



Available online:

<http://journal.imla.or.id/index.php/arabi>

Arabi : Journal of Arabic Studies, 10 (2), 2025, 185-197

DOI: <http://dx.doi.org/10.24865/ajas.v10i2.1002>

The Phenomenon of Social Interaction in Arabic Language Content on TikTok: A Netnography Study

Syaiful Mustofa, Faisol, Asrofik, Nida Husnia Ramadhani, Rinda Eka Mulyani
Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia
Corresponding E-mail: saifulmustofa@pba.uin-malang.ac.id

Abstract

Language is reflection of culture. With advancement of technology, interactions not limited to face-to-face communication but also occur online, creating a digital environment. This study aims to explore how netizen interactions (man-to-man) on TikTok shape public perceptions of Arabic language through cultural dimensions, as well as how social media algorithms contribute to the formation of these perceptions (man-to-machine). Using a qualitative critical analysis approach with netnography method, the study examines interactions among netizens in comment sections, revealing two main cultural perspectives: Arabic as a religious language and as a poetic language. NLP-based sentiment analysis shows that Arabic is valued not only for its religious function but also for its beauty. Moreover, human machine interactions via algorithms influence content exposure and shape public perceptions. The findings highlight that public opinion about language is constructed through both social interactions and algorithmic mechanisms, expanding understanding of relationship between language, culture, and media.

Keywords: Arabic Language, Netnography, Social Interaction, Culture

Abstrak

Bahasa merupakan cerminan budaya. Dengan kemajuan teknologi, interaksi tidak lagi terbatas pada komunikasi tatap muka, tetapi juga dapat terjadi secara online, menciptakan lingkungan digital. Studi ini bertujuan untuk menganalisis bagaimana interaksi netizen (antarmanusia) di TikTok membentuk persepsi publik terhadap bahasa Arab melalui dimensi budaya, dan bagaimana algoritma media sosial berkontribusi dalam pembentukan persepsi tersebut (manusia ke mesin). Menggunakan pendekatan analisis kritis kualitatif dengan metode netnografi, penelitian ini menganalisis interaksi di antara netizen di kolom komentar, mengungkap dua perspektif budaya utama: bahasa Arab sebagai bahasa agama dan sebagai bahasa puitis serta estetis. Analisis sentimen berbasis NLP (Natural Language Processing) menunjukkan bahwa bahasa Arab dihargai tidak hanya karena fungsi agamanya tetapi juga karena keindahannya. Selain itu, interaksi manusia-mesin melalui algoritma memengaruhi paparan konten dan membentuk persepsi publik. Temuan ini menyoroti bahwa opini publik tentang bahasa dibentuk melalui interaksi sosial dan mekanisme algoritmik, memperluas pemahaman tentang hubungan antara bahasa, budaya, dan media digital.

Keywords: Bahasa Arab, Netnografi, Interaksi Sosial, Budaya

Introduction

The journey of social media began in 1978 with a platform called MUD (multi user Dungeon) which allowed its users to exchange messages as well as upload and download data. Its development continued into the 2000s with the rise of popular social media platforms such as TikTok, Facebook, LinkedIn, YouTube, and WhatsApp (Luttrell, 2018). WhatsApp has now evolved with the Meta AI feature, where users can not only exchange messages but also access information quickly with the help of AI (Rehman & Khalil, 2024). This transformation shows how technological innovation continuously influences cultural and social dynamics, making social media an integral part of modern life (Pansera, Mario & Fressoli, Mariano, 2021).

Over time, social media has continued to adapt to the era. It has become a space for communities, even among people who do not know each other, as groups of individuals come together based on shared interests whether in support of or against a particular topic. These communities have also managed to create markets by expressing product needs in the comment sections of social media, which are then realized through e-commerce (Valerio, William, & Noémier, 2019). E-commerce is a buying and selling activity that can be carried out without face-to-face interaction, with transactions conducted online or through direct payment upon delivery, known as the COD system. In addition to being a marketplace for goods and services, social media is also rich in both educational and non-educational information. The use of social media as a learning medium enables the development of a learning environment that includes activities such as sharing, expressing, and engaging in knowledge development (Findyartini et al., 2024).

Activities on social media, referred to as engagement, can shape opinions on a particular topic (Trunfio & Rossi, 2021). These opinions may include emotions, thoughts, or ideas. Broadly speaking, netizens' opinions can be categorized as positive, negative, or neutral, which are commonly referred to as sentiment. Sentiment does not only arise in sensitive issues but can also appear in a variety of content topics. One example is Arabic language content. Although it does not necessarily contain controversial issues, in reality, language itself can evoke public sentiment (Wang et al., 2025) because language is a reflection of culture (Wang, Ho, & Cambria, 2020) thus the two share a very close reciprocal relationship. This is similar to the sentiment often found in society regarding the comparison between British and American accents. The American accent is sometimes labeled as a "corrupted" version of British English, whereas in reality, the more flexible nature of American English was shaped by its independently evolving culture, not by any deliberate attempt to distort the British accent (Djurayeva Malika, 2024).

