PROSIDING
SEMINAR NASIONAL LINGUISTIK DAN SASTRA (SEMNALISA)
TAHUN 2024
ISSN: 2964-7223

SOCIAL COGNITIVE AFFECTIVE MAPPING OF SOCIAL MEDIA LANGUAGE: A FORENSIC LINGUISTICS STUDY

Polce Aryanto Bessie
Politeknik Elbajo Commodus
Alamat Email: bessiearyanto@gmail.com

Abstrak: Social media language could lead someone in different concepts of an expression. The intention of a facebooker for example could be misinterpreted by public due to different culture or the way to mean something. Therefore, the misperception is going to lead people in crimes. This study focuses on maintaining facebookers' cognitive language be in line with dominant social cognitions. Further, this study provides language evidence on social media that are potential to criminals. In conducting this study, the mix method study was applied. Cognitive Affective Map (CAM) proposed by Thagard (2010) was implemented. Further, the blended theory by Ungerer and Schmid (2006) were the foundation theories in analyzing the data. The result indicates that social cognitive affective mapping could control social media due to the way of expressing one's intention by considering appropriate words in certain context and media with three linguistics points, such as; word's concepts, participants of text and word orders.

Keywords: social media, cognitive, forensic linguistics

Introduction

Communication, language, and texts should always be viewed in the context of society. Texts do more than just record facts about the world; they give it context, sculpt viewpoints, and give the world its own existence. Social media platforms like Twitter, Facebook, and blogs have expanded public communication capabilities, which appears to have altered the interaction between text and ideology as well as between the author and reader. In discursive analysis of social media and online environments in general, the working corpora completeness is a crucial criterion to take into account. As long as the language, which is made up of spoken and written words (films, lives), is only "extracted" from the context in which it was created in order to find meaning, a full viewpoint cannot be discussed. When the analysis object is the online discourse, such as the blog, social media, commercial, administrative, or institutional websites discourse, Marie-Anne Paveau (2012) suggests that four techno-discursive features are worth taking into consideration: (1) delinearization; (2) development or extension; (3) technogenericity; and (4) plurisemiotics.

The concept of delinearization pertains to the presence of hypertext connections that initiate a passage from one text to another that is related to the contents of the original text. This process requires the use of a technique unique to the online environment. As a result, the reader has the option to go from one piece of information on one page to another within the linear thread of the story, news, or information. Thus, techno-words (hashtag, tag) or indicator words (like, love, *haha*, share, react, etc.) or hyperlinks break the linearity in social media. Expansion or refinement of declaratory rights. The only source of communication is no longer the speaker. When analyzing the internet discourse, the most important question to address is "Who is talking?" In social networks, comments—which are occasionally more thorough and illuminating than the initial material provided by the sender—build debate over time. Actually, the writing was done in collaboration.

The term "technogenericity" describes the wide range of discourse genres that emerged, either through "acclimation" or transformation of genres from more traditional communication environments (such as log, private log, comment, etc.) or natively digital (straight into the online environment), such as friendship requests, sharing messages, and posts, which give rise to the so-called reported discourses within the social networks. Even if writing characterizes the online discourse universe (writing is the basis of nearly all of our messages, on the wall), written messages frequently include additional signals, such as photos, symbols, smileys, applause, gifs, drawings, sound, or graphics, and they frequently adhere to predetermined templates.

In social networks, we are dealing with a mix between emitter and receptor, with the writer becoming a writer reader and the reader becoming the writer in turn. As a result, the line between the creator of the communication/content and its user (to use the language of the networks) is erased or reduced in terms of visibility/clarity. Not alternately, but even simultaneously, both roles are taken on and exchanged. Thus, what we have here is a hybrid agent (the term dates back to Marie-Anne Paveau, 2012) that adds different kinds of expression, such as love, astonishment, disappointment, etc., to the materials in order to permanently modify them.

