Multitek Indonesia: Jurnal Ilmiah
Volume: 20 No. 1, July 2026, Hal. 95 - 103
ISSN: 1907-6223 (print)
ISSN: 2579-3497 (Online)
http://journal.umpo.ac.id/index.php/multitek
https://doi.org/10.24269/mtkind. v20i1.13854

Social Media Comments As Forensic Linguistic Corpus In Cybercrime Handling: A Systematic Literature Review

Mochammad Alif Risqullah[1*], **Mila Rosmaya**[1], **Priati Assiroj**[1]
[1] Politeknik Imigrasi dan Pemasyarakatan Indonesia
Jakarta, Indonesia
Corresponding Author's Email : alifrisqullah14@gmail.com

Received : 10 May 2026 Revised : 14 May 2026 Accepted : 16 June 2026

Abstractc

The rise in popularity of social media has increased the arena for cybercrime activities, especially with the presence of digital comments including hate speech, defamation, and information that may violate the Electronic Information and Transaction Law (UU ITE) of Indonesia. This paper presents a Systematic Literature Review (SLR), using the PRISMA 2020 approach, focusing on forensic linguistic approaches applied on social media comments as a data corpus for cybercrime. Literature reviews have been performed on four different databases, which are Google Scholar, Garuda, Scopus, and DOAJ, from the year 2015 to 2024. Out of 172 reviewed papers, only 18 of them have fulfilled the inclusion requirements. Based on synthesis results, the conclusions are that: (1) the two main approaches used in forensic linguistics are lexical semantic and speech act pragmatics; (2) Instagram is the most explored platform in terms of the corpus of data; (3) most of the papers have mapped the results with UU ITE Article 27, 28, and 45; and (4) there is still a lack in the studies related to multimodality and standardization of digital evidence extraction procedures as legally acceptable evidence.

Keyword: forensic linguistics; cybercrime; social media; UU ITE; PRISMA

INTRODUCTION

The fast development of information and communication technologies has significantly impacted social interaction patterns in today's society. Social media, initially viewed as virtual platforms for communication and self-expression, have evolved into one of the major spheres in which many types of linguistic crimes, otherwise referred to as language crimes, take place. In Indonesia, the large number of social media users provides an important background for discussing cybercrime in digital communication. DataReportal reported that Indonesia had 103 million Instagram users in early 2025, which shows the strong position of Instagram as a digital public space for public interaction [1]. Among other platforms, Instagram is noted as having seen tremendous growth as a digital public sphere, as comment areas of public profiles of politicians, government officials, celebrities, and institutions tend to be major forums for hate speech, defamation, provocation, and distribution of fake information on a massive scale [2],[3].

In terms of Indonesia's national legislation, such conduct is subject to regulation by Law Number 11 of 2008 on Electronic Information and Transactions, amended recently in 2024 (UU ITE). Among others, Articles that are commonly linked to language crimes in social media involve Article 27, defamation and indecency; Article 28, fake news and hate speech based on SARA; and Article 45 as the criminal offense provision. Nonetheless, proving violation of these provisions often encounters challenges as it requires rigorous scientific linguistic analysis to determine if digital speech meets the required criminal characteristics [4].

This is why forensic linguistics emerges as a relevant and crucial area of study. The forensic linguistics is the branch of science that studies languages and language use from a legal perspective. More specifically, forensic linguistics is concerned with the use of language as evidence in the judicial process [5], [6]. In case of cybercrime, forensic linguistics takes on the important task of conducting analysis of digital text, including comments on social media, in order to discover meaning and communicative intent of language utterances and determine their potential legal implications. This involves several types of linguistic analysis, namely semantic analysis of meaning, pragmatic analysis of speech acts and implicatures, and discourse analysis of communication pattern [7].

Despite numerous studies done in this area in recent years, no study exists to date that systematically maps the current research trends on the application of forensic linguistics in analyzing cybercrime in social media comments in both Indonesia and globally. Therefore, based on this knowledge gap, the present research intends to: (1) identify forensic linguistic methods and approaches utilized in the analysis of social media comments as a cybercrime corpus; (2) find out the most studied social media platforms and language crimes; (3) investigate the manner in which linguistic evidence is mapped to relevant legal regulation; and (4) identify research gaps. To achieve this objective, this study adopts Systematic Literature Review approach with PRISMA 2020 protocol guidelines [8].

