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CHALLENGES OF DIGITAL EDUCATION DEVELOPMENT AT LAW ENFORCEMENT TRAINING INSTITUTIONS

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Abstract. *With the ongoing progress of digital education opportunities, recently the buzz of artificial intelligence law enforcement education processes also requires identification and analysis of evolving phenomena. In order to ensure a safe up-to-date, highly efficient training process law enforcement officials involved in education process need to be competent with current education trends as well as be able to establish future visionary self-developments, be able for timely adaptation and constant exchange of best practices. The main goal of the article is to identify, analyse and summarizes latest EU scale digital education development visions and research results in context of digital learning, artificial intelligence, possible problems, risks and concerns regarding further digital education integration within specific law enforcement education environment. The article includes the identification of problematic areas by using historic research method, particularly from digital education integration learning experiences. At the conclusion of this research future outlooks in harnessing the potential of digital education within law enforcement have been proposed based on analysis of scientific literature, legal documents as well as empirical insights derived from hands-on experience in teaching within law enforcement environment.*
Keywords: *artificial intelligence, digital competence, digital education, law enforcement.*

Introduction

Post Covid-19 e-learning hyperinflation – peak, reforms, transformations conclusions and suggestions retain and ongoing need to research and further strengthen digital education perspectives at all levels. Future digital education perspectives have been defined on April 18, 2023 via The European Commission has approved initiatives aimed at enhancing digital education and training throughout the European Union with the goal of facilitating top-notch, inclusive, and easily accessible digital education and training to cultivate the digital expertise of European citizens (European Commission, 2023). The EU, within the Digital action plan for 2021-2027 is planning to facilitate excellence in advanced and specialized digital skills courses both in higher and vocational and training (European Commission, 2023) Just like in all spheres and contexts of education also in law enforcement it is essential not only to provide high quality, efficient and up-to-date education process, simultaneously, taking into consideration specific environment of law enforcement training as restricted or limited access

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information, it is important to analyse carefully all aspects, risks and challenges when implementing rapid training transformation. According to the Council of Higher Education in Latvia when universities and colleges incorporate AI tools into their academic work, including adapting and changing their learning, teaching and assessment approaches and research methods, they should also be aware of the academic integrity risks posed by AI tools (Jurista vārds, 2023).

Furthermore, it is essential to identify the key areas law enforcement institutions need to invest in – both from the perspectives of infrastructure and, from perspectives of personnel's' digital competence. Research findings suggest that teachers having better ICT infrastructure at their workplace are more inclined to adopt digital technologies to and integrate various dimensions of their instructional practices (Soomro et al., 2020).

The objective of this study is to identify the main trends in AI integration for educational purposes define the main areas which will facilitate or decrease the development of digital education as well as provide suggestions on what practical steps need to be taken to use the potential of digital education at its most in specific law enforcement environment. To achieve the research objective, the author examines scholarly literature on education and technologies, outlining both the advantages and disadvantages regarding the potential of digital education within law enforcement education systems. The research includes analysis of scientific literature to identify main tendencies of digital education as well as to develop proposals to enhance the efficiency of digital education capacity in law enforcement training.

Topicality of digital education and AI development within the law enforcement

Over the last decade researchers were analysing contexts of digital education and artificial intelligence. Researchers indicate that artificial intelligence has gained significant attention in various domains of governance, spanning discussions about the evolution of employment, public management, security, and even response strategies for crises such as the COVID-19 pandemic. (Nalbandian, 2022).

There has been especial intensification of research across the EU recently concerning the development of AI, particularly with the launch of Chat GPT at the end of 2022. According to developed ChatGPT is intended as AI chatbot auto-generative system created by for online customer care. It operates as a pre-trained generative chat using (NLP) Natural Language Processing. The source of ChatGPT is data from various sources - textbooks, websites, articles, which computer uses to model and form its own language for response to human interaction (Pocock, 2023).

Researchers define AI "as the process of using computers and machines to mimic human perception, decision-making, and other processes to complete a task", when machines engage in high-level pattern-matching and learning in the process (Jimenez & Boser, 2021).

The developers of AI believe that their research will eventually lead to artificial general intelligence, a system that can solve human-level problems, they build "generative models using a technology called deep learning, which leverages large amounts of data to train an AI system to perform a task" (Achiam, 2023).

According to research findings (Božič & Poola, 2023) the integration of technology in education holds promise for transforming the learning process, facilitating individualized and engaging educational experiences, and granting students access to extensive resources and information. Nonetheless, the adoption of ChatGPT technology presents obstacles and constraints, such as worries regarding academic dishonesty, safeguarding data privacy, and mitigating bias. It is imperative for educators and policymakers to acknowledge these hurdles and implement suitable strategies to tackle them effectively.

The Digital Education Action Plan emphasizes the necessity of modernizing every education system, stressing the significance of all educational levels and sectors in addressing gaps in digital skills. It underscores the importance of enhancing educators' digital competencies and acknowledging the imperative to cultivate digital skills for societal participation within the framework of European innovation and competitiveness. (European Commission, 2020).

