

**Leading the Charge: A Guide to Management,
Entrepreneurship and Technology In the Dynamic
Business Landscape**

Edition 1

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Co-Editors

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Pallavi M O and Sumit Singha Chowdhury*



BP International

Leading the Charge: A Guide to
Management, Entrepreneurship
and Technology in the Dynamic
Business Landscape

Edition 1

Leading the Charge: A Guide to Management, Entrepreneurship and Technology in the Dynamic Business Landscape

Edition 1

India ■ United Kingdom



BP International

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***Leading the Charge: A Guide to Management, Entrepreneurship and Technology in the Dynamic
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*An Empirical Study on Millennial's Behavior towards Perception of Investment Avenues with Reference
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Indonesian Politics Articles Hoax Determination on Social Media

Wiwin Windihastuty ^{a*} and Goenawan Brotosaputro ^a

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ABSTRACT

Currently, a lot of news about politics can cause misinterpretation because the news is not necessarily true or a hoax. Hoax is fake news spread to gain trust so that people feel confident the content is true. Another impact of hoaxes can be detrimental to people's emotions and finances. In Indonesia, especially DKI Jakarta, the spread of hoaxes ahead of the general election, between September 2023 and February 2024, is very high. To filter articles on social media, it is necessary to classify political news whether it falls into the hoax or non-hoax category. The hoax classification process uses a preprocessing stage which consists of tokenization and winnowing. Followed by the process of weighting words and Jaccard similarities until the classification process using the N-Gram method can provide accuracy in determining hoax or non-hoax news on social media. The aim of this research is to build a system model that can find political news information. The system will systematically determine news into a predetermined hoax or non-hoax label or category. Using a sample of 200 articles obtained from online social media. The article used is in the form of text without images included. Articles are taken from online social media because a lot of information is spread through social media. The research will be made into two categories or labels, namely hoax and non-hoax. The evaluation results in this research use a confusion matrix, where the precision obtained is 0.90, the recall is 0.78 and the accuracy obtained is 85%. Using the Vector Space Model method and Jaccard stemming, and similarity can make it easier to classify large numbers of articles.

Keywords: Hoax; politics; n-gram; winnowing; Jaccard.

23.1 INTRODUCTION

The rapid development of information and communication technology in global era had a major influence on information. The more human needs for information

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increase, the more information exists, especially through online social media [1]. Online social media is a communication forum that is used for social interaction online. Online social media users can receive information, communicate with each other, interact, share, and do various other activities. Online social media is a technology that can turn communication into interactive dialogue. Some social media that have many users, namely Facebook, Twitter, blogs and others.

Social media is a means for consumers to share text, image, and video information with each other and acts as a medium for disseminating information from various kinds of information that is spread [2]. With the rapid development of information technology, the internet has turned into a source of information that is easy to use and can encourage the dissemination of news articles, both information of factual news and false information or hoaxes. The existence of this hoax news has indeed made online social media users anxious in particular and almost the majority of Indonesian people [3]. The development of information technology has contributed to hoax news spread or information with the aim of creating public opinion, leading opinion, and forming perceptions, for fun that tests the intelligence of internet and social media users [3].

In Indonesia, hoaxes have been rife since 2014, when the presidential election campaign was on social media. Hoaxes are popping up and dropping the image of political opponents, as black campaigns. Based on the annual recapitulation, Kominfo received 733 hoax content complaints throughout 2018 on the instant messaging application. Meanwhile, when viewed from August 2018 to January 21 2019, Kominfo received hoax reports that spread on WhatsApp as many as 43 contents.



Fig. 23.1. Content Complaints, 2018 – 2023

Based on the Directorate of Informatics Application Control monitoring results, most reports occurred in October 2018. There were 16 hoax content spread on the WhatsApp platform. In August 2018 there were reports of two hoax content, in September 2018 there were five hoax content, in November 2018 eight content

reports and in December 2018 as many as 10 hoax content reports. Meanwhile, until January 21, 2019 there were two reports of misinformation content circulating on the Facebook application. Complaints submitted to the Kominfo System are shown in Fig. 23.1.

The Public Relations Bureau of the Ministry of Communications and Informatics explained, the negative content complaints by instant messaging applications in 2018 there were 14 content complaints, in the following year the number of complaints increased to 281 complaints, while in 2023 there were 11.357 reports related to negative content [4].

