**Individual In-depth Report**

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**Evaluated by:** [Justin Young](mailto:jtyoun15@asu.edu)

**Date:** 08/31/23

**Tasks Assigned:**

* Review of Classifying Suspicious Content on Social Media Networks

**Summary:**

* The paper focuses on a model for generation of opinions on suspicious and non-suspicious measures for tweets on Twitter and its corresponding classification into these two categories using Sentiment Analysis and Machine Learning algorithms.
* The model is successful in the classification and achieves the same with high accuracy using Naive Bayes and Random Forest Classifier algorithms respectively.
* In the method used, the input chosen for classification takes purely into consideration only tweets posted by accounts which have been previously labeled as suspicious and later suspended by Twitter.
* Thus, the integrity of honest users is not questioned in this paper.
* The method proposed in the paper for classification of tweets involves the steps of data acquisition, preprocessing, sentiment analysis, classification followed by the final evaluation.
* Preprocessing is the most crucial stage of the process, where transparent data is created which could be used for classification of tweets.
* At the evaluation stage, it is obtained from the results that the accuracy of Naive Bayes and Random Forest is 88.06 and 92.59 respectively.
* Apart from this, both the methods have small false negative values, which means that incorrect classification has been successfully avoided in most cases.
* In conclusion, the paper provides in-depth classification results which provides useful information to users that could help them avoid suspicious accounts and tweets on Twitter.

**Outcome:**

This research paper brings into focus methods for successfully classifying content on social media into suspicious and non-suspicious categories, without compromising the integrity of honest users. In addition to this, it provides knowledge to users of social media about fake accounts and spam content.

**References** *(with citation)*  
  
[34] N. A. Ghanem and H. M. Habeeb, "Classifying Suspicious Content on Social Media Networks," 2021 International Conference on Advanced Computer Applications (ACA), Maysan, Iraq, 2021, pp. 171-175

**Evaluation of Report**

**Evaluation summary with justification.**

This report covers the major points given in the article regarding classifying suspicious content on social media and the methods or techniques that can be useful. This report also explains the steps necessary to complete this process proposed in the research.

**The quality of the major result(s) with justification.**  
Results from this research include an in-depth explanation of methods used in machine learning for classifying suspicious content, which are helpful and relevant to the goal of this project. Given in the research as well is an analysis between the Naive Bayes and Random forest classification algorithms with results.

**The usefulness of the paper to the overall project.**   
This paper will provide the project with detailed explanations to methods used in machine learning to classify suspicious content.

**Other comments**

**Evaluation Approval  
  
Evaluation by:** [Justin Young](mailto:jtyoun15@asu.edu) **Date:** 9/1/2023

**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]**

Yes.

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

Yes.

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

Yes.

**Approval.  
  
Approved by:** [Gautham Vijayaraj](mailto:gvijaya6@asu.edu) **Date:** 9/1/2023 **Is the quality of this written in-depth study report and Evaluation report satisfactory? If not, then why not? (limit: 40 words)**

Yes, The report justifies the content of the paper and the quality of this in-depth study report and evaluation report is satisfactory.