RESEARCH METHOD

The methodology that is employed in this systematic review is that of the Systematic Literature Review (SLR). PRISMA 2020 has been used as the PRISMA guidelines for the conduct of a systematic review and meta-analysis because PRISMA is designed to enable researchers to carry out transparent, rigorous, and replicable searches to identify, select, and synthesize relevant articles [8]. The problem statement was designed with regard to the elements of the PICO framework of linguistic studies, such that Population is the comments made on digital social media sites; Intervention is the use of forensic linguistic analysis, including semantic, pragmatic, and discourse analysis; Comparison is the legal environment of cyber-crimes (UU ITE dan KUHP); and Outcome is legal implication.

Strategy for Conducting Literature Search

A systematic search of relevant literature has been done using four databases: (1) Google Scholar, (2) Garuda (Garba Rujukan Digital), (3) Scopus, and (4) DOAJ (Directory of Open Access Journals). The timeframe has been limited to 2015–2024 in order to obtain relevant results. Searches were conducted from March to April 2025. Keywords were combined using both Indonesian and English phrases: ("linguistik forensik" OR "forensic linguistics") AND ("media sosial" OR "social media" OR

"Instagram" OR "Twitter") AND ("ujaran kebencian" OR "hate speech" OR "cybercrime" OR "tindak pidana siber") AND ("UU ITE" OR "digital evidence").

Criteria for Inclusion and Exclusion

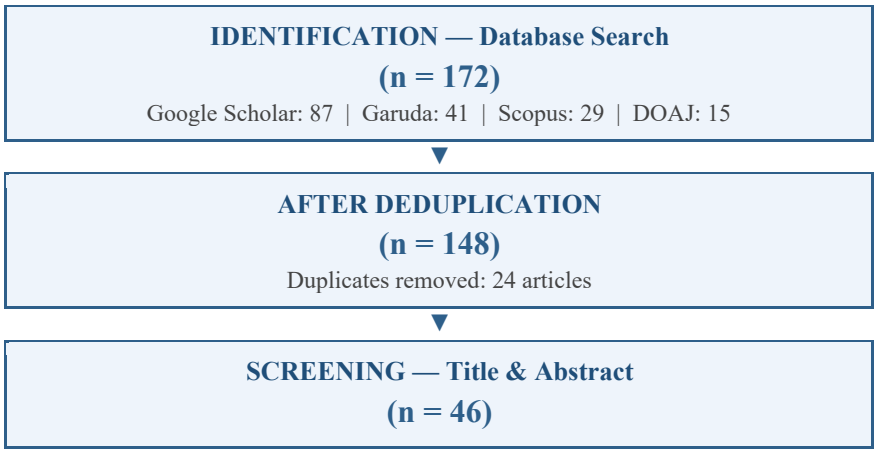
The criteria were used as guidelines when selecting relevant articles. The inclusion criteria included: (1) peer-reviewed journal articles or indexed conference papers; (2) publications between 2015 and 2024; (3) articles written in Indonesian or English; (4) studies with substantial content related to forensic linguistics, digital or social media text analysis, and cyber language crime; and (5) articles available in full text. Meanwhile, the exclusion criteria included: (1) theses, book reviews, opinions, or unindexed reports; (2) publications before 2015; (3) articles written in languages other than Indonesian or English without certified translation; (4) studies that did not substantively discuss language and digital law; and (5) articles available only in abstract form. The inclusion and exclusion criteria are summarized in Table 1 to clarify the selection standards applied in this review..

Table 1. Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Publication Type	Peer-reviewed journals, indexed proceedings	Theses, books, opinions, unindexed reports
Year	2015–2024	Before 2015 or unpublished
Language	Indonesian or English	Other languages without official translation
Topic	Forensic linguistics, digital/social media text analysis, cyber language crime	Does not substantively discuss language or digital law
Accessibility	Full text available online	Abstract only or paywalled

Article Selection Process (PRISMA 2020)

The article selection process followed four major stages of the PRISMA 2020 framework: identification, screening, eligibility, and included studies, as illustrated in Figure 1. In the identification stage, 172 articles were identified from four databases, consisting of Google Scholar (87), Garuda (41), Scopus (29), and DOAJ (15). After removing 24 duplicate articles, 148 articles proceeded to the screening stage. During screening, 102 articles were excluded because they were not relevant to the research topic or did not meet the peer-review requirement. As a result, 46 articles were assessed for full-text eligibility. Of these, 28 articles were excluded because they were outside the required publication period, did not focus on social media, did not discuss legal implications, or were not available in full text. Finally, 18 articles met all inclusion criteria and were included in this systematic review.



