The Role of AI and Advanced Technology in Shaping Social Entrepreneurship and Digital Skills: A Comparative Study of UAE and Canada*

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Abstract

Advanced technology and artificial intelligence (AI) are revolutionizing social entrepreneurship by boosting productivity, encouraging creativity, and tackling pressing societal issues. According to Bakri et al. (2024), the adoption of AI gives social enterprises a competitive edge, as companies using AI enhance their market positioning. Additionally, Upadhyay et al. (2021) research stated that entrepreneurs' willingness to incorporate technology into their business models is greatly influenced by their expectations of AI's performance. Moreover, during times of global disruption like COVID-19, AI played a crucial role in crisis resilience. Blockchain and AI technologies enabled companies to streamline and maintain operations in difficult situations (Olaide et al., 2023). The pandemic further demonstrated AI's role in business sustainability, which accelerated its adoption for digital transformation (Gómez et al., 2023). According to Zhou and Cen (2024), AI-powered solutions like ChatGPT also encourage innovation and networking among business owners, which eventually improves idea generation and commercialization. Furthermore, AI's role in advancing the circular economy is another example of how it contributes to sustainable practices. AI enables social enterprises to function more sustainably by maximizing resource utilization and reducing waste (Redko, 2024). Additionally, incorporating AI into training and education programs equips upcoming social entrepreneurs to use technology efficiently, improving long-term organizational success (Gómez et al., 2023). Another area where AI is having an impact is collaboration. AI strengthens collaborations within the social entrepreneurship ecosystem by facilitating networking, knowledge exchange, and strategic decision-making (Kim et al., 2020). To summarize, AI and cutting-edge technology are influencing social entrepreneurship's future by boosting productivity, encouraging creativity, and opening up cooperative and sustainable business models. Based on that, the way that students are being prepared for social entrepreneurship and learning digital skills has changed because of the incorporation of digital technologies and AI into educational settings. Accordingly, digital technology and AI's effects on students' digital skills and social entrepreneurship readiness are considered now complex issues that need careful research. On a similar note, educational systems face the challenge of adapting to the changing digital landscape by utilizing technology to improve learning outcomes and cultivate the skills

AI integration in educational settings encourages students to acquire critical digital skills. It has been demonstrated that AI-powered solutions like chatbots and intelligent assistants improve critical communication abilities. Alwazzan (2024), for example, discovered that these tools greatly enhance students' capacity for digital discourse, emphasizing abilities like logical idea organization and active listening. These results are consistent with those of Karyotaki et al. (2024), who explain how immersive technologies such as Virtual Reality (VR) can improve problem-solving and teamwork, two 21st-century essential skills for successful engagement in social entrepreneurship. Adding to that, digital skills also include critical thinking and ethical literacy in technology use, in addition to technical proficiency. Knowledge of AI's ethical implications and applications, according to Sengsri and Khunratchasana (2024), equips students for responsible digital citizenship and increases their preparedness for entrepreneurial activities in a technology-driven economy. Continuous debates concerning the ways in which technology can foster social entrepreneurship and innovation serve to highlight this significance (Xiang et al., 2022). On a similar note, the role of educational interventions in cultivating these skills cannot be overstated. Programs like the one Mutmainah et al., started in (2024) that emphasized how crucial it is for students to receive organized instruction in AI and digital literacy since it gives them a fundamental understanding of emerging technologies and how they will affect society. By defining their roles as knowledgeable creators who can use technology for social purposes, students are better equipped to navigate the complexities of digital entrepreneurship. This was supported by Cao and Liu's (2023) research that shows that digital readiness-focused educational frameworks greatly enhance students' capacity to embrace and use digital tools in entrepreneurial settings. This has consequences for how fostering essential digital competencies through entrepreneurship education and AI advancements strengthens students' aspirations to pursue entrepreneurship (Dabbous and Boustani, 2023). Moreover, it was proved that students with strong digital skills will be better equipped to meet the evolving demands of the labor market (Green, 2024). Despite the importance of AI and digital technologies' impact on social entrepreneurship at different levels, there are still gaps in the literature that are worth highlighting. Firstly, there is still a lack of knowledge regarding the long-term effects of coding and digital skills, despite prior research showing that they greatly increase students' entrepreneurial engagement and success. Sansone et al., (2024) emphasize that these competencies, which are in line with human capital theory, give students the fundamental tools they need to navigate entrepreneurship. Furthermore, ElMadhi and Nasser (2024) emphasize the necessity for educational systems to give digital literacy top priority and support incorporating digital innovation into family businesses to foster entrepreneurial skills. However, more research is needed to determine whether digital competencies and social entrepreneurial readiness are directly correlated. Although they contend that self-directed learning is essential to entrepreneurial behavior, Nishantha and Fernando (2020) urge further study into the ways in which digital skills affect this process. Furthermore, there are still a lot of unanswered questions regarding the practical application of social intelligence and digital skills in actual entrepreneurial settings, even though their interaction in entrepreneurship is becoming more widely acknowledged. High social intelligence, according to Wu and Wu (2019), fosters creativity and knowledge absorption in digital entrepreneurship, highlighting the significance of cross-platform networking and collaboration. In the same way, Binsaeed et al. (2023) emphasize how digital analytics contributes to entrepreneurial readiness, especially when it comes to using big data insights to propel business success. Even though students might show that they are proficient in digital skills, little empirical research has been done on how these abilities translate into real-world entrepreneurial outcomes. Examining this gap could yield important information about how digital skills and social intelligence work together to influence entrepreneurial success. Consequently, research is required to close this gap. Another gap is related to the significant knowledge gap regarding the direct influence of digital technology integration on entrepreneurial outcomes, even though this integration is receiving more attention. The relationship between pedagogical approaches in digital learning environments and actual entrepreneurial success is still poorly understood, even though (Ahmad et al., 2024) examine the relationship between knowledge management in digital ecosystems and entrepreneurial performance. This emphasizes how frameworks for entrepreneurship education need to be re- examined to make sure they include both theoretical understanding and real-world application of digital skills. Inadequate funding and resources are other enduring obstacles to digital entrepreneurship that Masenya (2021) notes have been made worse since COVID-19.