The purpose of this research is to build an application that can find an article regarding political news information and the system will systematically determine whether the article into a hoax or non-hoax label [5]. The benefits of this research are to provide accuracy in the performance of determining hoax or non-hoax articles on social media and make it easier to label or categorize hoaxes and non-hoaxes on political news articles [4].

23.2 MATERIALS AND METHODS

This study requires a technique or way to find, obtain, collect and record information. In developing this application refers to the waterfall model. There are five main stages in this method. It is called the waterfall model because the stages diagram is similar to a multilevel process. The waterfall model methodology is a model in software planning. The waterfall model is an example of a planning process, where all process activities must be planned and scheduled before being carried out. The stages in the waterfall model are as follows:

1. Analysis

This stage aims to find the needs of users and organizations as well as analyze the existing conditions (before implementing the new system).

2. Design

The design stage aims to determine the detailed specifications of the program components (people, hardware, software, network and data) and information products in accordance with the results of the analysis phase.

3. Implementation

This stage is for obtaining or developing hardware and software (program coding), conducting testing, training and the move to the new system.

4. Maintenance

This stage is carried out when the system is operational. The process of monitoring, evaluating, and making changes if necessary is carried out.

In this study, the authors used the N-Gram method with Winnowing algorithms and the similarity function in Jaccard. Research methodology includes research methods, namely a technique or method used in connection with research conducted and has systematic steps.

The research method concerns understanding the work technique process. The method includes research procedures and research techniques. The method also tries to approach experimental research, by testing the document classification word weights, and then searching effectiveness of the precision basis [6].

Sample is part of the number and characteristics the population possessed or a small part of the population members taken according to certain procedures so that they can represent the population. There are various kinds of sampling techniques to determine which samples can be used in research. To test results effectiveness level of determining articles from a model, the sampling method in this study used the Cluster Sampling method. The sample in this study was 200 articles obtained from online social media sources, namely turnbackhoax.com as a media that validates hoax and non-hoax articles and some from media registered at councilpers.or.id. The article used is form text without images. The reason for taking it from online social media is because a lot of information is spread through social media with the structure of the Indonesian language used. The research plan for the sample will be divided into two categories or labels, namely hoaxes and non-hoaxes.

In a research activity, it is necessary to collect data information and references for materials that can support description and discussion, this makes one of the steps or stages very important in carrying out research activities. The correct data collection technique will produce high credibility data, but if data collection is wrong does not have high credibility. At this stage, news articles on digital media, namely turnbackhoax.com and Dewanpers.co.id, are hoax and news sites with Indonesian language content, by taking a sample of 200 articles from one of the categories on online social media, namely the political category. The 200 articles have been compiled from each article with the aim of facilitating testing of truth and accuracy. Documents used to classify vector space models implement the Nazief and Andriani stemming algorithm and Jaccard similarity function [7-9].

The analytical technique used for this study uses the Nazief and Andriani Stemming Algorithm approach. The design of the model in this study was made to have the following process:

1. The text preprocessing stage, namely carrying out the tokenizing process, stopword removal and the stemming process using the Nazief and Andriani Algorithms.
2. Carry out the weighting process for each word of the article using the Jaccard similarity function.
3. Calculating similarity value process, where to look for differences in the articles owned by a query which includes Nazief and Andriani Algorithms and Jaccard similarity function to calculate the similarity value of the article.

4. Articles Classification model for compiling articles with agreed terms. This prototype model was chosen because it has an appropriate structure for developing a classification model simulation. The article classification prototype that will be made in this research uses a web-based application.

In this study, analyzing the effectiveness level of classification article results, requires a classification model, namely a web-based application that can apply vector space models, Nazief and Andraini stemming algorithm processes and weighting processes based on similarity values. The processes used in determining articles include:

1. Uploading documents
2. Tokenization
3. Removing stopwords
4. Stemming processes
5. Word weighting processes
6. Processes for calculating similarity values

The system testing technique used by the author with following provisions:

1. Precision testing is a comparison of the number of relevant articles obtained by the system with the total number of articles retrieved by the system, both relevant and irrelevant.