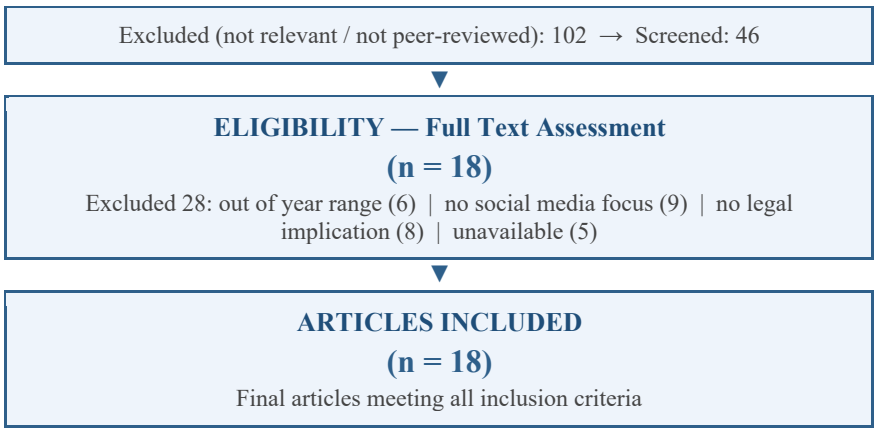


Figure 1. PRISMA 2020 Article Selection Flow Diagram

RESULTS AND DISCUSSION

Features of Selected Studies

In the 18 selected studies, 13 (72.2%) were national studies while 5 (27.8%) were international studies. As for the year of publication, there is an observable surge in the number of articles published after 2021 as there is rising interest in this field because of the effects of the pandemic that drove socialization into cyberspace. Features of the selected articles are shown in Table 2 below.

Table 2. Characteristics of Articles Included in the SLR

No	Author (Year)	Title (Abbreviated)	Platform	Linguistic Method	Legal Focus
1	Ramadani [9]	Hate Speech of Netizens in Instagram Celebrity Comment Columns	Instagram	Lexical Semantics, Speech Act	UU ITE Art. 27(3), 45(1)
2	Suryani et al. [10]	Forensic Linguistics of Hate Speech on Instagram	Instagram	Semantics, Pragmatics	UU ITE Art. 27, 28
3	Putra et al. [11]	Hate Speech in Instagram Comments of DPR RI	Instagram	Lexical Semantics, Speech Act	UU ITE, Decency
4	Pendas [12]	Forensic Linguistics: Hate Speech on Instagram Comments	Instagram	Morphophonemic, Syntax, Semantics	UU ITE & KUHP
5	JIST [13]	Types of Hate Speech in Jokowi's Instagram Comments	Instagram	Hate Speech Classification	UU ITE
6	SOSMANIORA [14]	Hate Speech in Instagram Comment Columns	Instagram	Pragmatics, Speech Act	UU ITE
7	Jurnalista [15]	Political Hate Speech on Twitter (Election 2024)	Twitter/X	Speech Act, Qualitative	UU ITE, KUHP
8	KODE Journal [16]	Hate Speech in the 2024 Election Context	Social Media	Pragmatics, Semantics	UU ITE Art. 28
9	ALFIHRIS [17]	Forensic Linguistics: Hate Speech toward Ameena Hanna	Instagram	Semantics, Implicature	UU ITE
10	Sihite & Adisaputera [18]	Hate Speech in Facebook Comments (DW Indonesia)	Facebook	Pragmatics, Speech Act	UU ITE
11	Widyatnyana [19]	Pragmatic Meaning of Hate Speech on Twitter	Twitter	Pragmatics, Meaning Classification	UU ITE
12	KEMBARA [20]	Hate Speech in Instagram Comments of DPR RI	Instagram	Lexical Semantics, Politeness	UU ITE

