. S., & Alcántar Nieblas, C. (2025). Key barriers to personalized learning in times of artificial intelligence: A literature review. *Applied Sciences*, *15*(6), 3103.

Brynjolfsson, E., & McAfee, A. (2017). Brynjolfsson, E., & Mcafee, A. (2017). The business of artificial intelligence. *Harvard Business Review*, *7*(1), 1-2.

Cebi, A., Ozdemir, T. B., Reisoglu, I., & Colak, C. (2022). From digital competences to technology integration: Re-formation of pre-service teachers' knowledge and understanding. *International Journal of Educational Research*, *113*, 101965.

Cordero D. (2024). The downsides of artificial intelligence in healthcare. *The Korean Journal of Pain*, *37,* 87-88.

Cuțitaru, C. L. (2013). Responsabilitatea academică. In *Dilema veche* (p.494).

Davies, C., & Jung-a, S. (2024, August 18). *South Korea's plan for AI textbooks hit by backlash from parents*. Retrieved from https://www.ft.com

Digital Stratetgy of Moldova. (2023).Strategia de transformare digitală a republicii Moldova pentru anii 2023-2030.

Digital Stratetgy of Moldova. (2024). Strategia națională pentru dezvoltarea și susținerea digitalizării prin intermediul centrelor de inovare digitală din România 2024-2027.

Gorea, A. (2023). *Competența digitală, competența secolului XXI pentru educație și societate*. Retrieved from https://edict.ro/

Groza, A., & Marginean, A. (2023). *Brave new world: Artificial intelligence in teaching and learning*. *arXivpreprint arXiv*:2310.06856.

Gupta,K. (2021). *Mumbai teacher develops robot which speaks 9 Indian, 38 foreign languages*. Retrieved from https://www.mid-day.com/

Hao, K. (2019, August 2). *China has started a grand experiment in AI education. It could reshape how the world learns*. Retrieved from https://www.technologyreview.com

Ioan-Franc, V.,& Gâf-Deac, I.I., (2024). Participation of artificial intelligence in economic growth in Romania. *Amfiteatru Economic*, *26*(67), 944-956.

Karran, A. J., Charland, P., Martineau, J. T., De Arana, A., Lesage, A. M., Senecal, S., & Leger, P. M. (2024). Multi-stakeholder perspective on responsible artificial intelligence and acceptability in education. *arXiv preprint arXiv*:2402.15027.

Kholifah, N., Nurtanto, M., Mutohhari, F., Majid, N. W. A. & Fawaid, M. (2024). The role of digital technology competency and psychological capital in vocational education students: The mediating role of entrepreneurial self-efficacy. *Journal of Technical Education and Training*, *16*(3), 238-250.

Lazariuc, C. (2022). Relația mentalitate colectivă – responsabilitate socială în condițiile noilor provocări societale. In:*Cercetarea, dezvoltarea și inovarea din perspectiva eticii* globale (3th ed., pp. 183-196). , Chișinău: Tehnica-UTM.

Lesan, O., Prodan, I. (2023). Rolul utilizării inteligenței artificiale în dezvoltarea afacerilor. In *Sesiune națională cu participare internațională de comunicări științifice studențești* (27th ed., pp. 168-169). Chișinău, Republica Moldova: Centrul Editorial-Poligrafic al Universității de Stat din Moldova.

Liu, Y. L. (2020, May 18). *The future of the classroom? China's experience of AI in education*. Retrieved from https://www.nesta.org.uk/report/the-future-of-the-classroom/

Łodzikowski K., Foltz P. W., Behrens J. T. (2024). Generative AI and its educational implications In: *Trust and Inclusion in AI-Mediated Education: Where human learning meets learning machines* (pp. 35-57). Cham: Springer Nature Switzerland.

Lungu, V., Cretu, L., Munteanu, T., & Sadovei, L. (2025). The place of social and moral values in the high school curriculum from the Republic of Moldova. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, *9*(1), 87–103.

Lungu, V., Silistraru, N. (2021). Conceptual approaches of prospective pedagogy. *International Journal of Emerging Technologies in Learning, 18*(16), 69-84.

Mafei, V. (2024). Inteligența artificială în educație între determinarea politicilor și dezvoltarea competențelor. *Conferința Tehnico-Științifică a Studenților, Masteranzilor și Doctoranzilor, 4,* 2466-2473.

Martin, D. (2007). Responsibility: A philosophical perspective. In G. *Dewsbury* & J. Dobson (Eds.), *Responsibility and dependable* systems. London: Springer.