Precision : $\frac{\text{The number of articles that are relevant to the query and retrieved}}{\text{The total number of articles retrieved}}$

2. Completeness test (Recall) is a comparison of the number of articles determined by the system with the total number of relevant articles in article collection (collected or not collected by the system).

Recall : $\frac{\text{Number of articles that are relevant to the query and retrieved}}{\text{Number of all relevant articles and collections of articles}}$

23.2.1 Research Steps

Structured research steps can be seen in Fig. 23.2.

23.2.1.1 Problem identification

This stage is research initialization, namely looking for problems encountered in classifying through various political news articles, to be able to understand the conditions of existing problems and conduct literature studies.

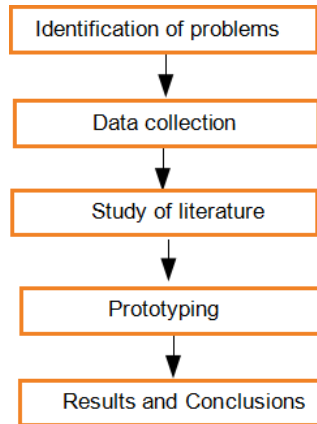


Fig. 23.2. Structured research steps

23.2.1.2 Literature study

This process is carried out by reviewing various previous studies discussing the classification of Indonesian-language articles that have been carried out by several previous researchers, therefore to compare article text of classification using the Nazief and Andriani stemming algorithm, with Jaccard similarity weighting function, it is expected can measure differences and provide efficient and valid results in classifying political news articles.

23.2.1.3 Data collection

Data collection was carried out by retrieving articles on digital media, namely turnbackhoax.com and several media registered at Dewanpers.co.id which is one of several digital media sites that provide articles about news or information needed by information seekers. The data that the researcher will use consists of two categories or labels from political news articles. In the category of political articles, as many as 200 will be taken.

23.2.1.4 Prototype

The determination of hoax articles is a system that aims to classify Indonesian text articles. The stages of the text processing process are carried out by weighting the Jaccard similarity function in each word to each text article so that it can produce similarity in the article. Based on the Jaccard similarity function weighting and the Vector Space Model method with Nazief and Andriani's Stemming Algorithm for article determination.

23.2.1.5 Prototype testing

It can be seen that the determination of political articles in this study has been running effectively and has provided the expected output results. Based on the test results for each label, calculations are carried out to find accuracy using the Jaccard similarity function. The amount of data to be tested in this study is shown in Table 23.1 below;

Table 23.1. Number of article data

Hoax Politics category	Non Hoax Politics category
100 articles	100 articles

23.2.1.6 Findings

The results of manual testing to get things that can affect the truth accuracy, understand the conditions of existing problems and conduct literature studies. The data tested from online media turnbackhoax.com, so it is not certain that all the data tested will be included in the appropriate label. The data that has been tested will affect the classification. The conclusion is that all the data tested has been entered into a label or category, but there are articles that do not match that label or category [10,11].

23.3 RESULTS AND DISCUSSION

In conducting research, the article whose information will be checked for correctness will be carried out in several stages of the process.

23.3.1 Data Grouping, Analysis

In conducting this research, the document articles that will be entered into the system are pre-processed to make the text ready to be processed, this form of text or terms enters the process using the stemming algorithm and weighting words through the Vector Space Model (VSM) in order to get good accuracy and model performance. The data set that will be used consists of one category of political hoax articles with two classes of hoaxes and non-hoaxes, details can be seen in Table 23.2 below:

Table 23.2. Dataset category test

Category	Class Hoax	Class Non-Hoax
Politics	100 articles	100 articles

In Table 23.2 it is explained that political articles have 100 articles labeled hoaxes and 100 non hoax articles. Table 23.2 explains that political articles have 100 articles labeled hoaxes and 100 articles labeled non-hoaxes.

23.3.1.1 Research

The N-gram is used in this study, the process of the winnowing algorithm and the term weighting process of the words resulting from the winnowing process can perform calculations. The results of the distance calculation are used to determine the level of similarity of the document.

23.3.1.2 Data grouping

In this study, a dataset is used as a test obtained from online social media, namely several social media verified by the councilpers and turnbackhoax.id which had previously been taken with a total of 100 hoax articles (false news) and 100 non-hoax articles (fact news).