The need to create more efficient educational models that give entrepreneurs the digital skills they need to succeed in a changing business environment is highlighted by these difficulties. Adding to these gaps is that the psychological aspects of entrepreneurial readiness are still not well understood, especially when it comes to digital competencies. Young individuals' entrepreneurial readiness is largely shaped by their perceptions of entrepreneurial education, according to Quagrainie (2023); however, little is known about how digital literacy affects these perceptions. The need for more research into how digital competencies can transform conventional educational frameworks to foster a more robust entrepreneurial mindset is highlighted by this gap. Building a stronger link between entrepreneurship education and digitalization is crucial to developing a student body that is more innovative and adaptive. Overall, even though current research offers a fundamental understanding of how AI and digital technologies can improve students' digital skills and social entrepreneurial readiness, there are still many unanswered questions. To close these gaps, a multidirectional strategy that includes pedagogical innovations, longitudinal research, and the investigation of the social and psychological aspects of digital entrepreneurship is required. Technology is developing so quickly that educational frameworks that mold aspiring entrepreneurs in a more complicated digital environment need to be re-examined. Based on that, this study explores how university students in the United Arab Emirates (UAE) and Canada perceive the role of these technologies in fostering innovation and entrepreneurship, with a focus on enhancing digital skills and promoting social entrepreneurship. This research evaluates the impact of AI and advanced technology on students' digital skills and entrepreneurial readiness through a cross-sectional comparative quantitative approach. Data will be collected through surveys conducted at universities in both countries, examining students' experiences with AI- driven tools and their preparedness for the evolving workforce. Preliminary findings are anticipated to reveal significant insights into how AI and advanced technology influence students' digital competencies and entrepreneurial mindsets, with notable regional differences. In the UAE, these technologies are expected to play a crucial role in facilitating technology transfer and advancing digital skills, aligning with the theme of entrepreneurship in developing countries. In contrast, in Canada, advanced technology and AI are likely to be more extensively used for ideation and prototyping, reflecting a mature high-tech entrepreneurship ecosystem. As AI and advanced technology become increasingly embedded in business, education, and entrepreneurship, the results of this study are expected to highlight the urgent need for educational institutions, and innovation centres to adapt their curricula. Emphasis on the importance of digital skills training and the benchmarking of best practices in entrepreneurship education will be essential to strategically align innovation and social entrepreneurship. This research aims to contribute to the ongoing discourse on the transformative potential of AI and advanced technology, underscoring their role in shaping the future of social entrepreneurs and fostering sustainable innovation and growth.