13	Ibrohim & Budi [21]	Hate Speech & Abusive Language Detection in Indonesian Social Media	Multi-platform	NLP, Corpus Linguistics	Content regulation
14	Perkins [5]	Application of Forensic Linguistics in Cybercrime Investigations	General (Digital)	Digital Text Analysis	Cybercrime Law
15	Bada & Nurse [22]	Profiling the Cybercriminal: A Systematic Review	General (Digital)	Profiling, NLP	Cybercrime
16	JALT [23]	Linguistic Forensics in Online Defamation: Cross-Platform	Multi-platform	CDA, Corpus, Speech Act	Defamation Law
17	MDPI Electronics [24]	AI in Social Media Forensics: A Comprehensive Survey	Multi-platform	NLP, AI, Corpus	Cybercrime
18	Frontiers CS [25]	Forensic Analysis of Social Media Data in Criminal Investigations	Multi-platform	Digital Forensics, Linguistics	Cybercrime Law

Main Forensic Linguistic Approaches (RQ1)

A closer look at the included literature indicates that the forensic linguistic approaches employed can be divided into three major categories: semantic analysis, pragmatic analysis, and corpus or computational approaches. The lexical semantic approach prevailed, with 15 out of 18 articles using it (83.3%). The analysis centers on the conceptual and contextual meanings of language units, such as words, phrases, clauses, and sentences, that occur in digital comments. This finding is consistent with Mahsun's view that text-based forensic linguistics begins from the idea that texts function like DNA in conventional forensic science, where language units leave traces that can be scientifically analyzed [7].

The pragmatic approach, based on Austin and Searle's speech act theory, was used in 14 articles (77.8%). Illocutionary speech acts, including assertives, directives, expressives, commissives, and declarations, provide a useful tool for identifying communicative intention beyond literal meaning. This approach is important in social media comment analysis because hate speech may appear through indirect or implicative strategies [9], [11]. Corpus-based and computational methods, including NLP and AI, appeared in 5 articles (27.8%). These methods were mostly found in international studies, which indicates a methodological difference between national and international research [21], [24], [25].

The distribution of forensic linguistic methods used in the selected studies is presented in Table 3. The table summarizes the dominance of lexical semantics and pragmatics or speech act theory, while also showing the smaller proportion of computational and integrated digital forensic approaches.

Table 3. Distribution of Forensic Linguistic Methods Used

Forensic Linguistic Method	Number of Articles	Percentage (%)
Lexical Semantics	15	83.3
Pragmatics / Speech Act Theory	14	77.8
Critical Discourse Analysis (CDA)	7	38.9
Conversational Implicature	6	33.3
Corpus / NLP / Computational	5	27.8
Integrated Digital Forensics	3	16.7

Social Media Platforms Used in Study and Types of Language Crime Studied (RQ2)

The most popular platform among the studied research works was Instagram, appearing in 11 (61.1%) articles. The popularity of Instagram cannot be separated from its essence as a visually-based social media with an opportunity to leave comments on open accounts of politicians, state officials,

celebrities, organizations, etc., where all kinds of language crimes happen [11], [13], [12]. Next in line came Twitter/X with 3 articles (16.7%), followed by Facebook with 1 article (5.6%), as well as articles analyzing several platforms simultaneously (2 articles, 11.1%). It means there is a serious platform bias among research objects in the field of national forensic linguistic studies. At the same time, there is an absence of research on such important platforms as TikTok, YouTube, and instant messaging apps like WhatsApp, even though these platforms, too, are popular venues for committing language crimes [24], [25]. As for the types of language crimes studied, hate speech became the most frequent category with 16 out of 18 articles (88.9%), including insulting, defaming, provocations, disinformation, and SARA-related language crimes.

Mapping Forensic Linguistics Findings onto National Law (RQ3)

Among the 18 articles, 16 (88.9%) identified specific provisions of the UU ITE that were potentially violated by the analyzed materials. The most frequently cited provision was Article 28(2), which regulates SARA-based hate speech and appeared in 12 articles (66.7%). This was followed by Article 27(3) on defamation, cited in 10 articles (55.6%), and Article 45 on criminal penalties, cited in 9 articles (50.0%). These findings demonstrate the relevance of forensic linguistics as an analytical tool for identifying potential legal violations in social media comments.

