

" IS YEARS WEEK

Paper: "National Security and Cyber Defense in the Rise of Artificial Super Intelligence"

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Peer review:

Reviewer 1: Blinded

Reviewer 2: Djamel Zemoura Université Mohamed Khider de Biskra (UMKB), Algeria

Reviewer 2: Lourdes Ruiz Óbuda University, Hungary

Reviewer A: Recommendation: Resubmit for Review

The TITLE is clear and it is adequate to the content of the article.

The title, "National Security and Cyber Defense in the Rise of Artificial Super Intelligence," is clear and accurately reflects the content of the article.

The ABSTRACT clearly presents objects, methods, and results.

The abstract is well-written and provides a clear overview of the article's objectives, methods, and results. It outlines the dual nature of ASI in cybersecurity, highlighting both its potential as a defense tool and its risks as an offensive weapon. The abstract also mentions key strategies discussed in the paper, such as AI-driven deception techniques, blockchain integration, and international regulatory frameworks. However, it could briefly mention the real-world examples or case studies used in the article to strengthen its connection to the content. Additionally, the abstract could benefit from a clearer statement of the methods used in the analysis (e.g., case studies, comparative analysis, and theoretical scenarios).

There are a few grammatical errors and spelling mistakes in this article. The article is generally well-written, but there are a few grammatical errors and spelling mistakes. For example: In the introduction, the phrase "Still, today, cyber warfare exploits digital vulnerabilities" could be rephrased for better clarity, such as "Today, however, cyber warfare exploits digital vulnerabilities." In the section on AIdriven phishing, the phrase "Attackers successfully impersonated a CEO's voice to authorize fraudulent transfers amounting to hundreds of thousands of euros" could be improved by specifying the exact amount or using more precise language. Some sentences are overly long and could benefit from being broken into shorter, more concise statements. Overall, the article would benefit from a thorough proofreading to eliminate minor grammatical and stylistic issues. Additionally, simplifying the language in some sections would make the article more accessible to non-expert readers, such as policymakers or general audiences.

The study METHODS are explained clearly.

The article does not explicitly outline a "methods" section, as it is more of a review and analysis paper rather than an empirical study. However, the methods of analysis are implicit in the structure of the article. The author uses real-world case studies (e.g., SolarWinds, NotPetya) and theoretical scenarios to illustrate the capabilities and risks of ASI in cybersecurity. The comparative analysis between AGI and ASI is well-explained, and the use of examples from research labs like OpenAI and MIT adds credibility. While the methods are clear, the article could benefit from a more explicit explanation of how the case studies were selected and analyzed. Additionally, the article could improve structure by organizing the methods section more clearly, perhaps under a dedicated subheading.

The body of the paper is clear and does not contain errors.

The body of the paper is generally clear and well-organized, with a logical flow from the introduction to the conclusion. The content is rich and detailed, covering a wide range of topics related to ASI in cybersecurity. However, there are areas where the article could be improved: Some sections are overly dense and could benefit from being broken into smaller subsections with clearer subheadings (improve structure). There is some repetition, particularly in the discussion of ASI's offensive and defensive capabilities, which could be condensed for better readability. While the body of the paper is free of major errors, there are minor grammatical issues and stylistic inconsistencies that could be addressed. The article could benefit from adding visual aids, such as diagrams, charts, or tables, to illustrate key points (e.g., the differences between AGI and ASI, or the lifecycle of an AI-driven cyberattack). This would enhance readability and make complex concepts easier to understand. The CONCLUSION or summary is accurate and supported by the content. The conclusion is accurate and effectively summarizes the key points discussed in the article. It reiterates the dual role of ASI in cybersecurity, emphasizing both its potential as a defense tool and its risks as an offensive weapon. The conclusion also highlights the need for international regulatory frameworks, ethical guidelines, and human oversight in the deployment of ASI. However, the conclusion could be strengthened by briefly summarizing the real-world examples and case studies discussed in the article, as this would provide a more concrete connection to the content. Additionally, the conclusion could address counterarguments more explicitly, such as the risks of over-reliance on ASI, the potential for ASI to be hacked or manipulated, and the ethical concerns of fully autonomous cyber defense systems. The list of REFERENCES is comprehensive and appropriate.

The list of references is comprehensive and appropriate, citing a wide range of sources, including academic papers, technical reports, and white papers. The references are up-to-date and relevant to the topic of ASI in cybersecurity. However, the article could benefit from a few more recent studies or reports, particularly on the current state of ASI development and its practical applications in cybersecurity. Additionally, the article could expand on international collaboration by including more references to current international efforts in AI and cybersecurity, such as NATO's Cooperative Cyber Defence Centre of Excellence (CCDCOE) or the European Union Agency for Cybersecurity (ENISA). *Please rate the TITLE of this paper*.