Arabic, as part of the Semitic language family, was first used around 2500 BC. At that time, the regions of Syria, Palestine, Saudi Arabia, and Iraq were inhabited by Babylonians, Assyrians, Chaldeans, Arameans, Canaanites, and Hebrews, whose languages shared similarities (in linguistic systems). These included distinctions in three tenses and words adapted to gender, which eventually classified these languages into the Semitic language family (Hitti, 2024). Since becoming the official language of the Islamic Caliphate, Arabic was then codified into a linguistic system known as nahwu (syntax) and sharaf (morphology). This linguistic framework was first proposed by Alī ibn Abī Ṭālib but became widely known and developed in Iraq, as the region served as a meeting point between Arabs and non-Arabs (Abu Bakar, 2025).

Arabic is fairly well known in Indonesia, mainly because the majority of its population is Muslim, who are at least familiar with the language through daily prayers. Arabic is formally studied in schools and universities, both public and private. Today, the number of Arabic speakers and learners continues to grow. Driven by the widespread use of social media, anyone can become familiar with foreign languages through online platforms. This, in turn, invites netizen engagement whether simply watching, liking, or even commenting. The researcher conducted a study on netizens' opinions about the Arabic language from a cultural perspective through the TikTok platform.

A previous study similar to this research examined perceptions of Arabic *fushā* and *‘āmiyyah* as languages of communication on social media. *‘Āmiyyah* was found to be more widely used because it does not require strict grammar; however, this has led to a decline in young people’s attention toward *fushā* Arabic (Nabilah et al., 2025). Another relevant study focuses on Arabic from the perspective of culture and communication. One example is the word *insān*, which means “human.” The word *insān* is derived from *nasīa–yansā* (نَسِيَ – يَنْسَى), which means “to forget.” From this, it can be understood that human beings inherently possess the trait of forgetfulness (Ajami, 2016).

Most previous studies have focused on comparing Arabic *fushā* and *‘āmiyyah* in digital communication or on linguistic studies and specific cultural meanings. In the field of netnography, research topics are generally limited to sentiment analysis of digital content in a broad sense. This study, however, seeks to explore how netizen interaction and engagement with the cultural aspects of the Arabic language, particularly on popular platforms such as TikTok, shape public sentiment toward Arabic. Therefore, the novelty of this research lies in its approach to linking netizens’ sentiment analysis with the cultural dimension of the Arabic language through social media, offering a new perspective that positions language not merely as a tool of communication but also as a reflection of cultural identity that is perceived, debated, and dynamically interpreted within digital spaces.

Method

This study employs a qualitative critical analysis approach using the netnography method. Netnography is a research method that explores human culture in the digital world. It was first developed in 1995 by Robert Kozinets, a professor at Northwestern University, United States (Kozinets, 2015). Netnography differs from ethnography in that researchers do not conduct face-to-face interactions with participants when collecting data. Furthermore, to obtain the data, the researcher employed observation, interviews, and documentation as data collection techniques. The following are the stages of netnographic research.

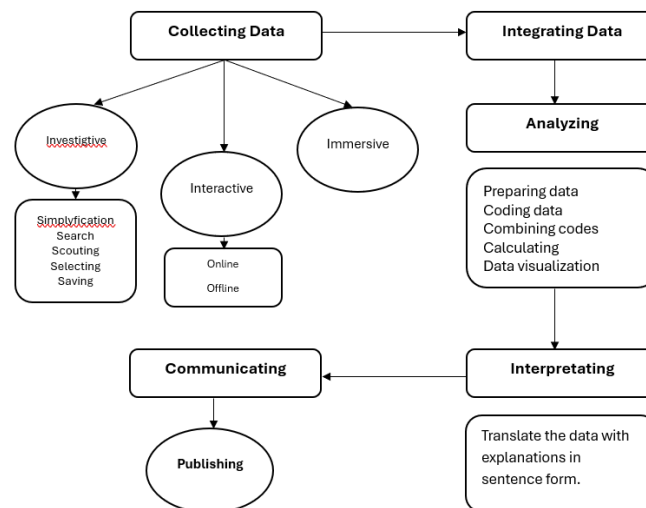


Figure 1. Stages of Netnographic Research

1. Collecting data: The data collection process includes methods similar to those in qualitative research, but with different terms and underlying principles. The first data collection technique is called:
 - 1.1 Investigate which is similar to observation. Investigating consists of five stages, namely:
 - a. Simplification: Simplifying the research questions begins with identifying the keywords. These keywords then serve as a reference point for data collection. The process of searching for data starts by gathering all relevant sites and then narrowing

them down to selected data only. For example, in this study titled “Analysis of Social Interaction in Arabic Language Content on the TikTok Platform: A Netnographic Study”, there are two research questions: first, how human-to-human interaction takes place on social media in Arabic language content; and second, how human-to-machine interaction occurs on TikTok. Based on these two research questions, the identified keywords are interaction, Arabic language, and social media.

