

The effect of artificial intelligence capabilities on strategic foresight

Mohammad Hadi Ghasemi* 

PhD Student in Futures Studies, Supreme National Defense University and Strategic Research, ,
Iran, Tehran, mh.ghasemi110@gmail.com

Mahdi Rahimi 

Researcher at the Institute of Islamic Culture and Thought, Tehran, Iran.
rahimi.guilani@gmail.com

Mohammad Rahim Eivazi 

Full Professor, Department of Political Science and Islamic Revolution Studies, Shahed
University, Tehran, Iran. danesh.mr@yahoo.com

Abstract

Objective: The complementarity of the relationship between artificial intelligence and humans is one of the important points that can increase the decision-making capacity in complex environments. This is possible due to the modern capabilities of artificial intelligence in the analysis of big data, meaningful collective intelligence and cognitive computing. A possibility that by designing intelligent algorithms can help to optimize the decision and real-time decision-making in a complex and dynamic environment. This article tries to know how to use the capabilities and capabilities of artificial intelligence such as predictive decision making to face complex problems in environments with high uncertainty. How will AI capabilities impact future research with a particular focus on foresight and future design?

Methodology: In terms of type classification, this research is considered as applied research. The approach of qualitative research is of the correlational research type, and targeted sampling is used in it. The method of data analysis is based on qualitative analysis.

Findings: This research has achieved an improved model of strategic foresight based on the capabilities of artificial intelligence by examining the Verus model and adapting the capabilities and capacities that artificial intelligence has created now or will provide in the future.

Conclusion: By examining the capabilities and capabilities of artificial intelligence and the actual impact of artificial intelligence on the field of strategic foresight, a new model has been presented in the combination of artificial intelligence and the Vorus foresight model. This model can imply the use of artificial intelligence in strategic foresight and consequently the factor of preventing surprises created in the future by artificial intelligence for the scientific field of foresight.

Keywords: Artificial intelligence, simulation, future research, strategic foresight, visualization, scenario development.

Cite this article: Ghasemi, Mohammad Hadi. Rahimi, Mahdi. Eivazi, Mohammad Rahim (2025) The effect of artificial intelligence capabilities on strategic foresight, Volume 10, NO.1 Spring & Summer 2025, 39-65

DOI: 10.30479/jfs.2023.18401.1463

Received on: 30 August 2024 **Accepted on:** 26 November 2024

Copyright© 2025, The Author(s). 

Publisher: Imam Khomeini International University

Corresponding Author/ E-mail: Mohammad Hadi Ghasemi / mh.ghasemi110@gmail.com

Introduction

Currently, the opportunities and threats and the effect of artificial intelligence capabilities on futurism are not well known, and prominent futurists in this field have not yet made a clear conclusion. Some futurists express limitations for it. Andy Hines, as one of the contemporary futurists, says that we will be able to do it technologically (artificial intelligence), but considering when people will want or accept it, its serious use will probably be in the distant future. However, in recent years, futurists have rarely used technological tools as a central part of their activities. Many of the methods that were developed in the early days of futurism, such as scenario planning, observation, and the Delphi method, are still widely used today; This is despite the fact that future research functions have capacities and limitations that artificial intelligence can change or even transform these capacities and limitations (Hines, 2016). Therefore, it is necessary to know the effects of artificial intelligence on future research and to get the necessary preparation to face this phenomenon. Due to the nature of future research, which is a science-technology, in most of the methods used, people and experts in various specialized fields are needed. In fact, future research knowledge, like most social science fields, based on the opinions and experiences of the owners of knowledge and experience, the methodology completes the future research process and brings it to a conclusion. This means that the functions of future research to achieve results and solve issues and problems, on the one hand, have a strong dependence on human mental power - this power has limitations; For example, methods such as Delphi, expert panel, scenario development, road map, etc. are highly dependent on an organized specialized team, and in order to provide conditions for problem solving and bringing the process to a conclusion in these methods, human intelligence is needed, or in other words More precisely, the expert plays a key role. On the other hand, artificial intelligence is trying to bring itself to the level of human performance or beyond. Even according to many sources, the goal of artificial intelligence designers is to create new versions beyond the power of the human brain (higher performance than the human brain) in future programs, and some capabilities such as mathematical calculations that are much stronger than the power of the human brain are being done; But there are still very complex capabilities in humans that current artificial intelligence does not cover (Acemoglu & Restrepo, 2018).