23.3.1.3 Data analysis research

Data from literature studies or research on determining articles using Jacard similarity and the winnowing algorithm.

23.3.1.4 Stopwords

Stopwords are words that are not pre-processed. The characteristic of stopwords is the high frequency of occurrence, usually in the form of conjunctions or pronouns.

- Article files to be checked for similarity level
- Big Indonesian Dictionary data.
- Term for the process of winnowing

23.3.1.5 System design

The system design process in general for application development consists of several stages, including design.

23.3.1.5.1 Specification design program

In Fig. 23.3, a Class Diagram is shown that used as the main model in modeling class diagrams with the context of its components.

23.3.1.5.2 System process design

The intended process design is how the system will work, the processes used start from the user doing input until the system produces output in the form of a similarity value using Jaccard calculations.

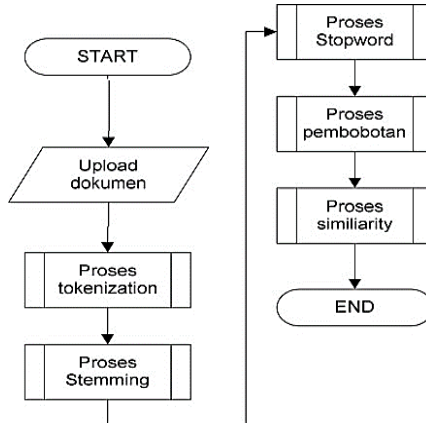


Fig. 23.3. Class diagram

Testing System: Testing is an important thing, testing is used to ensure whether the results of research objectives are achieved or not. The measurement method used a confusion matrix testing method, namely recall testing precision and accuracy by doing 10 (ten) iterations. The following formula used in the measurement is found in the explanation of Fig. 23.4.

		Nilai sebenarnya	
		TRUE	FALSE
Nilai prediksi	TRUE	TP (True Positive) <i>Corect result</i>	FP (False Positive) <i>Unexpected result</i>
	FALSE	FN (False Negative) <i>Missing result</i>	TN (True Negative) <i>Corect absence of result</i>

$$precision = \frac{TP}{TP + FP}$$

$$recall = \frac{TP}{TP + FN}$$

$$accuracy = \frac{TP + TN}{TP + TN + FP + FN}$$

Fig. 23.4. Formula test

Table 23.3. Iteration testing articles

No	Article	NON - HOAX		Result	Relevant
		Value			
		Non Hoax	Hoax		
1	News1	0.017881264	0	News	Yes
2	News5	0.028848609	0.016470699	News	Yes
3	News9	0.099095567	0.024866922	News	Yes
4	News11	0.11579326	0.02205727	News	Yes
5	News15	0.122298652	0.023546996	News	Yes
6	News19	0.089482137	0.021238729	News	Yes
7	News 21	0.176092396	0.032629443	News	Yes
8	News 25	0.139099485	0.024932012	News	Yes
9	News 29	0.098140056	0.043523663	News	Yes
10	News 31	0.054834924	0.028124428	News	Yes
11	News 35	0.019937851	0	News	Yes
12	News 39	0.158025603	0.062726837	News	Yes
13	News 41	0.067437098	0.020422677	News	Yes
14	News 45	0.066908758	0.037428533	News	Yes
15	News 49	0.04333157	0.010620746	News	Yes
16	News 51	0.038649309	0.004440996	News	Yes
17	News 55	0.045423914	0.03994652	News	Yes
18	News 59	0.086057367	0.017102993	News	Yes
19	News 61	0.035391023	0.006487775	News	Yes
20	News 65	0.121607117	0.026275558	News	Yes
21	News 69	0.164812301	0.036134727	News	Yes
22	News 71	0.053984576	0.017102306	News	Yes
23	News 75	0.105728769	0.032538422	News	Yes
24	News 79	0.130938434	0.053881498	News	Yes
25	News 81	0.136057047	0.040870557	News	Yes
26	News 85	0.065611811	0.023540399	News	Yes
27	News 89	0.21356956	0.04042568	News	Yes
28	News 91	0.115937979	0.022599502	News	Yes
29	News 95	0.062889397	0.038507169	News	Yes
30	News 99	0.041215826	0.016071787	News	Yes
				Relevant	30
				Not	0
				Relevant	

