Review of: "Methods of Identifying Fake News in Social Networks"

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1. The abstract is not well written:

a. Mention the algorithms or techniques you will use (e.g., neural networks, decision trees, or natural language processing).

b. State the goals of your study (e.g., "to develop a robust system for fake news detection").

c. Clarify whether the study focuses only on Ukraine or has a broader application.

d. Explain how your research will advance the field or address practical issues, such as reducing disinformation.

e. Mention how the effectiveness of the machine learning methods will be evaluated (e.g., accuracy, precision, recall).

f. Indicate whether you will compare your methods or results with existing approaches.

g. Provide more information about the dataset, such as its size, sources, and diversity.

2. The introduction is too short:

a. The introduction briefly touches on various topics (disinformation, misinformation, fake news, bots, and trolls) without focusing on a specific research angle.

i. Differentiate between disinformation and false information and misinformation.

b. The transition between different threats (disinformation, fake news) and their impacts is abrupt and lacks a cohesive narrative.

c. It does not clearly establish the main research question or purpose of the study.

d. The term "Let's look" is informal and not suitable for a scientific paper, inappropriate for academic writing.

i. Instead, you can use more formal alternatives, such as:

- "This paper examines..."
- "We analyze..."
- "The study investigates..."
- "This section explores..."
- "An analysis of... is presented."

e. It does not specify the study's goals, such as identifying threats, analyzing impacts, or proposing solutions.

f. While some references are provided, they are not linked to the research focus. For example, how does media literacy relate to the study's objectives? (Please see reference 1).

g. Terms like "fake news," "disinformation," and "misinformation" are used repeatedly without clarifying their differences or relationships.

h. Explain the relevance of referenced studies (e.g., R. Hobbs' work on media literacy) to the topic.

3. Dataset Information:

a. In academic papers, introducing the dataset immediately after the introduction is misplaced because the study hasn't yet established the theoretical context or existing methodologies.

b. The structure should be:

i. Introduction

ii. State of the art and related work

iii. Methodology

iv. Dataset Description

4. Model Training

a. The text lacks clear segmentation. It jumps between HS code classification and fake news detection without clear transitions or explanations of the relationship between the two.

b. If these are two separate applications, they should be treated as distinct sections with a proper introduction and conclusion for each.

c. Avoid redundancy. For example, explaining NLP twice in slightly different ways adds unnecessary length.

d. For the HS code prediction section:

- What type of SVM (Support Vector Machine) model is being used (e.g., linear, kernel-based)?
- Any additional preprocessing techniques or features beyond

tokenization and vectorization should be mentioned.

e. For the NLP section:

● While TF-IDF and Word2Vec are mentioned, their suitability for the task could be explained (e.g., why Word2Vec might be chosen for context-rich tasks).

f. Using screenshots to show code in technical or educational documents is generally not good practice.

5. Conclusion

a. The conclusion has some clear points but can be improved in terms of structure, precision, and clarity.

b. The statement about "maximum probability" is vague. It doesn't explain how the probability was calculated or what it signifies in practical terms.

c. The conclusion does not reflect on the implications of the findings, such as how they contribute to combating fake news or improving existing methods.

d. The probability of 0.68 is mentioned, but it lacks context (e.g., Is this the accuracy of the model? Is this the threshold for classification?).

e. Phrases like "was obtained" and "allows you to" can be replaced with more formal academic language.

f. There is no clear connection between the conclusion and the objectives stated in the introduction. The conclusion should close the loop.

g. The conclusion lacks mention of any future directions or potential improvements

6. References a. I recommend reviewing and carefully examining other recent publications, particularly one that has been published in the Information journal. It would be advantageous to compare your results with those of other authors who have employed different methodologies or approaches. i. Stitini, O.; Kaloun, S.; Bencharef, O. Towards the Detection of Fake News on Social Networks Contributing to the Improvement of Trust and Transparency in Recommendation Systems: Trends and C h a l l e n g e s. I n fo r m a t i o n 2 0 2 2, 1 3, 1 2 8. https://doi.org/10.3390/info1303012