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Epistemology of Meaning in Digital Arabic: A Cognitive Semantic Analysis of Lexical Meaning Shifts in Social Media

Ali Mustofa*
Institut Agama Islam Al-Urwatul Wutsqo, Jombang, Indonesia
aljep_90@yahoo.com
*Correspondence

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Abstract
The proliferation of social media has driven a significant transformation in the use of the Arabic language, particularly at the level of lexical meaning. This article aims to examine the epistemology of meaning in digital Arabic through a cognitive semantic analysis of shifts in the meanings of Arabic vocabulary as used on social media platforms. The study adopts a qualitative-descriptive approach, employing cognitive semantic analysis as its primary method, with a focus on linguistic data collected from various Arabic-language social media platforms. The data are analyzed by identifying patterns of semantic expansion, narrowing, shift, and metaphorization that emerge within digital communication contexts. The discussion demonstrates that changes in the meanings of Arabic lexical items are influenced not only by internal linguistic factors but also by cognitive, social, and cultural dimensions that shape how speakers perceive and represent digital reality. The findings reveal that social media functions as a new epistemic space in which meaning is reconstructed through collective experience, novel conceptualizations, and multimodal interaction. In conclusion, the evolution of Arabic lexical meaning on social media reflects the epistemological dynamics of contemporary Arabic, wherein meaning is inherently flexible, context-dependent, and cognitively constructed by its speech community within digital environments.

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INTRODUCTION

Historically, the Arabic language has been positioned as a linguistic system characterized by a high degree of semantic stability, particularly due to its close association with normative, religious, and classical literary texts.[1] It is anticipated that the advancement of digital technologies and social media will serve as a means of expanding the use of the Arabic language without

[1] Hadi Widodo, Dian Eka Chandra Wardhana, and St. Mislikhah, "The Representation of Islamic Values in Indonesian Language Textbooks: A Critical Discourse Analysis," *Qualitative Research Journal*, December 25, 2025, 1–16, https://doi.org/10.1108/QRJ-07-2025-0228.

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disrupting its established semantic consistency.[2] In this context, the Arabic language is expected to adapt to new media while maintaining the clarity and precision of its lexical meanings.

However, empirical evidence indicates that social media, in fact, constitutes a space that accelerates the transformation of Arabic lexical meanings.[3] The rapid, concise, and context-dependent nature of digital communication practices fosters the emergence of new meanings that often diverge from conventional lexical usage.[4] Many Arabic lexical items are employed in metaphorical, ironic, or symbolic ways, thereby generating shifts in meaning that cannot always be adequately explained through a purely structural linguistic approach.

Previous studies on Arabic in social media have generally focused on sociolinguistic and pragmatic aspects, such as dialectal variation, code-switching, and the influence of foreign languages in digital communication.[5] These studies affirm that social media plays a significant role in shaping new linguistic practices among Arabic speakers,[6] However, they continue to primarily frame language change as a social phenomenon, rather than as a process of meaning construction that is cognitive and epistemological in nature.[7]

On the other hand, studies on lexical semantic change in Arabic have been extensively conducted within the traditions of historical semantics and lexicography.[8] These studies examine mechanisms of semantic change such as metaphor, metonymy, and semantic generalization in both classical and modern texts. Although they provide a robust theoretical foundation, such approaches tend to underrepresent the role of digital media as a new interactive space that shapes speakers' collective experience and knowledge.

The cognitive semantic approach has begun to gain attention in contemporary Arabic linguistic studies due to its capacity to elucidate the relationship between language, thought, and experience.[9] However, the application of this approach within the context of digital Arabic remains

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[2] Fatemah Husain, "Towards Safe Digital Communication: Building an Offensive Language Detection Framework for Kuwaiti Arabic," *Social Network Analysis and Mining* 16, no. 1 (February 2026): 36, https://doi.org/10.1007/s13278-026-01580-w.