The prevalence of language crime in daily conversations is rising, and it is challenging to eradicate. There have been recent reports in Indonesia regarding language crimes, including hate speech, hoaxes, provocation, slander, defamation, bribery, threats, and so forth, (2019: 5; Sholihatin). Hate speech and defamation are governed under the Criminal Code as well as Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Information and Electronic Transactions. Aside from that, this category also includes Law Number 40 of 2008 with the Elimination of Racial and Ethnic Discrimination and Law Number 9 of 1998 concerning the Freedom to Express Opinions.

Between August 2018 and May 31, 2023, the Directorate General of Information Applications discovered 1,938 instances of hoaxes and 473 incidents of defamation. Language crimes happen not just in the physical world but also online, where people use language to do bad things to other people. Many people thus sound like victims of fraud, harassment, slander, etc. According to McMenamin (2002), forensic linguistics is the study of language used for forensic reasons (legal evidence) in a forensic context. Voice identification, discourse analysis in legal contexts, and interpretation of intended meaning in written and spoken reports (e.g., confessions) are further applications of forensic linguistics.

Evidence and linguistics have a relationship in the legal domain. Consequently, the field of forensic linguistics—a branch of linguistics that focuses on the goals of law in the legal system—was born (Aghagolzadeh, 2010: 425). Using language as evidence in legal proceedings is one of the goals of forensic linguistics, according to Sholihatin (2019: 3). Trademarks, agreements and contract disputes, slander, defamation, insults, and defamation, sedition, conspiracy, bribery, perjury (making false statements or testifying), and dishonest business activities are a few examples. According to Sholihatin (2019: 5), forensic linguistics is the scientific examination of language used in legal evidence with the goal of resolving legal issues to support law enforcement. This demonstrates the significance of linguistics in resolving legal issues.

A wide range of applied linguistics disciplines, including stylistics, phonetics, phonology, graphology, sociology, and sociolinguistics, are incorporated into the study of forensic linguistics. The study of sociolinguistics is the direct source of sociolinguistic profiling. Forensic linguists can identify the author or source of the anonymous text based on the theory that several social elements, such as age, gender, education level, location, and social status, have a significant impact on our language performance. Police need to use sociolinguistic profiling when they don't have any solid theories regarding the author's identity. In this instance, forensic linguists look for language hints to unlock the dispute's enigma. The author's age, gender, socioeconomic background, and geographic area are linguistic hints (Coulthard et al., 2011, p.2).

Every native speaker has a unique language, both when speaking and writing, according to Coulthard (2010). We refer to this as an idiolect. Everybody has a unique vocabulary, accent, lexical and grammatical preferences, and pronunciation. Linguists can quickly identify a person's linguistic fingerprint in this way (p. 22). To put it simply, criminology is the science that investigates the causes, progression, and avoidance of crime. Law and other sciences, including psychology, sociology, biology, and medicine, are used to study crime. It is a science with application.The field is not exclusive (Momeni, 2011, p.733). It requires specialists in several domains. Crimes can be perpetrated in a variety of methods and forms. These days, there are crimes perpetrated online. This calls for the assistance of internet specialists. In actuality, it is challenging to define criminology in a way that is both accepted and thorough.

Certain speech acts are defined by the speaker's intention, or speaker's illocutionary force, while other speech acts are defined by the impact the act has on the listener, or speaker's perlocutionary effect. Every linguistic offense is concerned with the purpose of the speaker. To be guilty of solicitation, one must have planned to commit a crime. The perlocutionary effect of the speech act is the target of other crimes. For instance, even when the speaker intends to threaten, the speech act is not considered threatening if it does not have the impact of intimidating (Tiersma and Solan, 2012, p. 2).

Review of related Literature

"The use of investigative techniques and computer science for legal purposes, including the analysis of digital evidence following appropriate search authority, chain of custody, mathematical validation, tool validation, repeatability, reporting, and potential expert presentation." (Zatyko, 2007) There is considerably more to digital forensics than just laptops and desktops. Networks, "cloud" systems, and mobile devices are all very much part of the field. Analyzing pictures, movies, and audio (in analog and digital formats) is also included. Authenticity, comparison, and enhancement are typically the main topics of this type of analysis.

