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

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Potential competing interests: No potential competing interests to declare.

The article provides a comprehensive overview of modern approaches to detecting and countering fake news and propaganda using information technology, particularly focusing on Natural Language Processing (NLP), multimodal analysis, and machine learning. The review demonstrates a deep understanding of the challenges posed by misinformation in the digital age and offers insights into the evolving landscape of disinformation detection.

Strong Points:

1. The article offers a detailed examination of various techniques, including NLP, multimodal analysis, and machine learning, showcasing their strengths and limitations in detecting deceptive narratives.
2. The emphasis on interdisciplinary collaboration is commendable. Recognizing that addressing disinformation requires expertise from multiple fields, the article underscores the importance of partnerships between technologists, sociologists, policymakers, and media professionals.
3. The article rightly highlights the ethical considerations associated with automated detection methods, such as biases in algorithms and the implications of content moderation.
4. The inclusion of a program for analyzing the emotional coloring of propaganda and non-propaganda materials adds practical value to the review.

Weak Points:

1. The section titled "Analysis of the latest research and publications" lacks specific examples or references. Although the authors refer to "recent publications/literature", they provide only a limited number of examples. While the authors underscore the scientific novelty of their work, they could strengthen their justification by drawing comparisons with similar studies in the field.
2. While the article briefly mentions the challenges in assessing the effectiveness of disinformation detection systems, it could benefit from a more in-depth discussion on evaluation metrics. Exploring standardized indicators and benchmarks in greater detail would enhance the understanding of how detection systems are evaluated and improved over time.
3. Although the review extensively discusses detection techniques, it lacks a comprehensive exploration of countermeasures against disinformation. Providing insights into strategies for mitigating the impact of fake news and

propaganda, such as media literacy initiatives or regulatory frameworks, would complement the discussion on detection methods.

4. While the article acknowledges the importance of integrating different modalities for detecting disinformation, such as textual, visual, and possibly audio information, it could delve deeper into strategies for seamless integration.
5. The section utilizing sentiment analysis to examine the emotional tone of propaganda materials in comparison to non-propaganda texts should be clearly delineated as a distinct section. Additionally, integrating a "Results and Discussions" sub-section could enhance the overall structure of the paper.
6. The conclusions do not refer at all to the experimental part of the paper. Also, no future work is mentioned.
7. The conclusions fail to make any reference to the experimental part of the paper. Furthermore, there is no mention of future work.