

The Artificial Intelligence (AI) approaches in university education and education sciences' scientific research

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Abstract: *This study examines the integration of Artificial Intelligence (AI) and Generative Artificial Intelligence (GAI) in higher education and scientific research, with a particular focus on a comparison between Finland, Romania, and the Republic of Moldova. In this context, the paper examines the degree of adoption of AI/GAI in education and research, identifying existing gaps and potential areas for growth in these countries. The analysis is based on case studies, international reports (DESI), and relevant national and institutional policies. The findings indicate that Finland, a leader in the integration of AI/GAI, has developed national and institutional policies. In contrast, Romania and the Republic of Moldova have yet to implement them cohesively. However, in Romania and the Republic of Moldova, we attest to initiatives at national, local, and institutional levels that are yet to be supported by a coherent legislative framework. The results of the study prove the existence of a consensus among governmental, economic, and academic actors on the importance of creating a favorable digital ecosystem. However, there are still significant challenges in implementing a comprehensive and sustainable framework for the use of AI/GAI in higher education and research. These findings provide a foundation for future research on the presence of AI/GAI in education and research, with implications for educational sciences and engineering sciences as well as broader fields.*

Keywords: Education, Research, Academia, Artificial Intelligence (AI), Finland, Romania, Republic of Moldova.

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