"The European Commission has updated the Digital Competence Framework (DigComp 2.2) to include skills, knowledge and attitudes related to AI and the use of data. The Commission plans to support the development of AI learning resources both for education and training" (European Comission, 2020). The goal of this plan is to empower all citizens and eventually becoming confident, critical and responsible end-users of digital technologies driven AI systems and autonomous decision-making, and aiming to enhance comprehension of AI, including its capabilities and constraints. Also, UNESCO is advising us to stay informed about emerging trends concerning AI's capacity to bolster learning and assessment methods, and reassess and adapt educational frameworks to foster deep incorporation of AI and reshape learning approaches. Contemplate utilizing existing AI tools or creating novel AI solutions in situations where the advantages of AI application significantly outweigh the associated risks. These efforts can aid in facilitating specific learning activities across diverse subjects and promoting the advancement of AI tools for interdisciplinary skills and competencies (UNESCO, 2019).

Researchers note that implementing or introducing digital learning entails more than just transitioning to online formats; it necessitates strategic planning

and effective leadership focused on integrating technology-driven learning and digitally transforming higher education (Redden et al., 2018).

Obstacles and possibilities of digital education integration and further development

Researchers indicate the aspect of implementing digital learning involves more than merely shifting to online formats; it requires deliberate planning and strong leadership dedicated to integrating technology-driven learning and digitally revolutionizing higher education. Researchers (Laufer et al., 2021) urge to promote policies and initiatives concerning digital learning and cooperation at institutional, national, and international levels. Additionally, advocate for a scholarly and practical emphasis on digital education leadership or e-leadership, where higher education leaders share resources with other entities, prioritize collaboration over personal advancement, and raise awareness of hidden inequalities addressable through digital technologies, both internally and externally. Furthermore, researchers suggest expanding existing university networks and forming new alliances, underscoring that the future may bring fresh global challenges necessitating international collaboration within the global knowledge community. Also, the Council of Higher Education in Latvia believes that in this process of change, Latvian higher education must assume a leadership role. Latvian universities and colleges must take the initiative and integrate AI tools in higher education and research (Jurista vārds, 2023). Undoubtedly not only strategies and policies with regard to AI should be developed but also teachers have to be prepared for upcoming changes. Preparation of teachers for AI integration has been outlined in UNESCO Beijing consensus (2019), where "governments and other stakeholders in UNESCO's Member States, in accordance with their legislation, public policies and practices are encouraged to consider several actions in response to the education-related opportunities and challenges presented by AI" (UNESCO, 2019), including recognizing that although AI offers prospects to assist teachers in their educational and pedagogical roles, it's crucial to prioritize human interaction and collaboration between teachers and learners as the foundation of education. The Beijing consensus cautions us to acknowledge that machines cannot replace teachers and to safeguard their rights and working conditions. Member states are encouraged to continuously reassess and delineate the roles and necessary skills of teachers within the framework of teacher policies, enhance teacher training institutions, and create suitable capacity-building initiatives to equip teachers for proficient work in educational environments abundant with AI. (UNESCO, 2019). The results of Montenegro-Rueda et al. (2023) twelve studies "show that the implementation of ChatGPT in the educational environment has a positive impact on the teaching–learning process, however, the results also highlight the

importance of teachers being trained to use the tool properly". As AI technologies become more prevalent in law enforcement, it is essential for all parties involved, including community representatives and other criminal justice entities, to engage in ongoing discussions regarding the balance between personal privacy and public safety. These conversations become increasingly pertinent as AI applications advance, offering enhanced surveillance and investigative capabilities.

Researchers conclude that thoughtfully crafted formative AI assessments leveraging cutting-edge technological advancements can accelerate and enhance student learning. These mechanisms are integral components of the teaching and learning journey. Whether through intelligent tutoring, stealth assessments, gamification, or virtual reality, AI-generated mini-tests offer diverse avenues for creating engaging educational tools. However, achieving this goal necessitates increased investments in research and development of novel testing technologies within the education system, empowering teachers and students with essential resources (Jimenez & Boser, 2021).

Conclusions of literature review and proposals

After research of scientific literature undeniably we can conclude that we are facing even more rapid development of AI which will bring even more learning possibilities and even more following risks. Particularly law enforcement institutions have to consider AI integration risks carefully since education process is related to restricted access information and rather limited sources of information. Law enforcement education institutions have to collaborate both at strategic level to develop joint policies strategies for AI effective and safe use, should develop long-term plans (including financial investments) to support teacher competence development, particularly digital competence and research interest. In order to cascade AI integration best practices regional digital education research and competence building excellence centres or alliances should be established among law enforcement education institutions, for example within law enforcement education establishments in Baltic states. Such excellence centres should collaborate with analogue establishments across the EU, could have strategic collaboration activities with leading and respectable law coordination, training and development support organisations as Frontex, Cepol, NATO, George Marshall Centre etc. Furthermore, establishment of such excellence centres could be initiated on the basis of EU funding programs programmes. Among AI research and development activities these centres would take part in in strategic policy developments, interactive AI training content development and teacher training activities to share and disseminate best practices of AI usage and mitigation of potential risks as cyberattacks, etc.

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