[Poor] **1-5** [Excellent]

Please rate the ABSTRACT of this paper.

[Poor] **1-5** [Excellent] 4

Please rate the LANGUAGE of this paper. [Poor] 1-5 [Excellent] 4

Please rate the METHODS of this paper. [Poor] 1-5 [Excellent] 3

Please rate the BODY of this paper. [Poor] **1-5** [Excellent] 3

Please rate the CONCLUSION of this paper. [Poor] 1-5 [Excellent]

Please rate the REFERENCES of this paper.

[Poor] **1-5** [Excellent] 4

Overall Recommendation!!!

Return for major revision and resubmission

Comments and Suggestions to the Author(s):

Reviewer C:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

The title is adequate for the topic treated

The ABSTRACT clearly presents objects, methods, and results.

The abstract is a summary of the paper. As it is a review paper, methods are not presented. Results are briefly presented.

There are a few grammatical errors and spelling mistakes in this article. There are some format and punctuation mistakes.

The study METHODS are explained clearly.

It is a review paper, so no methodology is explained

The body of the paper is clear and does not contain errors.

The paper is well-structured and informative. The sections and subsections are welldefined and follow a logical outline.

The CONCLUSION or summary is accurate and supported by the content.

The conclusion summarizes the whole content presented in the paper and gives recommendations and future trends.

The list of REFERENCES is comprehensive and appropriate.

The paper does not present any in-text citations. In the end, there is a list of references (24), but they are not connected to the text.

Please rate the TITLE of this paper.

[Poor] **1-5** [Excellent] 5

Please rate the ABSTRACT of this paper.

[Poor] **1-5** [Excellent] 4

Please rate the LANGUAGE of this paper. [Poor] 1-5 [Excellent] 5

Please rate the METHODS of this paper.

3

[Poor] **1-5** [Excellent] 3

Please rate the BODY of this paper. [Poor] 1-5 [Excellent] 5

Please rate the CONCLUSION of this paper. [Poor] 1-5 [Excellent] 5

Please rate the REFERENCES of this paper. [Poor] **1-5** [Excellent]

2

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

I suggest adding text citations and more updated references since it is a review paper. I suggest strengthening the introduction with a clearer definition of AI, AGI, and ASI. Deepen in the ethical considerations and policy recommendations.

Reviewer D: Recommendation: Accept Submission

The TITLE is clear and it is adequate to the content of the article.

Is clear and adequately reflects the content of the article.

The ABSTRACT clearly presents objects, methods, and results.

Yes, the abstract effectively presents the objectives, methods, and results of the study, but it could be slightly improved for clarity.

There are a few grammatical errors and spelling mistakes in this article. I didn't notice anything

The study METHODS are explained clearly.

The study methods are not explicitly detailed in the manuscript. While the paper presents real-world case studies and discusses various AI-driven cybersecurity frameworks, it does not clearly describe the methodology used to analyze these aspects.

The body of the paper is clear and does not contain errors.

The body of the paper is generally clear and well-structured, but there are some areas that could be refined for clarity and correctness.

The CONCLUSION or summary is accurate and supported by the content.

Yes, the conclusion (or summary) of the article is accurate and supported by the content. However, there are some areas that could be improved for better clarity and impact.

The list of REFERENCES is comprehensive and appropriate.

Yes, the list of references appears to be comprehensive and appropriate, covering a broad range of academic, technical, and policy-related sources relevant to AI, cybersecurity, and national defense.

Please rate the TITLE of this paper. [Poor] 1-5 [Excellent] 4

Please rate the ABSTRACT of this paper. [Poor] 1-5 [Excellent] 4

Please rate the LANGUAGE of this paper. [Poor] 1-5 [Excellent] 4

Please rate the METHODS of this paper. [Poor] 1-5 [Excellent] 4

Please rate the BODY of this paper. [Poor] 1-5 [Excellent] 4

Please rate the CONCLUSION of this paper. [Poor] 1-5 [Excellent] 4

Please rate the REFERENCES of this paper. [Poor] 1-5 [Excellent] 4

Overall Recommendation!!! Accepted, minor revision needed

Comments and Suggestions to the Author(s):

I've added comments suggesting clarifications on the methodology, ethical concerns, and technical countermeasures.