- b. Search: Exploring social media is carried out to collect data. Accordingly, data collection began on the TikTok platform using the hashtags *#interaksi*, *#bahasaarab*, *#tiktok*, and *#arabtok* with the help of the Apify application. These hashtags gathered all content tagged similarly, along with usernames and all aspects of user accounts. This dataset was then narrowed down into a more specific topic, where the researcher selected particular content to study, including content related to the perception of Arabic as a religious language, Arabic as a language rich in literary elements, and Arabic as a language considered difficult to learn.
 - c. Scouting: Browsing social media according to the selected type of content involves following the content creators’ accounts, watching their content, subscribing, and exploring the comment sections.
 - d. Selecting: Selecting data is carried out by considering several principles. Relevance means that the data aligns with the research questions and focus. Activity refers to using data that follows current social media trends, rather than outdated posts. Interactivity means that the researcher engages with the data by commenting, discussing, asking questions, and exchanging opinions. Diversity involves considering heterogeneous types of data the more varied, the better the quality of the data for research. Finally, Richness refers to data that is abundant and detailed.
 - e. Saving: saving all of data
- 1.2 Interactive Similar to interviews in qualitative research, in netnography interviews can be conducted either face-to-face or online.
- 1.3 Immersive which a step similar to documentation
2. Integrating data: combining data to answer the research questions.
 3. Analyzing: selecting data to be analyzed, either in whole or in part, through data coding, counting, and data visualization.
 4. Interpretating: interpreting data/deriving meaning from data, such as reading a word cloud and translating the machine’s work that filters word frequency in the comment sections.
 5. Communicating: publication of netnographic research findings.

Result and Discussion

Man-to-Man Interaction

The analysis of interactions between netizens on the TikTok platform can be seen from the likes, comments, and shares of the content (Cheng & Li, 2024). The analysis process begins with data collection, which consists of five steps: simplification, search, scouting, selecting, and saving (Belcastro et al., 2022). The simplification stage involves simplifying the focus of the research so that it becomes more targeted. In this study, the research object selected was Arabic-language content with the aim of understanding man-to-man and man-to-machine interactions on Arabic-language content on the TikTok platform. The second stage is search, which involves searching and exploring social media platforms. In this study, the TikTok platform was used with the hashtags *#Arabictok*, *#Arabic*, and *#Arabiclanguage*. The third stage is scouting, which includes following content creator accounts, watching relevant content, and observing interaction patterns in the comments section. The fourth stage is selecting, which is the process of choosing the most relevant and representative data or sources to answer the research questions. The final stage is saving, which is storing all the data.

The next stage is data integration, which involves combining data obtained from interviews, focus group discussions, and data scraping. The data obtained is then analyzed using Python. At this

stage, the researcher uses the Long Short-Term Memory (LSTM) algorithm. The LSTM algorithm is one of the RNNs (Recurrent Neural Networks) that is popularly applied in Natural Language Processing to analyze sentiment in sentences (Asri et al., 2025). The LSTM algorithm is used to process English data, while Arabic data is processed using Camel Tools.

Data processing began with data cleaning. Initially, the data categories obtained included time, user profiles, avatar thumbnails, comments, and others. However, the researchers deleted all data and only left the comments as data to be analyzed. The results of the data analysis were then interpreted through word clouds, word frequency tables before and after data preprocessing, and sentiment analysis results. A word cloud is a visualization of words mentioned in the text based on their frequency of appearance; the larger the word appears, the higher its frequency of appearance.

Word clouds are used to identify the themes or topics of the analyzed content. Word frequency tables are presented to view the data before and after preprocessing (Giannoulakis & Tsapatsoulis, 2021). Meanwhile, sentiment analysis diagrams are used to view netizens' opinions on the analyzed content. The interpretation of the analyzed data is grouped as follows:

1. Arabic is the language of religion

As a country with a Muslim majority, Indonesians are quite familiar with Arabic (Kaptein, 2017). It is because of the position of Arabic as a liturgical language (Haque, 2020). In general, Arabic shapes culture through its role as the primary language of Muslims, connecting religious, social, and academic communication both in the Arab world and in non-Arab Muslim countries. This is evident in how Classical Arabic (*fiṣḥā*) reflects Arab culture, identity, and history, while the vernacular (*‘āmiyyah*) reflects the dynamics of modern Arab culture, where language serves as a means of communication as well as a mirror of social change (Yoyo, Mukhlis, Thonthowi, & Ferawati, 2020).

Many schools, not just madrasas, offer Arabic language classes. Universities in Indonesia, especially UIN, have Arabic language departments in both education and literature. However, despite their familiarity with Arabic, Indonesians lack a critical attitude towards Arabic narratives and literature. For example, in the tradition of *majlis shalawāt*. *Majlis shalawāt* is often held in Indonesia as a gathering to recite *shalawāt* together with the aim of glorifying the figure of the prophet and remembering his *da'wah* (preaching). However, as shown in a study conducted by (Ramadhani, Mulyani, Abdullah, & Iqlima Aristania Rada, 2025) on the Indonesian people's perception of *majlis şalawāt*, the community still considers the songs performed in *majlis şalawāt* to be Islamic hymns, even though they are not actually Islamic songs.