At the same time, it should be noted that most studies only mapped their findings to relevant legal provisions without examining how forensic linguistic analysis could be formally applied in court proceedings. In Indonesia, there is still no standardized national protocol that clearly regulates how forensic linguistic findings may be used as evidence in cybercrime cases, and this remains an important area for further research.

The frequency of UU ITE article mapping in the included studies is presented in Table 4. The table shows that Article 28(2) and Article 27(3) were the most frequently cited provisions, indicating that SARA-based hate speech and defamation were the dominant legal issues discussed in the reviewed literature. It also shows that forensic linguistic findings were commonly linked not only to the UU ITE, but also to related provisions in the KUHP.

Table 4. Frequency of UU ITE Article Mapping in Included Articles

UU ITE Article	Substance	Frequency (n)	(%)
Article 28(2)	SARA-based hate speech	12	66.7
Article 27(3)	Defamation / libel	10	55.6
Article 45(2) & (3)	Criminal penalty for Art. 27–28	9	50.0
Article 28(1)	Spread of false news	6	33.3
KUHP Art. 310/315	Insult / minor defamation	5	27.8

Research Gap Identified (RQ4)

Based on the synthesis of 18 papers, four major research gaps have been identified. Firstly, lack of standardized procedures in conducting digital-linguistic forensics: almost all research studies construct the analytical framework in an ad hoc manner with no references to any existing standardization or protocol, leading to inconsistency in method and decreasing the credibility of analytical results. Formulating SOPs in the digital forensics linguistic analysis becomes a necessity in order to facilitate the implementation of Article 5 of the UU ITE regarding electronic evidence [5], [8].

Secondly, inadequate use of multimodal approach: most of the analyzed research studies are focused solely on verbal texts while social media comments are truly multimodal as they consist of text, emoji, meme image, and GIF. The significance of hate speech conveyed through various combinations of these modalities needs to be analyzed further [24], [25]. Thirdly, bias toward a specific platform or context: Instagram domination in research (61.1%) is indicative of bias towards certain platforms in national research; TikTok, YouTube, and Telegram being severely underrepresented. The importance of studying hate speech made against immigration officials, police officers, or judicial institutions in specific cases also remains under-explored.

Lastly, poor incorporation of the criminal procedure law perspective: despite the majority of studies pointing out the relevant articles in the UU ITE, only a few analyze how linguistic analysis results could be used in terms of criminal procedural laws, especially with regards to proper digital evidence chain of custody as well as the formalized linguistic forensic report accepted by the judicial panel [5].

CONCLUSION

The results obtained show that this Systematic Literature Review has successfully mapped the research area in terms of the use of forensic linguistics as the analysis method to identify the content of cybercrime in social media as a cybercrime corpus. Out of 172 papers obtained through systematic searches conducted in four different databases, 18 papers satisfied the criteria for inclusion and analysis. The key results of the study are: (1) forensic linguistics, especially by using lexico-semantic and speech act pragmatic analysis, was found to be highly effective and applicable as an analytical method in the identification of cybercrime content in social media; (2) Instagram is a prevailing platform as the data corpus source for researching cybercrimes, while hate speech is the prevailing linguistic crime type analyzed; (3) there is high correlation between the results of forensic linguistic analysis and provisions of Articles 27, 28, and 45 of UU ITE, which highlights the considerable potential of forensic linguistics as a tool of proving in cybercrime; and (4) key research needs are a lack of digital-linguistic forensic procedure standardization, multimodal analysis limitation, platform selection bias, and insufficient involvement of criminal procedural law perspective.

According to these results, further research should focus on such aspects as (1) development of a legally integrated digital forensic linguistic methodology; (2) expansion of studies to less-researched social media platforms; (3) development of a multimodal approach in digital forensic analysis; and (4) analysis of the application of forensic linguistic analysis in the Indonesian criminal procedural law. The results obtained from this SLR can be used as guidelines for both researchers and law enforcement officers working on strengthening national forensic linguistic capacity for cybercrime detection.

