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Abstract: According to the latest AI index report*, the number of AI research papers has grown more than sevenfold in the last 20 years, reaching over 600,000 (Scopus indexed) publications in 2020. To transfer the results of this massive volume of research to practice, the new knowledge needs to be summarized, classified, and organized in a way that is suitable and useful for practitioners. Systematic literature reviews (SLRs) provide an effective way of structuring large volumes of knowledge and supporting evidence-based practice. According to the same report, education is one of the sectors experiencing the highest growth in AI research in recent years. An initial search for SLRs in the Scopus database shows that there are more than 30,000 publications on different AI applications, including intelligent tutors (chatbots), predictive analytics, adaptive testing, and learning content recommenders, employed at different educational levels. Nearly 500 of these articles are systematic literature reviews. Such a volume of research and consequent SLRs calls for the introduction of higher levels of hierarchy in the knowledge representation in the form of 'tertiary studies' or 'reviews of reviews'.

This presentation provides an overview of preliminary results of the tertiary review study on the use of AI in the educational sector (AIEd). The search was expanded beyond Scopus to include other relevant bibliographical databases such as, ACM, IEEE Xplore, and EBSCO. The study aims to address the following research questions: (i) What research areas, topics, AI applications, and educational levels are being addressed in AIEd? (ii) What are the drivers and barriers to the adoption of AIEd? (iii) What recommendations are made for future research in AIEd? (iv) What progress has been achieved with respect to prior recommendations on AIEd? The findings of this research would be of interest to educators, researchers, AI application providers, education managers, and policymakers.

*The AI Index 2019 Annual Report. AI Index Steering Committee, Human-Centered AI Institute, Stanford University, Stanford, CA.