

Al Application for States Security: <u>A Literature Review</u>

Rizky Hamdani Sakti, Alimudinsyah Alrasyid, Jenni Febiyola Sari, Diky Zakaria 1,*

¹Department of Mechatronics and Artificial Intelligence, Universitas Pendidikan Indonesia, Purwakarta, Indonesia

*Correspondence author email: rizkyhamm@upi.edu

Introduction

Artificial Intelligence is a branch of computer science which focuses on developing theories, methods, technologies and application systems for simulating, extending and expanding human intelligence (Bistron & Piotrowski, 2021). This research examines the applications of Artificial Intelligence in state security, reviewing articles from the Scopus database with key research questions regarding AI, it's current state, future potential, and implementation in state security.

Methods

The research used a Systematic Literature Review (SLR)

1.Article Selection

No. Number of Article **Process** Entering keywords ("artificial intelligence" AND 5460 articles "state security") in the Google Scholar search field. 3620 articles Custom the range time to 2018 - 2023 Review articles type 128 articles 3 95 articles Closed access articles 4 Filter articles is not relevant 20 articles Final number of articles used 20 articles

2. Article Review Process

After the article selection process is complete, then the author downloads the 20 articles and reviews the articles by answering the 5 predetermined RQs, providing discussion, and providing conclusions.

Research Questions

Based on the background, the author wishes to write a review paper discussing about artificial intelligence in state security with the following research questions (RQs):

- RQ1: What is Artificial Intelligence?
- RQ2: Why security is important?
- RQ3: How is artificial intelligence today?
- RQ4: How much potential of artificial intelligence in the future?
- RQ5: How is the implementation of artificial intelligence in state security?

Results and Discussion

Article Metadata

Answering RQs

Answering RQs

RQ1: What is Artificial Intelligence?

Artificial Intelligence is a branch of computer science focused on developing theories, methods, technologies, and application systems to stimulate and extend human intelligence. It helps solve and analyze problems, and has expanded significantly since its introduction at the Dartmouth Conference in 1956.

RQ2: Why security is important?

Data is highly valuable and the misuse of it can be detrimental. Artificial intelligence helps protect this data from being manipulated or misused by malicious actors, thus ensuring data integrity and security.

RQ3: How is artificial intelligence today?

Today, AI Is embedded in numerous technology sectors such as computer science, security, criminology, psychology, and robotics. It plays a critical role in enhancing various functions and services, including customer data protection and system security.

Answering RQs

RQ4: How much potential of artificial intelligence in the future?

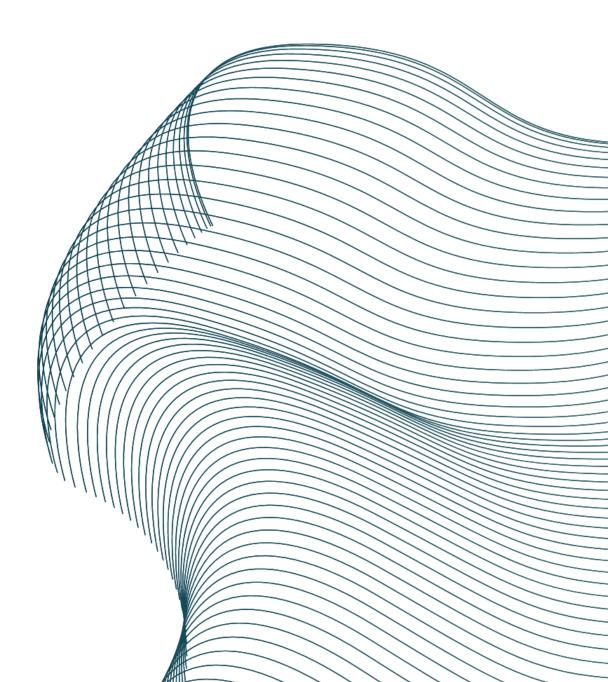
All has the potential to revolutionize industries by improving efficiency and security. It can manage and process large datasets, detect cyber threats, and automate routine tasks, which reduces costs and enhances data protection.

RQ5: How is the implementation of artificial intelligence in state security?

All is extensively used in state security to combat cybercrime and enhance public safety. Techniques such as machine learning on big data help in smart email protection, malicious domain blocking, and improving surveillance through smart CCTV and police robots.

Conclusion

The literature review concludes that AI has a profound impact on state security by offering advanced solutions to cyber threats and enhancing public safety. The continuous research and development in Artificial Intelligence technologies promise further innovation and improved security measures.



References

- Bistron, M., & Piotrowski, Z. (2021). "Artificial Intelligence Applications in Military Systems and Their Influence on Sense of Security of Citizens," Electronics, 10(7), 871. https://doi.org/10.3390/electronics10070871
- Briscoe, E., & Fairbanks, J. (2020). "Artificial Scientific Intelligence and its Impact on National Security and ForeignPolicy," Orbis, 64(4),544–554. https://doi.org/10.1016/j.orbis.2020.08.004
- B.S., S., S., N., Kashyap, N., & D.N., S. (2019). "Providing Cyber Security using Artificial Intelligence A survey," 2019 3rd International Conference on Computing Methodologies and Communication (ICCMC), 717–720. https://doi.org/10.1109/ICCMC.2019.8819719