REFERENCES

[1] S. Kemp, "Digital 2025: Indonesia," DataReportal, Feb. 2025. [Online]. Available: https://datareportal.com/reports/digital-2025-indonesia

[2] F. Ramadani S., "Ujaran kebencian netizen Indonesia dalam kolom komentar Instagram selebgram Indonesia: Sebuah kajian linguistik forensik," AKSARA: Jurnal Bahasa dan Sastra, vol. 22, no. 1, pp. 1–19, 2021. DOI: https://doi.org/10.23960/aksara/v22i1.pp1-19

[3] V. G. R. Putra, A. Febriyatko, and H. Busri, "Hate speech in Instagram comments of DPR RI: A forensic linguistic analysis," KEMBARA: Jurnal Keilmuan Bahasa, Sastra, dan Pengajarannya, vol. 10, no. 1, pp. 173–196, 2024. DOI: https://doi.org/10.22219/kembara.v10i1.28128

[4] Republik Indonesia, Undang-Undang Nomor 1 Tahun 2024 tentang Perubahan Kedua atas Undang-Undang Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik, Lembaran Negara Republik Indonesia Tahun 2024 Nomor 1, Tambahan Lembaran Negara Republik Indonesia Nomor 6905. [Online]. Available: https://peraturan.go.id/id/uu-no-1-tahun-2024

[5] R. C. Perkins, "The application of forensic linguistics in cybercrime investigations," Policing: A Journal of Policy and Practice, vol. 15, no. 1, pp. 68–78, 2021. DOI: https://doi.org/10.1093/police/pay097

[6] P. Kusumawardhani, "Language and forensic linguistics," International Journal of English and Applied Linguistics (IJEAL), vol. 4, no. 1, pp. 48–53, 2024. DOI: https://doi.org/10.47709/ijeal.v4i1.3706

[7] Mahsun, Linguistik Forensik: Memahami Forensik Berbasis Teks dengan Analogi DNA, 1st ed. Depok: Rajawali Pers, 2018. ISBN: 978-602-425-588-6.

[8] M. J. Page et al., "The PRISMA 2020 statement: An updated guideline for reporting systematic reviews," BMJ, vol. 372, Art. no. n71, 2021. DOI: https://doi.org/10.1136/bmj.n71

[9] F. Ramadani S., "Ujaran kebencian netizen Indonesia dalam kolom komentar Instagram selebgram Indonesia: Sebuah kajian linguistik forensik," AKSARA: Jurnal Bahasa dan Sastra, vol. 22, no. 1, pp. 1–19, 2021. DOI: https://doi.org/10.23960/aksara/v22i1.pp1-19

[10] Y. Suryani, R. Istianingrum, and S. U. Hanik, "Linguistik forensik ujaran kebencian terhadap artis Aurel Hermansyah di media sosial Instagram," Belajar Bahasa: Jurnal Ilmiah Program Studi Pendidikan Bahasa dan Sastra Indonesia, vol. 6, no. 1, pp. 107–118, 2021. DOI: https://doi.org/10.32528/bb.v6i1.4167

[11] V. G. R. Putra, A. Febriyatko, and H. Busri, "Hate speech in Instagram comments of DPR RI: A forensic linguistic analysis," KEMBARA: Jurnal Keilmuan Bahasa, Sastra, dan Pengajarannya, vol. 10, no. 1, pp. 173–196, 2024. DOI: https://doi.org/10.22219/kembara.v10i1.28128

[12] A. B. Komara, A. Hasani, and D. Firmansyah, "Analisis linguistik forensik terhadap ujaran kebencian netizen pada kolom komentar Instagram Kaesang Pangarep dan Erina Gudono tahun 2024," Pendas: Jurnal Ilmiah Pendidikan Dasar, vol. 10, no. 3, pp. 200–212, 2025. DOI: https://doi.org/10.23969/jp.v10i3.28328

[13] D. Ferdiansa, M. Darwis, and I. M. Said, "Types of hate speech in Jokowi's Instagram comment column during the PPKM period: Forensic linguistic analysis," Jurnal Indonesia Sosial Teknologi, vol. 3, no. 05, pp. 621–631, 2022. DOI: https://doi.org/10.59141/jist.v3i05.467