The researchers examined POV content from TikTok that tells the story of someone raising their hands when listening to Arabic words, even though those words were actually an expression of frustration. This content represents the phenomenon of the perception of Arabic as a religious language, where whatever form the words take, they are considered religious expressions. To determine public sentiment, the researchers collected data from the comments section.



Figure 2. Wordcloud on content arabic is the language of religion

Based on the word cloud visualization in the image you attached, there are two parts that show the frequency of words before and after preprocessing. Before preprocessing, the word Arabic was the most frequent word, followed by the word language. After preprocessing, these two words remained the most frequent words. Therefore, it can be concluded that the content focuses on the Arabic language.

Furthermore, in the word cloud before and after preprocessing, there are several words related to religious aspects, such as Islam, Christianity, Quran, Bible, etc. Therefore, it can be concluded that the topics in these contents are related to Arabic and religion. However, there is a difference in the frequency of words, where words related to Islam have a higher frequency. Therefore, it can be concluded that netizens' perception of Arabic is related to the language of Islam.

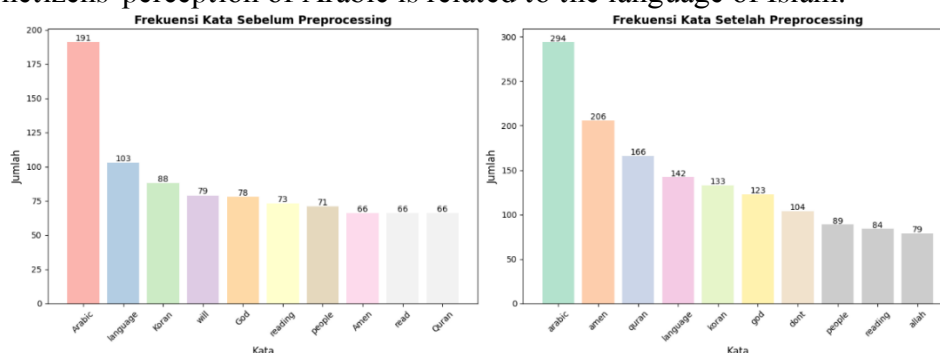


Figure 3. Word frequency chart

Next, researchers compiled a dictionary of words used to analyze netizens' sentiments. The dictionary was divided into two categories: negative words and positive words. The negative words were determined based on netizens' religious responses to Arabic content that did not contain any religious elements. It can be said that these comments contradict the content. Meanwhile, the positive word dictionary was determined based on words that show tolerance or lead to the understanding that Arabic is a language of communication.

The negative word category includes: *ameen*, *amiin*, prayer, prayers, praying, *dua*, *aamiin*, *aaaaammmmiinnnnnnnn*, *ameccccennnn*, *lā ilāha ila Allah*, Islamic, islam, *shalawāt*, *bismillah*, religion, qur'an, confused. Quran, heard during *eid*, *eid*, mosques, mosque, *ramadan*, *salawatan*, *Allahuakbar*, goosebumps, *salawāt*, *takbīr*, may peace and blessings of Allah, religious, *māsyāallah*, *subhānallah*, *allahuakbar*, *lāilāhaillallah*, koran, calm, *tajwīd*, *tajweed*, qalqalah *tilāwatil*. Positive word categories include: understand, sad, it's Arabic, not Islamic, not religion, no religion, learning Arabic, don't understand, tolerance.

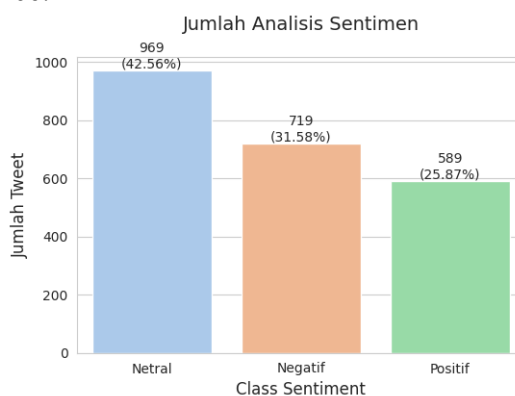


Figure 4. Sentiment analysis chart

Based on the diagram above, it can be seen that the majority of netizen comments are neutral on Arabic language content and its connection to certain religions. The sentiment distribution shows that the majority of comments have neutral sentiment, with 969 comments (42.56%), followed by negative sentiment with 719 comments (31.58%), and positive sentiment with 589 comments (25.87%). When linked to the previous word cloud, it can be assumed that most netizens discuss Arabic and religious aspects without showing a tendency towards a particular religion. Meanwhile, the high percentage of negative sentiment may be due to the presence of words associated with certain religious terms. In other words, there are quite a number of comments that contain perceptions of Arabic-language content that tend to be associated with religious elements,

particularly Islam. Meanwhile, positive sentiment reflects netizens who view Arabic from the perspective of learning and foreign languages.

Sentiment towards Arabic as a religious language is formed from the natural nature of religion that exists in society, which is not only individual but also collective (Truna, 2024). This religious sentiment arises from social interactions that shape a shared awareness of the role of Arabic in religious life. Based on the results of a focus group discussion with a social observer (DR, personal communication, 4 Agustus 2025), sentiment towards Arabic generally leans towards its identity as a religious language, particularly Islam. This is because Arabic is used in Islamic worship practices and is the language of the Qur'an, which is the main source of Islamic teachings. Therefore, it is natural for many people to view Arabic as a religious language, especially one that is synonymous with Islam.