HOAX					
No.	Artikel	Value		Result	Relevant
		Non Hoax	Hoax		
1	Hoax 1	0	0.145401737	Hoax	Yes
2	Hoax 5	0.020614924	0.025815217	Hoax	Yes
3	Hoax 9	0.008072286	0.177811231	Hoax	Yes
4	Hoax 11	0	0.022089106	Hoax	Yes
5	Hoax 15	0.058237544	0.035014886	News	No
6	Hoax 19	0.038173715	0.010427494	News	No
7	Hoax 21	0.00680914	0.042578796	Hoax	Yes
8	Hoax 25	0.022419514	0.077745247	Hoax	Yes
9	Hoax 29	0.089517178	0.01533361	News	No
10	Hoax 31	0	0.070920884	Hoax	Yes
11	Hoax 35	0	0.079298918	Hoax	Yes
12	Hoax 39	0.045576875	0.038219314	News	No
13	Hoax 41	0	0.011807283	Hoax	Yes
14	Hoax 45	0.022419514	0.077745247	Hoax	Yes
15	Hoax 49	0.068781853	0.053666002	News	No
16	Hoax 51	0.020169371	0.055202333	Hoax	Yes
17	Hoax 55	0.007321937	0.06345054	Hoax	Yes
18	Hoax 59	0.071848676	0.028648903	News	No
19	Hoax 61	0.13242556	0.061363686	News	No
20	Hoax 65	0.070317104	0.071764524	Hoax	Yes
21	Hoax 69	0.198717784	0.047998212	News	No
22	Hoax 71	0.267043346	0.107720875	News	No
23	Hoax 75	0.002486052	0.021229521	Hoax	Yes
24	Hoax 79	0.112637232	0.034113385	News	No
25	Hoax 81	0.178229318	0.088872666	News	No
26	Hoax 85	0.147664127	0.030322195	News	No
27	Hoax 89	0.120671569	0.088872666	News	No
28	Hoax 91	0.010196978	0.08529875	Hoax	Yes
29	Hoax 95	0.037204472	0.106888488	Hoax	Yes
30	Hoax 99	0.01281125	0.055680547	Hoax	Yes
				Relevant	17
				Not	13
				Relevant	

Distribution of data using the holdout method, namely dividing the number of data for training and using the rest for testing. Data sharing uses a formula of 70% for training and 30% for testing. In this study, testing was carried out using iteration,

so the data division method used was the repeated holdout method for each iteration in the testing process. The repeated holdout method is carried out by repeating the process with different subsamples at each iteration. Before iteration testing and data sharing with repeated holdouts, the authors prepared 200 articles, which consisted of 100 hoax articles and 100 non-hoax articles. In testing hoax and non-hoax labels in each iteration which consists of 70 articles for training data and 30 articles for data testing and the articles tested are different in each iteration using repeated holdout divisions. The following is an explanation of testing iteration.

Table 23.3 shows the results of hoax testing and non-hoax testing. Table 23.3 is a table that explains the results of testing on hoax and non-hoax articles in the first iteration.

The test results of hoax and non-hoax articles are concluded in Table 23.4 below;

Table 23.4. Training accuracy result of hoax and non-hoax articles

		Nilai Sebenarnya	
		TRUE	FALSE
Nilai	TRUE	30	13
Prediksi	FALSE	01	17
Precision	$30/(30+13)$	0.70	70%
Recall	$30/(30+0)$	1.00	100%
Accuracy	$(30+17)/(30+17+13+0)$	0.78	78%

		Nilai Sebenarnya	
		TRUE	FALSE
Nilai	TRUE	17	0
Prediksi	FALSE	13	30
Precision	$17/(17+0)$	0.70	70%
Recall	$17/(17+13)$	1.00	100%
Accuracy	$(17+30)/(17+30+0+13)$	0.78	78%

So the average value of the calculation above is in iteration 1 :

Precision = 0.85 -> 85 %
 Recall = 0.78 -> 78 %
 Accuracy = 0.78 -> 78 %

The test was carried out for 10 iterations continuously. The results of testing as many as 10 iterations are not displayed. The average value of the 10 iterations is shown in Table 23.5 below.