Social media evidence offers an infinite amount of data that may be mined in almost real-time on the profile of a possible victim or suspect. In general, their activities, geolocation information, contacts, messages, and images are provided in chronological sequence. The network data and metadata—the information that goes with the content—have the necessary capacity to support criminal investigations and validate the evidence gleaned from online social networks (OSNs).

Currently, a significant proportion of severe criminal investigations are required by law to seize and inspect the digital devices used by suspects and victims. The information stored on these devices can be used to locate criminal activity or the user's past online activity. Broadly speaking, Arshad et al. In criminal proceedings, social media is frequently used as evidence. Social media is now frequently used as evidence in criminal investigations, prosecutions, and defenses. Information from OSNs is used by both the prosecution and the defense in court cases. To obtain access to protected social media data, defense attorneys must overcome additional obstacles in their quest for a subpoena from social media corporations.

It is acknowledged that forensic artifacts are an important source of proof on social media. Therefore, the majority of research efforts are concentrated on gathering forensic evidence.

1. Gathering pertinent information or material from various social media platforms is one of the main prerequisites for forensic social media collecting.
2. Gathering metadata from content shared on social media.

3. Verify the data's integrity during the forensic gathering procedure.

Social media sites like Facebook, Instagram, and Twitter are becoming indispensable tools for communication and knowledge sharing. They have a wealth of information that can be used in computer forensics provided digital evidence gathered during cybercrime investigations is handled properly. It's hard to handle this massive volume of info. Every stage of the process presents some difficulties for investigators, whether it is gathering and organizing data, processing it, tracking down the source of social media posts, or keeping the material safe for possible use as evidence. Given the volume of material available on these platforms, it is getting harder and harder to find pertinent content and preserve it in a way that will hold up in court. Forensic data collection, analysis, and preservation techniques for social media are examined in this research. It assesses also how computer forensics investigators manage this data and identify it as possible evidence through online transaction analysis and origin tracking. Suggestions for best practices for maintaining evidence from social media data are included in the report's conclusion.

In the current digital era, social media is connected to numerous criminal activities. Crimes in the past have left evidence in the real world behind. These days, social media accounts, networks, and the digital world still contain evidence. Social media platforms provide a wealth of information about relationships and human behavior. Numerous research examines psychological traits, business trends, and other topics using this data. Even the symptoms of illnesses like depression are found using this data. These websites provide a vast and varied amount of material that supports many academic fields.

A recent development in digital forensics is the collection of social media evidence. 3.196 billion individuals use social media platforms on a regular basis to share facts of their daily life, according to reports from 2018. On occasion, detectives have used information from social media posts about an individual, his transactions, and activities to identify the person who committed a crime. However, using evidence from social media is difficult because of technological and legal concerns with evidence collection, admissibility, and individual constitutional

rights. Another problem is the way evidence is presented on social media. Despite all the issues, social media is already being utilized as evidence in court situations involving insurance, divorce, and custody, and this trend is only growing stronger.

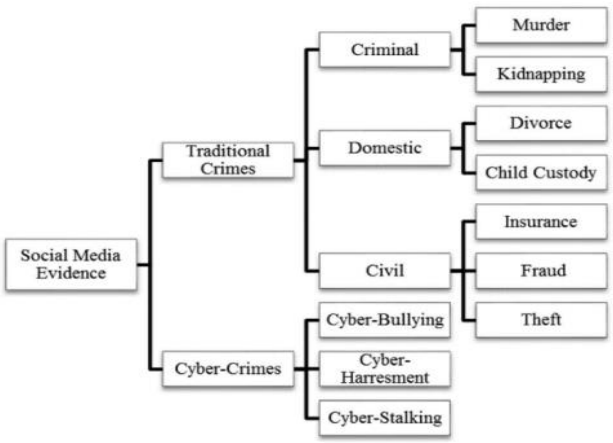


Table 1. Usage of Social Media

Forensic investigators employ a variety of techniques to gather social media data, including automated, hybrid, and manual methods. For large-scale investigations, manual data collection—which requires copying and pasting information from social networking sites—might be more practical but also time-consuming. Every piece of evidence, whether digital or not, has issues with authenticity and validity. It is therefore legally necessary to verify the authenticity and correctness of the uploaded content before using it, just like with any other piece of evidence in court. Technologies for specialized digital forensics are being created; some of these technologies include integrated authentication techniques to ensure admissibility, authenticity, and integrity of data.