2. Arabic is a Poetic Language

Based on ethnographic research, the researcher conducted a search using the hashtags #arabic #poetry. The researcher selected one creator who focuses on Arabic poetry content, namely WissamKdouh, who has 609.6 thousand followers and a total of 6.9 million likes. The wissam account actively shares poetic Arabic posts accompanied by English translations for non-native viewers. The popularity of Arabic poetry content is accompanied by the rampant trend of Arabic we don't say throughout 2024 on the TikTok and Instagram platforms.

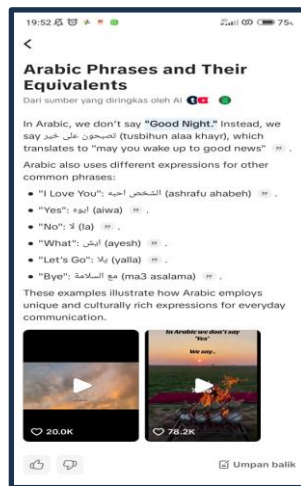


Figure 5. Example of Arabic content

In order to read the communication patterns of netizens, researchers took a sample of comment columns to be analyzed using NLP algorithms in Python programming. The program used to analyze the dataset was Camel Tools. Camel Tools is an open source Python toolkit specifically designed for natural language processing (NLP) for the Arabic language. There are several features that can be used in Camel Tools to analyze Arabic text. The first is the installation of the Camel Tools program and its packages linked to Gdrive. Then, after the data scraping process, the data must first be cleaned by removing emojis and punctuation marks. The cleaned data is then entered into the tokenization process, which is the process of breaking sentences into small units in the form of words. Arabic does not recognize capital and small letters, so case folding is not done here. The fourth step is the word analysis process using a morphology database. Arabic is a complex language with many word variations. Therefore, morphological analysis is very important at this stage. In addition to morphological analysis, Camel Tools can also estimate the dialect of the text, whether it is Egyptian, Levantine, Sudanese, and so on. Based on the results of the Camel Tools analysis of native speaker comments, the following data analysis results were obtained:

- a. Prediction of speaker dialect in 1440 data (comments) in content themed Arabic as a poetic language:

Country prediction	Number of speakers	Percentage
Egypt	70	4,8%
Saudi Arabia	300	20,8%
Modern Standard Arabic	70	4,8%
Saudi Arabia	300	20,8%
Qatar	200	13,8%
Oman	200	13,8%
Sudan	30	2,8%
Syria	50	3,4%
Iraq	70	4,8%
Libya	40	2,7%
Palestine	20	1,3%
Jordan	50	3,4%
Tunisia	20	1,3%
Yemen	10	0,7%
Morocco	10	0,7%
Total	1440	

- b. sentiment of comments

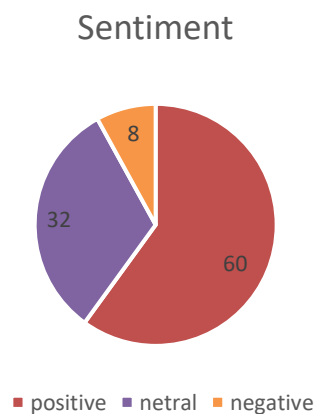


Figure 6. Sentiment analysis chart

The positive sentiment in this poetic Arabic content can be interpreted as a positive response that validates the culture of poetry among Arab communities to this day and an expression of admiration for Arabic poetry. This is in line with the findings of Middle Eastern historian Philip K. Hitti in his book *History of the Arabs*, which recounts the long history of Arabic literary development (Hitti, 2024). Before Islam entered the Arab region, poetry had become a culture and an exciting competition among the people at that time. The most popular was the *Ukāz* festival. The *Ukāz* festival was an annual literary festival held on 15-30 *Dhu al-Qa'dah* (a holy month during which warfare was prohibited) in the *Ukāz* market. The *Ukāz* market was located in the Hijāz region and was the center of trade for pre-Islamic Arab society. This literary festival produced *mu'allaqāt*, which were the best poems hung with gold cloth on the *Kaaba*. The development of Arabic literature then became massive with the emergence of Arab writers.

Not only did it receive comments from native speakers, but there were also comments from non-native speakers in English. This data was processed using LSTM as was done with the previous data.



Figure 7 Wordcloud on content arabic is poetic language

Based on the word cloud visualization before and after the data preprocessing process, the words “Arabic” and “Love” appear as the most dominant words. Next, followed by words such as beautiful, beauty, heart, poetry, romantic, which lead to an appreciation of beauty. Moreover, the appearance of words such as want, miss, feel, hear, say, and thank reinforces the impression that the content topic being analyzed is poetic and romantic. The frequency of these words shows that Arabic is not only a language used as a tool for communication, but also a language that has aesthetic value and beauty.

