Artificial Intelligence and the Future of University Education in Iran

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Abstract

The emergence of artificial intelligence (AI) within the context of the fourth industrial revolution has become a significant trend for societies worldwide. Methods of university education, as a crucial social structure, has always been influenced by technological advancements. However, AI has revolutionized university education at a rapid pace, with profound and extensive implications. The main question of this article was how AI expansion will impact the future of university education in Iran. To address this inquiry, various related questions are addressed, including global trends of AI in university education, the perspectives of Iranian academics on the influence of AI in university education, uncertainties arising from AI integration in Iranian university education, and the potential scenarios for Iran's university education under the shadow of AI. To answer these questions, the research employed several methodologies, such as trend analysis, expert panel discussions, brainstorming sessions, structural-interpretive analysis, and scenario development. The findings revealed that a national consensus on AI has not been established in Iran, consequently hindering the development of adequate legal, software, and hardware infrastructure. There is a need for an in-depth review of AI, its functions, and its effectiveness in university education in order to foster a comprehensive understanding of its implications.

Introduction

Artificial intelligence (AI) has transformed scientific development, creating a potential for machines to rival or replace human researchers and experts. This has prompted the need for more efficient investment in scientific

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research and development, with smart machines offering viable prospects. This study aims to investigate the following: (1) the global developments of AI in higher education, (2) the trends and events influenced by AI in university education, (3) perceptions of Iranian managers, faculty members, specialists, and academic experts on the future of university education in Iran, and (4) potential scenarios for the country's university education, as informed by these experts.

Methodology

A documentary study approach was utilized to examine global developments of AI in higher education and university systems, and the trends and events impacted by AI. To explore the opinions of Iranian educational stakeholders, expert panels were conducted. Content analysis was applied for qualitative categorization of expressed propositions, while structural-interpretive analysis was employed to determine variable effectiveness in examining AI's impact. Lastly, a scenario method was implemented to identify alternative futures of Iranian universities under the influence of AI.

Findings

The study reveals that the university education system in Iran, in the context of AI influence and expansion, is situated between evolution (best scenario) and collapse (worst scenario). Stakeholders (e.g., policymakers, administrators, faculty, students, researchers, and non-academic employees) actions and intentions will determine which scenario will prevail. Currently, no national or university plan has been established to capitalize on the capacities of AI and manage its potential threats. Consequently, the Iranian university system is directed toward maintaining the status quo, which may not be sustainable without a plan to transition to the desired situation. The education system should adopt an experimental mindset, valuing growth, learning, and success through experimentation, learning from failures, and applying these lessons in future experiments. A data-centric culture is crucial for building the cultural readiness needed to implement AI in higher education, enabling continuous improvement of data analysis strategies and tactics.

Discussion and Conclusion

In the absence of meaningful, purposeful, and forward-looking actions, the Iranian university education system may face dismantling, dimming, and fading due to AI proliferation. Alternative, intelligent educational systems designed to cater to Iranian citizens' tastes and talents may exploit the

country's human capital to serve goals that may not necessarily align with national interests in the long run.

References

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