According to Marshoud (2023) in *Social Media Data Handling for Forensic* purposes that, in order to guarantee the reliability and integrity of evidence for use in court and during an investigation, social media data preservation is a crucial component of digital forensics. Information from social media platforms is preserved by adopting security measures to prevent loss or change and by maintaining the data in its original state. Social media networks are dynamic, always changing in terms of content and user interactions. When attempting to

preserve social media data, one must take into account the challenges of maintaining the context, timeline, date, and metadata.

Material and Method

Ethnographic methods were applied in this article. Texts from physical and online public spaces, like cyberspace, were gathered for the survey. The posted text in social media were grabbed and classified based on verbal crime indication. In addition, the texts were valued by implementing Cognitive Affective Mapping tool by considering the blended theory. Following the collection of text documents in the image format, the information is arranged linguistically. Apart from that, another crucial factor to take into account while classifying data is the usage of specific terms with negative valences. In implementing blended theory, the specific concepts in cyberspace text were analyzed by considering the meaning behind the texts

Finding and Discussion

Social Cognitive Affective Mapping in Digital Social Media Language

Beyond only laptops and desktops, digital forensics is a far broader field. Networks, mobile devices, and "cloud" technologies are all very much part of the field. It also covers the analysis of audio, video, and picture data (both digital and analog). Typically, this type of study focuses on comparison, improvement, and authenticity. A range of contexts, such as criminal investigations, civil litigation, intelligence, and administrative concerns, can benefit from the application of digital forensics.

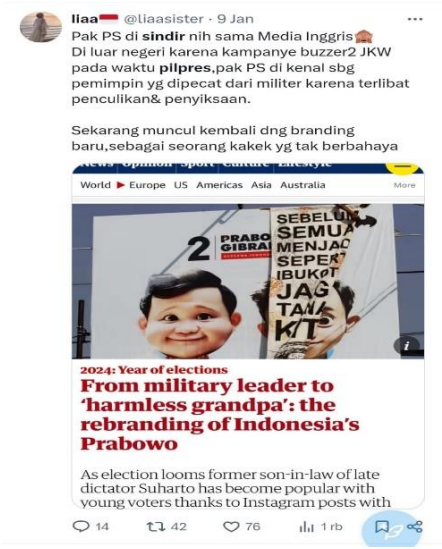
People typically associate identity theft and child pornography with digital forensics when the term is brought up in the context of a criminal investigation. Those two investigations are by no means the only ones, even if they undoubtedly center on digital evidence. In the modern digital environment, practically every criminal inquiry will include electronic evidence. Digital evidence can be found for numerous "analog" crimes, such as burglary, robbery, sexual assault, and homicide.

For occurrences other than legal disputes and national security concerns, digital proof can also be useful. The use of company computers for personal business purposes by an employee while on work time is one example of how policy and procedure violations frequently involve electronically stored information. While the corporation may decide to look into it, it might not be against the law. There are several uses for digital forensics outside of criminal investigations. In the private sector, national and military intelligence operations, and civil litigation, it is frequently employed.

Language usage on social media is very common in Indonesia. Nearly always when people communicate with one another. Their social media accounts are characterized by a variety of posts and uploads that serve as markers for their involvement. This is the primary feature that makes engaging online or in cyberspace a component of contemporary human social life.

Social media accounts on sites like Facebook, Twitter, Instagram, Telegram, and many more are held by people of almost every age. Every one of these platforms offers benefits that collectively create a human behavior pattern in how people engage with one another. Because the communicators originate from two different language environments—for example, English and Indonesian—there is even a jumble of language codes. Even if the person speaking English is from a nation where it is their second language. Naturally, linguistic interference may also occur in the kind of language use.