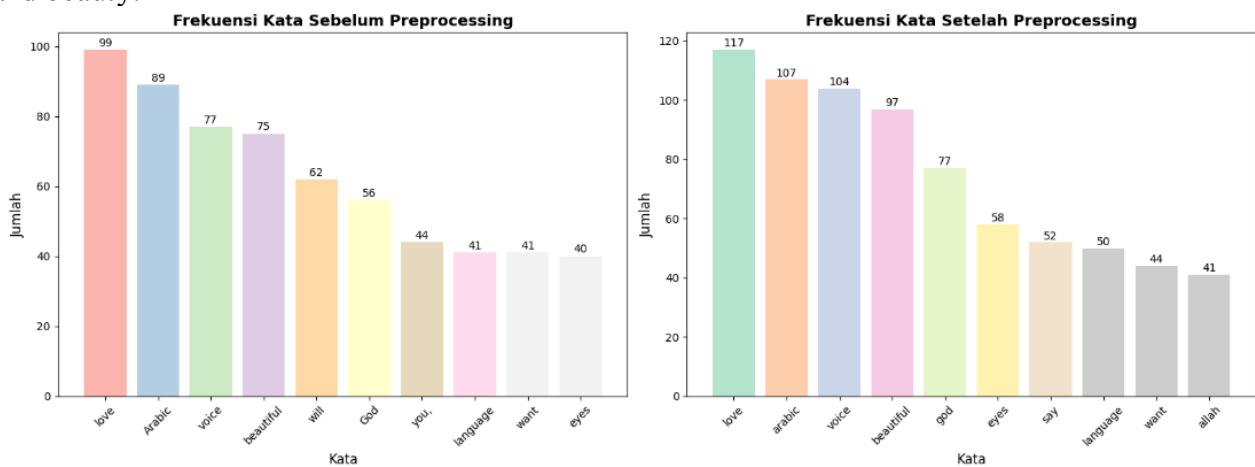


Figure 8. Word frequency chart

Furthermore, a dictionary of positive words was determined based on appreciative words, words of liking, and words that contain positive connotations, including: beautiful, love, sweet, poetry, enjoy, happy, *māshā allah*, poets, wonderful, bless, romantic, *alhamdulillah*, adore, liked, amazing, *māshā allah*, bravo, great, cool, gorgeous. In addition, a dictionary of negative words was also compiled based on feelings of dislike, rejection, and unpleasantness, such as: can't, don't, bad, sad.

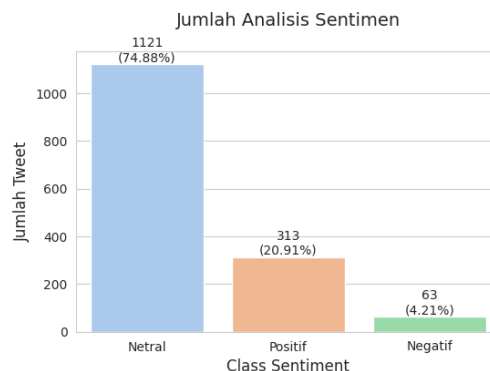


Figure 9. Sentiment analysis chart

The topic “Arabic is a poetic language” tends not to contain any particular sentiment. Literary studies can indeed contain emotional meanings that have the potential to evoke sentiment, if the reader is able to understand the meanings contained within. However, in this context, the majority of TikTok social media users are not readers who have a deep understanding of Arabic literature, so

the sentiment that arises in content with the theme “Arabic as a poetic language” tends to be dominated by the neutral category.

Content containing poetic words, such as the content above, received 1,121 neutral comments or 74.88% of the total data because many of them were misguided by the sound or romanticism of the content. Therefore, in the word frequency table, the word “voice” appeared in the top three frequencies. Many netizens tend to use language that does not clearly show positive or negative emotions. Many of them comment only using emoticons, which are then assessed as neutral comments in the analysis. Furthermore, there were also quite a lot of positive comments, namely 313 comments or 20.91%, reflecting netizens who consider Arabic to be a language with aesthetic, beautiful, and poetic value. In last place, there were also several negative comments indicating difficulties or unpleasant views on the content, amounting to 63 comments or 4.21%.

Man-to-Machine Interaction

Social media is a digital world consisting of hardware, software, networks, systems, and metadata from many sources (Borgman, 2015). Due to the large amount of data and information in the digital world, a sorting process is needed to explore the sea of data organized in algorithmic systems (Alaimo & Kallinikos, 2021). Users can efficiently access the information and products they are interested in (Hassenzahl, 2018). At the same time, selective Big Data management will continue to generate information that is consistent with users' habitual behavior on social media platforms (Rodilloso, 2024).

In the social media environment, interactions are not only between humans, but also between humans and machines. Machines will work to meet the needs and desires of users based on recorded habits. The source explained that to understand how machines work, one approach is to study their algorithms, for example through sentiment analysis and various other methods. In addition, there are various tools and programming languages that can be used to observe and test the working mechanisms of machines, including Python programming and the Orange application (ZA, 2025).