Methodology

In terms of its type, this research is considered as applied research. On the other hand, the approach of the current research is qualitative and this research aims to collect data in order to conceptualize and provide prescriptive propositions. The tool used to collect information was an open interview. Regarding the scope of the research, the scopes are determined in three temporal, thematic and geographical sections as follows:

- Subject area: the effect of artificial intelligence capabilities on strategic

foresight;

- Time domain: due to the importance and high speed of change and evolution in the state of artificial intelligence and its application, the horizon of the next ten years (until the end of 1412) has been considered; And
- Spatial realm: The global realm is about this phenomenon with the view of its effects from the perspective of Iranian futurists.

Analysis and discussion

In order to redesign and improve the strategic foresight model of Verus and by using document review and library studies and benefiting from the complementary point of view of experts, two categories of capabilities for strategic foresight and artificial intelligence were identified. In this section, these two categories of capabilities should be matched and the most important ones should be used to design the native model of smart strategic foresight. Based on experts' opinion and according to Table No. 1, identified capabilities Is presented.

Table 1. Primary classification of strategic foresight capabilities and artificial intelligence capabilities

Strategic foresight capabilities	Artificial intelligence capabilities
Prioritization	Data mining and reasoning from data
Compilation of the road map	Modeling
Visioning	Identify symptoms
Analysis and compilation of scenarios	Identify trends
Information screening	Fast processing
Prospecting	Visualization and visualization of data
Forecast	Modeling problem solving
Study future trends and events	Simulating and drawing cognitive patterns
Consensus and discourse building	Interactivity
Monitoring and identifying symptoms	Machine learning from existing data
Navigation and scanning	Fuzzy Logic
Monitor variables	Expert systems
Analysis and interpretation	Natural Language Processing
Strategizing	Neural Networks
-	Interpreter systems
-	Recommender systems
-	Decision support systems

After separating the capabilities of the two fields of strategic foresight and artificial intelligence according to the above table, the mutual effect of these items on each other should be examined and while matching these capabilities and the common lines between them, the most important and effective capabilities of artificial intelligence on the capabilities of strategic foresight should be identified. This helps us to improve the strategic foresight model of Verus, which is considered as the base model in this article, with the help of the effective capabilities of artificial intelligence.

Conclusion

Futuristic research can play an active or reactive role in interacting with artificial intelligence, and in the same way, one can imagine opportunities or threats for the presence of artificial intelligence in the future research field. Foresight, which is the field of hard studies of the future and taking action to know and face the future, can benefit from the capacities created by artificial intelligence and actively use these capacities to achieve their goals. Among the conventional and defined models of foresight, the Verus model is one of the models that is used more for strategic foresight and is considered among the conventional models. In this research, by examining this model and adapting the capabilities and capacities that artificial intelligence has created or will provide in the future, an improved model of strategic foresight based on artificial intelligence capacities has been achieved, which can include the use of artificial intelligence. In strategic foresight and guarantee to prevent surprises created in the future by artificial intelligence for foresight. Based on the results of this research and as a summary, three-layer functions can be imagined for the effect of artificial intelligence capabilities on strategic foresight:

- Natural functions layer
- Layer of upcoming challenges
- Layer artificial intelligence threats on foresight
- Layer artificial intelligence opportunities on foresight

References

- Acemoglu, D. and Restrepo, P. (2018). *Artificial intelligence, automation and work*,
- Big encyclopedia of future research methods. (1393). Translator: Marzieh Kiqbadi and Farkhunde Malekifar. Tehran: Vice President of Broadcasting Planning, (In Persian).
- Dator, J. (2020). Editorial: Thoughts on Big Data, AI, and Futures Studies. *World Futures Review*, 12(2), 151–155.
- Ghasemi, Mohammad hadi and Bagherpanahi, Faezeh. (1397). The role and position of the scenario method in decision-making and future decision-making. *The 4th International Conference on New Horizons in Human Sciences and Management*, Tehran, (In Persian).
- Taeihagh, A. (2021). *Governance of artificial intelligence*. *Policy and Society*, 2(40), 137-157.
- Trujillo-Cabezas, R. (2020). *Integrating Foresight, Artificial Intelligence and Data Science to Develop Dynamic Futures Analysis*. *Journal of Information Systems Engineering and Management*, 5(3), em0120. <https://doi.org/10.29333/jisem/8428>.