[14] S. Syehilla and M. Markhamah, "Ujaran kebencian warganet pada kolom komentar akun Instagram @ahmadsahroni88," SOSMANIORA: Jurnal Ilmu Sosial dan Humaniora, vol. 5, no. 1, pp. 86–98, 2026. DOI: https://doi.org/10.55123/sosmaniora.v5i1.7108

[15] S. Sapar, A. Adam, and R. Rahmatiah, "Analisis ujaran kebencian dalam komentar wacana politik menjelang Pemilu 2024 di Twitter," Jurnal Pendidikan Tambusai, vol. 8, no. 1, pp. 12464–12479, 2024. DOI: https://doi.org/10.31004/jptam.v8i1.14287

[16] D. M. B. Tarigan, S. Monika, A. F. Sauhenda, and W. Wahyuniar, "Ujaran kebencian terhadap capres cawapres pada Pemilu 2024 di media sosial X: Kajian linguistik forensik," Kode: Jurnal Bahasa, vol. 13, no. 3, Sep. 2024. DOI: https://doi.org/10.24114/kjb.v13i3.63699

[17] D. A. Putri, I. Auliyah, and A. N. G. S. Ringo, "Linguistik forensik ujaran kebencian terhadap Ameena Hanna Nur Atta di media sosial," ALFIHRIS: Jurnal Inspirasi Pendidikan, vol. 2, no. 1, pp. 76–81, 2024. DOI: https://doi.org/10.59246/alfihris.v2i1.626

[18] J. Sihite and A. Adisaputera, "Ujaran kebencian dalam kolom komentar akun Facebook DW Indonesia: Kajian pragmatik," Pediaqu: Jurnal Pendidikan Sosial dan Humaniora, vol. 2, no. 3, pp. 12095–12108, 2023. [Online]. Available: https://publisherqu.com/index.php/pediaqu/article/view/318

[19] K. N. D. Widyatnyana, I. W. Rasna, and I. B. Putrayasa, "Analisis jenis dan makna pragmatik ujaran kebencian di dalam media sosial Twitter," Jurnal Pendidikan dan Pembelajaran Bahasa Indonesia, vol. 12, no. 1, pp. 68–78, 2023. DOI: https://doi.org/10.23887/jurnal_bahasa.v12i1.2216

[20] V. G. R. Putra, A. Febriyatko, and H. Busri, "Hate speech in Instagram comments of DPR RI: A forensic linguistic analysis," KEMBARA: Jurnal Keilmuan Bahasa, Sastra, dan Pengajarannya, vol. 10, no. 1, pp. 173–196, 2024. DOI: https://doi.org/10.22219/kembara.v10i1.28128

[21] M. O. Ibrohim and I. Budi, "Hate speech and abusive language detection in Indonesian social media: Progress and challenges," Heliyon, vol. 9, no. 8, p. e18647, 2023. DOI: https://doi.org/10.1016/j.heliyon.2023.e18647

[22] M. Bada and J. R. C. Nurse, "Profiling the cybercriminal: A systematic review of research," arXiv preprint, 2021. [Online]. Available: https://arxiv.org/abs/2105.02930

[23] U. Shamim, S. Khan, and M. Haseeb, "Linguistic forensics in online defamation cases: A cross-platform analysis," Journal of Applied Linguistics and TESOL (JALT), vol. 8, no. 4, pp. 1102–1111, 2025. DOI: https://doi.org/10.63878/jalt1648

[24] MDPI Electronics, "Artificial intelligence in social media forensics: A comprehensive survey and analysis," Electronics, vol. 13, no. 9, p. 1671, 2024. DOI: https://doi.org/10.3390/electronics13091671

[25] Frontiers in Computer Science, "Investigating methods for forensic analysis of social media data to support criminal investigations," Frontiers in Computer Science, vol. 7, 2025. DOI: https://doi.org/10.3389/fcomp.2025.1566513

[26] G. M. Ndungi, L. Chouhan, and F. Etyang, "Systematic literature review on the synergy of social media forensics and mobile forensics in the investigation of cybercrimes," in Springer Proceedings in Mathematics & Statistics, Singapore: Springer, 2024. DOI: https://doi.org/10.1007/978-981-99-9524-0_38