For example, if someone views content on a particular topic for a certain amount of time, the system will record this activity as content that is interesting to the user. If the user likes the content, the level of engagement will increase, and will be even higher if accompanied by comments. Based on this data, the machine then supplies content that matches the user's interests through a mechanism called an algorithm. An algorithm is a system that attempts to fulfill the content preferred by users (AS, 2025).

According to Sigit and Rosie, an algorithm is a procedure with several steps for calculation, automatic reasoning, and data processing. The procedure will produce logic and a series of instructions in software and is effectively created to produce a function (Sigit, Anamisa, Devie Rosa, & Mufarroha, Fifi Ayu, 2022). Another opinion states that an algorithm is a grouping and method containing software engineering that aims to create computational thinking so that it can be used in algorithmic and systematic problem solving (Nengsih et al., 2022). A social media algorithm is a complex engineering system on a platform to determine what content will be displayed to users. In its implementation, social media platforms select the information received by users through their sorting algorithms. These algorithms filter a large amount of available information and present the information that is expected to be most interesting to users (Iyengar & Hahn, 2009).

With algorithms, machines will tend to display similar content themes or topics. This pattern shapes certain perceptions in users' social lives, but at the same time does not display the diversity of information that actually exists, resulting in limited user perspectives. This is in line with the opinion of Han et al., who state that interactive recommendation system algorithms will filter out content that users are not interested in and filter out content that matches users' interests. Thus, users are narrowed down to one or a limited number of topics for about 7 days. The phenomenon of narrowed topics is considered to be the emergence of “filter bubbles” (Han et al., 2022).

Filter bubbles are a social filtering mechanism and a technological filtering effect driven by coexisting algorithms. According to Pariser, filter bubbles play a role in shaping opinions and encouraging polarization on social media (Del Cerro, 2024). Filter bubbles operate differently for each social media platform, but they all follow the principles of selective exposure and personalization (Bozdag, 2013). Initially, filter bubbles will limit users' exposure to cross-field content, and later they will also limit content that may not match the user's point of view (Bozdag, 2013). This explanation is reinforced by Figa's view that filter bubbles describe a form of exclusive intellectual isolation that aims to strengthen the exposure of online information from the perspective of individual users (Talamanca & Arfini, 2022).

Conclusion

Based on the analysis of interactions among netizens (man-to-man interaction), this study shows that perceptions of the Arabic language on TikTok, formed through user engagement in the comment section, resulted in various opinions that can be narrowed down into two culture-based perspectives. Sentiment analysis conducted using an NLP approach revealed that many netizens perceive Arabic as both a religious language and a poetic one. In content where Arabic is perceived as poetic, it appears that the language is not only associated with religion but also valued for its aesthetics and beauty. Thus, this study demonstrates that social media serves as a space where Arabic is interpreted in diverse ways, ranging from religious to aesthetic dimensions.

On the other hand, man-to-machine interaction highlights the role of social media algorithms in shaping users' patterns of information consumption. Algorithms generate recommendation systems and filter bubbles that expose users to homogeneous content aligned with their preferences and interaction history. This phenomenon can narrow users' perspectives while reinforcing specific perceptions of Arabic and related content. Therefore, this study emphasizes that public opinion on social media is shaped not only by interactions among users but also by algorithmic mechanisms that regulate the flow of information. This opens further research opportunities to explore how human-machine interactions simultaneously construct social understandings of language and culture in digital spaces.

References

- Abu Bakar, J. (2025). *Sejarah Lengkap Mazhab-Mazhab Nahwu* (1st ed.). DIVA Press.
- Ajami, H. (2016). Arabic Language, Culture, and Communication. *International Journal of Linguistics and Communication*, 4(1).
- Alaimo, C., & Kallinikos, J. (2021). Managing by Data: Algorithmic Categories and Organizing. *Organization Studies*, 42(9).
- Asri, Y., Kuswardani, D., Ramadhana, S. A., TS, J. F. P., Marbun, D. U. N., Fatimah, F. N., & Qoriza, Z. (2025). *Optimalisasi Analisis Sentimen dengan Spelling Corrector*. Uwais Inspirasi Indonesia.
- Belcastro, L., Cantini, R., Marozzo, F., Orsino, A., Talia, D., & Trunfio, P. (2022). Programming Big Data Analysis: Principles and Solutions. *Journal of Big Data*, 9(1).
- Borgman, C. L. (2015). *Big Data, Little Data, No Data: Scholarship in the Networked World*. Retrieved from <https://direct.mit.edu/books/monograph/3085/Big-Data-Little-Data-No-DataScholarship-in-the>
- Bozdag, V. (2013). Bias in Algorithmic Filtering and Personalization. *Ethics and Information Technology*, 15(3).