Medici, M., Pedersen, S. M., Canavari, M., Anken, T., Stamatelopoulos, P., Tsiropoulos, Z., ... & Tohidloo, G. (2021). A web-tool for calculating the economic performance of precision agriculture technology. *Computers and Electronics in Agriculture*, *181*, 105930.

Mukane, P. (2021). *Meet Shalu , a humanoid robot prototype developed by a computer science teacher in Mumbai*. Retrieved from https://mumbaimirror.indiatimes.com/

Muller, V. C. (2020, April 30). *Ethics of artificial intelligence and robotics*. Retrieved from https://plato.stanford.edu/

Nasution, S. D. K., Karnati, N., & Rugaiyah, R. (2025). School administration transformation: improving the performance of principals, administrators, and science teachers with a management information system (SIMA) *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, *9*(1), 36–52.

Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education*, *59*(3), 1065–1078.

Nguyen, T. N. T., Lai, N. V.,& Nguyen, Q. T. (2024). Artificial intelligence(ai) in education: A case study on ChatGPT'sInfluence on student learning behaviors. *Educational Process*: *International Journal*, *13*(2), 105-121

Perkel, S. (2025). *The ceo of anthropic thinks it may be impossible to warn people about the risks of AI — but he's still going to try*. Retrieved from https://www.businessinsider.com/

Pisarenco, C., & Pisarenco, S. (2024). Digitalisation of health data: Impact on patient-centredness and safety. *Bulletin of the Academy of Sciences of Moldova Medical Sciences, 3*(80), 139-143.

Porayska-Pomsta, K. (2024). A manifesto for a pro-actively responsible AI in education. *International Journal of Artificial Intelligence in Education*, *34*(1), 73-83.

Resch, K., Fritz, J.,...& Uras, F. (2016). *Responsabilitatea socială a universităţilor.* (RSU): Manual de bune practici.

Sendrea, M. (2022). Digitalizarea și inteligența artificială: aplicare, necesitate, efecte. In: *Strategii și politici de management în economia contemporană* (7th ed., pp. 353-358). Chișinău: ASEM

Sendrea, M. (2023). Inteligența artificială din perspectivă etică. In *Strategii și politici de management în economia contemporană* (8th ed., pp. 224-228)., Chişinău: ASEM, Ediţia 8, pp. 224-228.

Socaciu, E., Vică, C.,... & Mihailor, E.. (2018). *Etică și integritate academică*. Univeristății din București.

Spante, M., Hashemi, S. S., Lundin, M., & Algers, A. (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. *Cogent Education, 5*(1), 1519143.

Squirrel Ai Learning (2025). *The future of learning is here*. Retrieved from https://squirrelai.com/

Stamatescu, G., Drăgana, C., Stamatescu, I., Ichim, L., & Popescu, D. (2019, July). Iot-enabled distributed data processing for precision agriculture. In *2019 27th Mediterranean Conference on Control and Automation* (MED) (pp. 286-291). IEEE.

Stobierski, T. (2021, April 8). *What is corporate social responsibility?* Retrieved from https://online.hbs.edu/blog/post/types-of-corporate-social-responsibility

Strubell, E., Ganesh, A., & McCallum, A. (2019). Energy and policy considerations for deep learning in NLP. *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, 3645–3650.

Șuțu, C. (2024, January 29). *Dezbatere Digi24.ro. Ar trebui interzis ChatGPT în școli? Plagiat sau instrument util?* Retrieved from https://www.digi24.ro/

The Guardian. (2024, December 27). *'Godfather of AI' shortens odds of the technology wiping out humanity over next 30 years.* Retrieved from https://www.theguardian.com/technology/2024/dec/27/godfather-of-ai-raises-odds-of-the-technology-wiping-out-humanity-over-next-30-years

Turcu, C., & Turcu, C. (2017). Applying artificial intelligence and internet techniques in rural tourism domain. *arXiv preprint arXiv*:1705.09838.

Vulpe, S. N., Rughinis, Răzvan, V., Tsurcanu, D., & Rosner, D. (2024). AI and cybersecurity: a risk society perspective. *Frontiers in Computer Science*, *6*, 1-11.

Author(s) Information

Viorelia Lungu
Technical University of Moldova
168, Ștefan cel Mare bd, Chișinău, Moldova
Contact e-mail: *viorelia.lungu@ssu.utm.md*

Natalia Tabur
Ion Creanga" State Pedagogical University
1, Ion Creangă, Chișinău, Moldova

Mariana Batog
Ion Creanga" State Pedagogical University
1, Ion Creangă, Chișinău, Moldova

To cite this article:

Lungu, V., Tabur, N., & Batog, M. (2025). Social responsibility for implementing artificial intelligence in education. *The Eurasia Proceedings of Educational and Social Sciences (EPESS), 41,* 134-142.