**Individual In-depth Report**

**Member name:** [Yeshwanth Reddy Chennur](mailto:ychennur@asu.edu)

**Evaluated by:** [Avani Mundra](mailto:amudra@asu.edu)

**Date:** Sep 17, 2023

**Tasks Assigned:**

* Reviewing the paper titled "A Trusted Social Network Using Hypothetical Mathematical Model and Decision-Based Scheme".

**Summary:**

* Rathee's study "A Trusted Social Network Using Hypothetical Mathematical Model and Decision-Based Scheme" proposes a novel technique to improve trustworthiness in social networks.
* The approach combines complex mathematical principles to analyze the dependability and validity of network-shared information. This enables a more thorough verification procedure, which helps to reduce the spread of misinformation and illegal content.
* The decision-based approach also includes a strategy framework for analyzing and validating user-generated material.
* Using this technique, the social network may make informed judgments regarding the trustworthiness of shared information, encouraging a more dependable and safe online environment.
* Using this technique, the social network may make informed decisions about the reliability of shared information, promoting a more dependable and secure online environment.
* The authors present a strong solution to trust difficulties by merging mathematical modeling with a decision-based framework, thereby creating a more dependable and safe online social environment.
* The conclusions and approach given in this research have important implications for the future development and management of social networks, making a significant contribution to establishing a more trustworthy online ecosystem.
* This work is an important step forward in the area of social network security and user trustworthiness assessment.

**Outcomes:**

* To improve trust in social networks, the suggested framework combines an artificial mathematical model and a decision-based approach. This method provides a measurable metric of trustworthiness, allowing the network to filter and prioritize content. It is a huge step toward developing a more trustworthy and secure online social environment.

**References:**

[1] G. Rathee, S. Garg, G. Kaddoum, D. N. K. Jayakody, M. J. Piran and G. Muhammad, "A Trusted Social Network Using Hypothetical Mathematical Model and Decision- Based Scheme," in *IEEE Access*, vol. 9, pp. 4223-4232, 2021, doi: 10.1109/ACCESS.2020.3048077.

**Evaluation of Report**

**Evaluation summary with justification.**

The report is concise in summarizing the basis of social networks and the approach of improving trustworthiness in social networks using the proposed approach of decision based mathematical model. It is exhaustive in covering the methodology of the approach.

**The quality of the major result(s) with justification.**  
The major results have been discussed in detail in the report. Its implications and applications for the future have also been mentioned with clarity.

**The usefulness of the paper to the overall project.**   
The paper constitutes an important domain of the overall project and is highly relevant to the same.

**Other comments**

**Evaluation Approval  
  
Evaluation by:** [Avani Mundra](mailto:amudra@asu.edu) **Date:** Sep 17, 2023

**Is the written report of the in-depth study complete with all the major result(s) of the paper(s)? If not, provide as many examples of the major result(s) missing in the written report as possible. (in bullet form). [Normally within 100 words]**

* The report effectively summarizes the paper's context, motivation, and methodology.
* The report summarizes the approach of improving trustworthiness in social networks using the proposed approach of decision based mathematical model.

**Is each section of the guidelines sufficiently completed? If not, point out what is missing. [Normally within 40 words].**

Yes, each section of the guidelines is sufficiently completed.

**Is the quality of this version of the written report satisfactory? If not, then why not? [Normally within 40 words]**

Yes, the quality of the evaluation report is satisfactory.

**Approval.  
  
Approved by:** [Gautham Vijayaraj](mailto:gvijaya6@asu.edu) **Date: 9/18/2023  
  
Is the quality of this written in-depth study report and Evaluation report satisfactory? If not, then why not? (limit: 40 words)**

Yes, the in-depth report and evaluation report is satisfactory.