- Cheng, Z., & Li, Y. (2024). Like, Comment, and Share on TikTok: Exploring the Effect of Sentiment and Second-Person View on the User Engagement with TikTok News Videos. *Social Science Computer Review*, 42(1).
- Del Cerro, C. C. (2024). The Power of Social Networks and Social Media's Filter Bubble in Shaping Polarisation: An Agent-based Model. *Applied Network Science*, 9(1).
- Findyartini, A., Greviana, N., Hanum, C., Wiyarta, E., Novariant, J. K., Nugroho Supranoto, Y. T., ... Atta, K. (2024). "How is Social Media Used for Learning?": Relationships between Social Media Use by Medical Students with their Self-regulated Learning Skills. *BMC Medical Education*, 24(1).
- Giannoulakis, S., & Tsapatsoulis, N. (2021). Topic Identification via Human Interpretation of Word Clouds: The Case of Instagram Hashtags. In I. Maglogiannis, J. Macintyre, & L. Iliadis (Eds.), *Artificial Intelligence Applications and Innovations*. Cham: Springer International Publishing.
- Han, H., Wang, C., Zhao, Y., Shu, M., Wang, W., & Min, Y. (2022). SSLE: A Framework for Evaluating the "Filter Bubble" Effect on the News Aggregator and Recommenders. *World Wide Web*, 25(3).
- Haque, S. (2020). Language Use and Islamic Practices in Multilingual Europe. *Signs and Society*, 8(3).
- Hassenzahl, M. (2018). The Thing and I: Understanding the Relationship Between User and Product. In M. Blythe & A. Monk (Eds.), *Funology 2: From Usability to Enjoyment*. Cham: Springer International Publishing.
- Hitti, P. K. (2024). *History of the Arabs* (10th ed.). Penerbit Qaf.
- Iyengar, S., & Hahn, K. S. (2009). Red Media, Blue Media: Evidence of Ideological Selectivity in Media Use. *Journal of Communication*, 59(1).
- Kaptein, N. J. G. (2017). Arabic as a Language of Islam Nusantara: The Need for an Arabic Literature of Indonesia. *Heritage of Nusantara: International Journal of Religious Literature and Heritage*, 6(2).
- Kozinets, R. V. (2015). *Netnography: Redefined* (2. ed). Sage.
- Luttrell, R. (2018). *Social Media: How to Engage, Share, and Connect*. Rowman & Littlefield.
- Malika, D. (2024). A Comparative Analysis of British and American English. *International Scientific Journal (Modern Science and Research)*, 3(9).
- Nabilah, N., Mufidah, H. N., Nafisah, S., Baihaqi, M., Nuha, A. N. U., & Sa'adi, Z. R. (2025). The Influence of Social Media on Arabic Language Change in Online Communication. *Arabi : Journal of Arabic Studies*, 10(1).
- Nengsih, Y. G., Jamaludin, J., Tachjar, N. K., Hardiyana, B., Widiatama, Y., Ridwan, M., & Hidayat, T. (2022). *Konsep Algoritma dan Pemrograman: Mengenal Konsep Dasar dan Praktis dalam Bahasa Pascal dan C*. Indie Press.
- Pansera, M., & Fressoli, M. (2021). Innovation without Growth: Frameworks for Understanding Technological Change in a Post-growth Era. *Organization*.
- Ramadhani, N. H., Mulyani, R. E., Abdullah, M. Y., & Iqlima Aristania Rada. (2025). Misreading the Sacred? A Netnographic Analysis of Youth Reception of Arabic Songs in Shalawat Majlis. *DINIKA : Academic Journal of Islamic Studies*, 10(1).

- Rehman, Z. U., & Khalil, S. M. (2024). Use of Meta AI in WhatsApp in Learning and Teaching English Grammar: An Experimental Study. *Liberal Journal of Language & Literature Review*, 2(4).
- Rodilosso, E. (2024). *Filter Bubbles and the Unfeeling: How AI for Social Media Can Foster Extremism and Polarization*. Springer.
- Sigit, S. P., Anamisa, Devie Rosa, & Mufarroha, Fifin Ayu. (2022). *Algoritma Pemrograman*. Malang: Media Nusa Creative (MNC Publishing).
- Talamanca, G. F., & Arfini, S. (2022). Through the Newsfeed Glass: Rethinking Filter Bubbles and Echo Chambers. *Philosophy & Technology*, 35(1).
- Truna, D. S. (2024). *Agama dan Masyarakat dalam Perspektif Sosiologi*. Gunung Djati Publishing Bandung.
- Trunfio, M., & Rossi, S. (2021). Conceptualising and Measuring Social Media Engagement: A Systematic Literature Review. *Italian Journal of Marketing*, 2021(3).
- Valerio, C., William, L., & Noémier, Q. (2019). The Impact of Social Media on E-Commerce Decision Making Process. *International Journal of Technology for Business (IJTB)*, 1(1).
- Wang, Z., Ho, S.-B., & Cambria, E. (2020). A Review of Emotion Sensing: Categorization Models and Algorithms. *Multimedia Tools and Applications*, 79(47).
- Wang, Z., Huang, D., Cui, J., Zhang, X., Ho, S.-B., & Cambria, E. (2025). A Review of Chinese Sentiment Analysis: Subjects, Methods, and Trends. *Artificial Intelligence Review*, 58(3).
- Yoyo, Y., Mukhlis, A., Thonthowi, T., & Ferawati, F. (2020). High Variety vs Low Variety Culture in The Arabic Language: The Tensions Between Fushí, and ‘Í, Miyya in the Contemporary Arab World. *Arabi : Journal of Arabic Studies*, 5(1).