Review Form 2

Book Name:	**Scientific Research, New Technologies and Applications**
Manuscript Number:	**Ms_BPR_3442**
Title of the Manuscript:	**A Machine Learning Method for Spam Detection in Twitter using Naive Bayes and ERF Algorithms**
Type of the Article	**Book Chapter**

<mark>**PART 1:**</mark> **Review Comments**

Compulsory REVISION comments	**Reviewer's comment**	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript holds significant importance for the scientific community as it addresses the growing issue of spam detection in social media, specifically Twitter. In an era where social platforms are vulnerable to misuse by cybercriminals, effective spam detection methods are essential to maintain user security and trust. The manuscript introduces an innovative machine learning-based framework that aims to improve classification accuracy using Naive Bayes and Enhanced Random Forest classifiers. I appreciate this work because it not only proposes an enhanced feature set but also evaluates its model with high accuracy, precision, and F1 score, demonstrating a solid approach to tackling an urgent problem.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The title of the article, "**A Machine Learning Method for Spam Detection in Twitter using Naive Bayes and ERF Algorithms,**" is fairly descriptive, but it could be improved for clarity and impact. A more refined title might be: **"Enhanced Twitter Spam Detection Using Naive Bayes and Optimized Random Forest Algorithms"** This title highlights the "enhanced" aspect of the proposed method, which differentiates it from standard techniques and better reflects the novelty and focus on optimized classification approaches.	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract provides an overview of the article, covering the importance of spam detection on social media, the use of machine learning classifiers (Naive Bayes and Enhanced Random Forest), and performance metrics like accuracy and F1 score. However, it could be more comprehensive with a few improvements: **Add Specificity to the Problem Statement:** The abstract briefly mentions spam as an issue but could better define the specific challenges of Twitter spam detection, such as the high volume of tweets and varying spam techniques, to emphasize the problem's relevance. **Clarify the Contribution:** While the abstract mentions that the paper uses Naive Bayes and Enhanced Random Forest classifiers, it should clearly highlight how this approach differs from previous methods or why it is more effective. **Results Summary:** Including quantitative performance outcomes (e.g., specific accuracy or F1 score achieved) would strengthen the abstract, giving readers a quick view of the method's effectiveness. **Refine Language and Flow:** There are some grammatical issues and unclear phrases (e.g., "gobble the information"). Improving these areas would enhance readability.	
Are subsections and structure of the manuscript appropriate?	The manuscript's structure appears generally appropriate, with sections covering the abstract, introduction, objectives, methodology, system design, and results. However, a few structural improvements could enhance readability and flow: **1. Objectives and Challenges:** The manuscript includes separate subsections for objectives and challenges, which is helpful. To strengthen the structure, consider merging them into a section titled "Objectives and Challenges" to consolidate related information and provide a clearer flow. **2. Literature Review (Connected Works):** The "Connected Works" section effectively provides a literature review. However, renaming it to "Related Work" or "Literature Review" might better align with standard terminology and make it easier for readers to understand its purpose. **3. Methodology Section Breakdown:** The "Methodology" section is detailed, but it could benefit from additional subsections to improve clarity. For instance, separate the sections on "Exploratory Data Analysis (EDA)," "Data Preprocessing," "Feature Extraction," and "Algorithm Implementation" to enhance readability and provide a more logical progression. **4. Evaluation and Results:** Ensure that the results section explicitly includes a comparison of metrics (e.g., accuracy,	

	precision, F1 score) in a subsection, such as "Performance Evaluation." This change would improve the focus on the model's effectiveness and make it easier for readers to locate key findings. **5. Discussion Section:** Adding a "Discussion" section to analyze the results in the context of existing literature would enrich the manuscript. This section could also address limitations and areas for future work, enhancing the manuscript's contribution to the field. **6. Conclusion:** The manuscript's conclusion summarizes findings effectively, but expanding it slightly to discuss the broader impact on social media security and potential applications would provide a more comprehensive closure. These adjustments to the subsections and structure would help make the manuscript more cohesive and accessible to readers.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	This manuscript appears scientifically robust and technically sound, as it utilizes well-established machine learning techniques (Naive Bayes and Enhanced Random Forest) for spam detection, which are appropriate choices given their proven effectiveness in classification tasks. The methodology includes essential steps like feature extraction, preprocessing, and evaluation, demonstrating a thorough and systematic approach to model development. Additionally, the use of standard evaluation metrics such as accuracy, precision, and F1 score provides a reliable basis for assessing the model's performance. The manuscript also compares its results with existing approaches, which strengthens the scientific rigor by situating the proposed method within the broader context of related research.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. **-**	The references in this manuscript cover foundational and relevant works, but some could be updated to reflect the most recent advancements in spam detection and machine learning. While the manuscript includes studies from recent years, a few additional references would provide a more comprehensive background, especially considering developments in deep learning and advanced natural language processing (NLP) techniques for social media analysis.	
Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	The language quality of the article is generally suitable for scholarly communication, but it would benefit from revisions to improve clarity, flow, and grammatical accuracy. While the manuscript conveys key ideas effectively, some sentences contain awkward phrasing, minor grammatical errors, and informal language (e.g., "gobble the information"). These issues can detract from readability and professionalism, which are essential in scholarly writing. Suggested Improvements **1. Refine Terminology and Avoid Informal Language:** Use precise, formal language instead of colloquial phrases. For example, replace "gobble the information" with "process the information" or "consume the information." **2. Improve Sentence Structure and Flow:** Some sentences are lengthy and could be broken down for clarity. For instance, rephrasing complex sentences and adding transition words would make the article easier to follow. **3. Proofread for Minor Errors:** Addressing minor grammatical errors, such as subject-verb agreement issues, missing articles, and inconsistent capitalization, would improve the manuscript's overall quality. **4. Enhance Technical Descriptions:** Certain technical explanations could be made more concise and precise to match the expectations of a scholarly audience. With these improvements, the article would align better with scholarly communication standards, enhancing its readability and professionalism.	
Optional/General comments	1. The keywords must be present in the abstract. The authors didn't take care of the keywords. Please revise this keyword. 2. The quality of the abstract is inferior. The author should revise the abstract so that it reflects the theme of the abstract. (Write 1-2 lines about spam in social media and highlight the drawbacks. Then describe your method that is going to solve this problem in brief. Finally, you should describe the accuracy and future directions in brief.) 3. The connected work section is very poor. The authors should rewrite this section. (I. Inuwa-Dutse, M. Liptrott, and I. Korkontzelos [1] presented an innovative method to provide the better way of understanding of the spam users' behavior on Twitter. The main objective of this approach was to differentiate between spam and non-spam social media posts.) 4. The methodology section should contain an abstract overview figure. The methodology part doesn't reflect the proposed method properly. This section described 5. "Fig. 2. Flow of proposed Spam Detection System" wasn't described properly, and its not enough method to represent standard design. 6. The Result and Discussion section is very poor. It should describe the proper explanation and result of every step of the proposed methodology and also comparative analysis with different models as well as different existing works. 7. Conclusion should also improve more to publish this research in a well-established journal like this.	

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

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