If language users do not do any self-language filtering, their communication behavior on social media platforms may be detrimental to their language proficiency. I would like to know why language users need to be the first to censor the language they use. Naturally, this is predicated on the fundamental human right—namely, "that communication is the basic right of every human being." Therefore, each and every language user bears responsibility for the accuracy of the language and the content of the material. Professionals and middle-class individuals employ a variety of languages these days to discuss national issues that arise in Indonesia.For Instance,in relation to the putcome of the ballot paper counting for Indonesian presidential election of 2024.



As seen in the post above, Prabowo is the target of a satirical statement intended for him if he runs for president in 2024. According to the post, Prabowo was a military commander before turning into a kind grandfather.

> *Pak PS di sindir nih sama Media Inggris. Di luar negeri karena kampanye buzzer2 JKW pada waktu pilpres, pak PS di kenal sebagai pemimpin yang dipecat dari militer karena terlibat penculikan & penyiksaan.*
> *Sekarang muncul kembali dng branding baru, sebagai seorang kakek yg tak berbahaya*

The account owner purposefully included the word "branding" in the aforementioned quote to imply that Prabowo, the main character in the story, is a fabrication or merely a figure of speech and should not be taken seriously. If the fragment "*Sekarang muncul kembali dng branding baru, sebagai seorang kakek yg tak berbahaya*" is analyzed into Cognitive Affective Map tool then it will show us the social cognitive of the word *branding*.

The term "branding" is highlighted in red in the screenshot above. According to the hypothesis of the Cognitive Affective Map, language users interpret the red hexagon negatively, especially when it comes to word concepts that are used in specific contexts or situations. This indicates that while the term "branding" does have a good connotation, it comes off as mocking when applied to someone in a way that highlights their flaws. In the meantime, yellow rectangles are used to indicate other words in the phrase from above. This indicates that these terms have no social meaning in the community of people who speak Indonesian. Additionally, the number 552 appears in the CAM export results, and it is noticeably higher than the 395, 243, and 91 in the word *sekarang* '*now*', *muncul* '*appearing*' and *kembali* '*return*' as in the following table.

id	title	x_pos	y_pos	width	height	shape
43101	dng branding	552	130	140	75	negative
43100	kembali	395	130	140	75	neutral
43099	muncul	243	131	140	75	neutral
43098	sekarang	91	131	140	75	neutral

Blended Concepts of Social Media Language

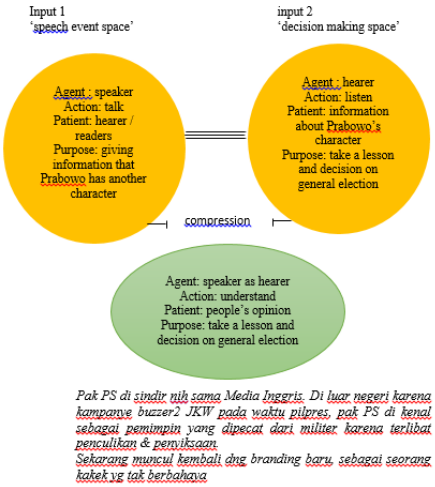
Ungerer and Schmid's (2006) Blended theory is another tool for examining language use on social media. According to this hypothesis, certain words in a phrase may have additional meanings that are consistent with people's social cognition. In one version of the statement "*Yang dibutuhkan Indonesia Adalah PRESIDEN PETUGAS RAKYAT Bukan PRESIDEN PETUGAS PARTAI*" on Facebook account indicates that there are two sorts of President, namely: president of people's officers and party officer president.

That statement demonstrates that there has been a misconception among certain people about the roles and responsibilities of the president, with the belief that the president serves the party's interests exclusively rather than the interests of his constituents. The purpose of this sentence's phrasing is to indicate that the speaker or writer belongs to a group of people who believe that the president should function as an employee of the people, not just one political party.

According to Zaprulkhan (2016) on the philosophy of science, that popular research in this area has focused on the following theories: correspondence theory, coherence theory, pragmatic theory, performitive theory, and consensus theory. The most widely accepted and historical theory of reality is correspondence truth. A proposition is considered true if the information it contains matches the object it refers to. This is the basis of the correspondence theory of truth.

