Review of: "Information Technology for Detecting Fakes and Propaganda Based on Machine Learning and Sentiment Analysis"

Melika Ghobakhloo[1]

1 University of New Brunswick

Strengths:

Interdisciplinary Approach: The article effectively emphasizes the importance of interdisciplinary collaboration in combating disinformation, acknowledging the need for partnerships between technologists, sociologists, policymakers, and media professionals. This recognition of the socio-political and ethical dimensions of disinformation is a strong point of the research.

Comprehensive Analysis: The thorough examination of the methodologies and technologies used in recent research provides a detailed understanding of the evolution of the disinformation detection landscape. The authors offer valuable insights into the development of more robust and adaptive approaches to identifying and combating misinformation.

Emphasis on Emotional Color Analysis: The inclusion of emotional color analysis in the research adds a valuable dimension to the study, providing quantitative results that indicate differences in emotional connotations between propaganda and non-propaganda materials. This contributes to the advancement of knowledge in the field of disinformation detection.

Areas for Improvement:

Addressing Biases in Training Data: While the article acknowledges the potential biases in training data that may impact the effectiveness of sentiment analysis and emotional color analysis, it would benefit from a more detailed exploration of how these biases can be mitigated. Providing practical strategies for addressing biases in training data would enhance the robustness of the research.

Mitigating Limitations Related to Language Dynamics: The article briefly mentions the limitations related to the dynamic nature of language and the evolving tactics used by propagandists. A more in-depth discussion of potential strategies to mitigate these limitations and adapt to changing linguistic nuances would strengthen the research.

Transparency in Methodology: While the article presents quantitative results from the emotional color analysis, more transparency regarding the specific methodologies used for sentiment analysis and emotional color analysis would enhance the reproducibility and rigor of the research.

Questions for Further Consideration:

1. How does the research propose to address potential biases in training data that may impact the effectiveness of sentiment analysis and emotional color analysis in differentiating between propaganda and non-propaganda materials?
2. What specific strategies are proposed to mitigate the limitations related to the dynamic nature of language and the evolving tactics used by propagandists to manipulate emotional connotations in deceptive narratives?

Based on the strengths of the article, including its interdisciplinary approach, comprehensive analysis, and emphasis on emotional color analysis, as well as the potential for addressing the identified areas for improvement, it is recommended to accept the article for publication after the above-mentioned revision.