Table 23.5. Average value of test calculations

	Precision	Recall	Accuracy
Iteration 1	0,85 -> 85	0,78 -> 78	0.78 -> 78
Iteration 2	0,85 -> 85 %	0,83 -> 83	0.83 -> 83
Iteration 3	0,82 -> 82	0,76 -> 76	0.76 -> 76
Iteration 4	0,87 -> 87	0,87 -> 87	0.87 -> 87
Iteration 5	0,88 -> 88	0,86 -> 86	0.86 -> 86
Iteration 6	0,82 -> 82	0,81 -> 81	0.81 -> 81
Iteration 7	0,81 -> 81	0,80 -> 80	0.80 -> 80
Iteration 8	0,83 -> 83	0,82 -> 82	0.82 -> 82
Iteration 9	0,81 -> 81	0,75 -> 75	0.75 -> 75
Iteration 10	0,85 -> 85	0,83 -> 83	0.83 -> 83

From the test results with 10 iterations, it can be concluded from 2 (two) sides of the aspect, namely;

1. System Aspect

The system aspect expected a server that supports large data storage to store various data needed to build an article detection system.

2. Management Aspect

The system module produced in this study is expected to be applied to various types of systems for detecting other articles in an institution.

3. Further Research Aspect

Researchers can use the results of this study as reference material for similar studies and become an initial model that can be developed and produce better further research.

23.4 CONCLUSION

In accordance with the discussion, literature study, research review and research methods in classifying hoax articles on social media with Jacard similarity and winnowing algorithms, the conclusions that can be drawn are as follows: (1) Can facilitate the classification of articles that are not quite right, which can lead to miss information for information seekers. (2) Using the N-Gram method with winnowing and Jaccard similarity can facilitate the classification of articles in large quantities and produce a precision value of 0.92, a recall of 0.80 and an accuracy of 87%.

Suggestions for the future, are described as follows; (1) In future research, it is hoped that more training data will be used, so that the similarity value is more precise, the more training data learned, the system will learn the words that are usually found in the document. (2) In related agencies, that are involved in the

dissemination of article information, this classification application can also be used for other articles such as health articles, natural disaster articles, and so on.

CONFERENCE DISCLAIMER

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DISCLAIMER (ARTIFICIAL INTELLIGENCE)

I as the author hereby declare that my article is not entirely a research result not from artificial intelligence.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Maxmonroe. Pengertian media sosial, fungsi, tujuan dan jenis sosial media. 2017;21:7. [Online]. Available:<https://www.maxmanroe.com/vid/teknologi/internet/pengertian-media-sosial.html>
2. Nasrullah, Media Sosial; Perspektif Komunikasi, Budaya, dan Sosioteknologi; 2015.
3. Prasetyo. Klasifikasi Hoax Pada NewsKesehatan Berbahasa Indonesia Dengan Menggunakan Metode Modified K-Nearest Neighbo. 2018;7466-7473.
4. Utami. "Hoax in Modern Politics: The Meaning of Hoax in Indonesian Politics and Democracy," Jurnal Ilmu Sosila dan Ilmu Politik. 2018;22(2).
5. Juditha. Interaksi Komunikasi Hoax di Media Sosial serta Antisipasinya. Jurnal Pekommas. 2018;1(3):31-44.
6. Nurul. Pengaruh media sosial terhadap penyebaran hoax oleh digital native; 2019.
7. Afriza. Metode klasifikasi rocchio untuk analisis hoax metode klasifikasi rocchio untuk analisis hoax rocchio classification method for hoax analysis. 2019;1-10.

8. Subarjo. Literasi Newshoaxs di internet dan implikasinya terhadap ketahanan pribadi mahasiswa. *Journal Ketahanan Nasional*. 2020;26(1).
9. Kai Shu, Amy Sliva. Fake news detection on social media: A data mining perspective; 2017.
10. Mohammad Nur Nobi. Deepfake detection: A systematic literature review; 2022.
11. Trina Nur Faturohmah. Perilaku masyarakat terhadap penyebaran hoax selama pandemi Covid-19 Melalui Media di Indonesia: Tinjauan literatur sistematis. *TIK ILMEU Jurnal Ilmu Perpustakaan dan Informasi*. 2022;6(1):121.

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