Legal language will unavoidably come up for anyone studying forensic linguistics or language and the law more broadly. When I refer to "legal language," I mean the particular style of writing and speaking that has been established by almost every legal system on the planet. Forensic linguists are often interested in legal discourse, especially in relation to courtroom procedures. The professional participants in this situation—judges and attorneys—usually speak to one another using legalese. The lay public will inevitably encounter legal terminology, whether they are participating as parties, experts, or jurors. This means that in many circumstances, the lay public will need some form of explanation or translation (such as when jury instructions attempt to explain legal concepts in everyday English). When non-lawyers become involved in the legal system and do not speak the court's official language, even bigger issues can occur. Evidently, this necessitates translation or interpretation; yet, it is typically not as simple as translating, example, from English into Chinese; rather, it involves translating legal English into common Chinese. As a result, any court interpreter needs to be fluent in at least one legal language, if not more.

As seen by the concept blending that follows, the term "branding" also refers to other ideas.



As seen in the above graphic, the notion of "branding" refers to the speaker's role as listener and the activity that the word "branding" entails, which is comprehension. Accepting that there are, in fact, characters besides the one under discussion is the desired outcome.

Conclusion

It is clear from the data evaluated and analyzed in the preceding section that language use is significantly impacted by social media. In addition to demonstrating the existence of evolving linguistic phenomena like word writing, language use on social media has an effect on Indonesian legal practice. The Cognitive Affective Mapping tool can be used to determine the errors in language used on social media, and blended theory analytic techniques can be employed to validate the findings. Blended theory demonstrates the intention underlying a literal meaning in addition to the literal concept of language and a method of expression on social media.

References

Coulthard, Malcolm and Sousa, Rui, Silva. (2011). Forensic Linguistics. Universide de Federal de Santa Catarina

Coulthard M, Grant T,and Kredens (2010). Encyclopedia of Forensic Sciences :Law Forensic Linguistics.In:Johnstone B,Wodak R, and Kerswill P (eds) The SAGE Handbook.

Coulthard, Malcolm. (2010). Forensic Linguistics: the application of Language Description in Legal Contexts. Editions de la Maison des sciences de l'homme.

Marshoud Wiam. 2023. Social Media data Handling for Forensic Purposes. s publication at: https://www.researchgate.net/publication/376239260

McMenamin, G., Forensic Stylistics, Elsevier, New York, 1993.

Momeni, Negar (2011). Forensic Linguistics: A Conceptual Frame of Bribery with Linguistic and Legal Features (a Case Study in Iran). International Journal of Criminology and Sociological Theory, Vol.4, No.2, December 2011. 713-744.

Olsson, J. (2004). What is Forensic Linguistics? 1–16.

Sholihatin Endang. 2019. *Linguistik Forensik dan Kejahatan Berbahasa*. Yogyakarta: Pustaka Pelajar.

Solan, Lawrence and Peter Tiersma (2005). Speaking of Crime. Chicago: U Chicago Press. (2012). The Language of the Crime.

Solan, Lawrence and Peter Tiersma http://ssrn.com/abstract=2017652.Brooklyn Law School Legal Studies. March 2012. Research Paper .No.263.

TechTarget. (2007, December). Cloud Computing. Retrieved October 11, 2011, from: http://searchcloudcomputing.techtarget.com/definition/cloudcomputing.

Thagard, P. (2010). EMPATHICA: A computer support system with visual representations for cognitive-affective mapping. In K. McGregor (Ed.), *Proceedings of the workshop on visual reasoning and representation* (pp. 79-81). Menlo Park, CA: AAAI Press.

Tiersma, Peter M, Solan Lawrence M. 2012. "The Language Crime". Brooklyn Law School. Akses. file:///C:/Users/User/Downloads/SSRN-id2017652.pdf 19 April 2024.

Ungerer Friedrich & Schmid Hans-Jörg (2006). *An Introduction to Cognitive Linguistics*. Pearson Education limited.

Zaprulkhan. 2016. *Filsafat Ilmu: Sebuah Analisis Kontemporer*. Jakarta: Raja Grafindo.

Zatyko, K. (2007), "Commentary: Defining Digital Forensics." Forensic Magazine (Feb/March): 1-5.