[3] "Shifts in Qassimi Arabic: A Linguistic Analysis of Lexical and Phonological Changes Between Two Generations - ProQuest," accessed April 22, 2026, https://www.proquest.com/openview/5a1891f2a73a3b81e3f48a00f8da2d19/1?pq-origsite=gscholar&cbl=136091.

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[8] Rim Laatar, Chafik Aloulou, and Lamia Hadrich Belguith, "Towards a Historical Dictionary for Arabic Language," *International Journal of Speech Technology* 25, no. 1 (March 2022): 29–41, https://doi.org/10.1007/s10772-020-09704-z.

[9] Amal Othman Albureikan, "Navigating Contronyms: A Cognitive-Semantic Analysis of the Arabic Semi-Preposition /Warāʾa/," preprint, F1000Research, January 2, 2025, https://doi.org/10.12688/f1000research.159405.1.

limited and is rarely explicitly linked to issues of the epistemology of meaning.[10] As a consequence, understanding of how meaning is constructed, negotiated, and validated by Arabic speakers on social media remains insufficiently comprehensive.

Based on the foregoing discussion, there exists a significant research gap, namely the absence of studies that integratively connect the epistemology of meaning with cognitive semantic analysis of lexical semantic changes in Arabic as used on social media.[11] Previous research has tended to treat linguistic, social, and cognitive inquiries as separate domains, thereby failing to adequately account for the dynamics of meaning as a product of the interaction between linguistic structures, cognitive processes, and digital contexts. This article addresses this limitation by conceptualizing social media as an active epistemic space in which meaning is constructed through conceptual experience and the collective interaction of speakers.[12]

Therefore, the aim of this study is to analyze lexical semantic changes in Arabic on social media through a cognitive semantic approach within the framework of the epistemology of meaning. Specifically, this research seeks to identify patterns of semantic change, explain the underlying cognitive mechanisms, and elucidate the role of social media in reconstructing contemporary Arabic meanings.[13]

METHOD

This study employs a qualitative approach with a descriptive-analytical design, aiming to develop an in-depth understanding of lexical semantic changes in Arabic within the context of digital communication.[14] This approach is selected because it enables the researcher to examine meaning as a cognitive and epistemological construct formed through experience, social interaction, and the contextual use of language on social media platforms. The data sources for this study consist of authentic linguistic data collected from various Arabic-language social media platforms, including Twitter (X), Facebook, and Instagram. The dataset comprises posts, comments, and digital conversations containing Arabic lexical items that exhibit indications of semantic change.[15] Data selection is conducted using a purposive sampling technique, taking into

[10] Jordana Salma et al., "Digital Competence of Arabic-Speaking Immigrant and Refugee Older Adults Enacting Agency and Navigating Barriers: Qualitative Descriptive Study," *Journal of Medical Internet Research* 27, no. 1 (March 2025): e60547, https://doi.org/10.2196/60547.

[11] Amal Othman Albureikan, "Navigating Contronyms: A Cognitive-Semantic Analysis of the Arabic Semi-Preposition /Warāʾa/," preprint, F1000Research, January 2, 2025, https://doi.org/10.12688/f1000research.159405.1.

[12] Dimitrios Meletis, "Correcting Correction as Social Action: Critical Metaprescriptivism in Online Interaction," *Journal of Pragmatics* 259 (July 2026): 28–41, https://doi.org/10.1016/j.pragma.2026.03.018.

[13] Hengrui Ding, "A Light in the 'Darkness': Efforts of Chinese Print Media in Rebuilding Sino-Arab Connectivity During the Early Twentieth Century," *Middle East Critique* 0, no. 0 (June 2025): 1–22, https://doi.org/10.1080/19436149.2025.2506212.

[14] "Shifts in Qassimi Arabic: A Linguistic Analysis of Lexical and Phonological Changes Between Two Generations - ProQuest," accessed May 2, 2026, https://www.proquest.com/openview/5a1891f2a73a3b81e3f48a00f8da2d19/1?pq-origsite=gscholar&cbl=136091.

[15] Abdelrahman Hamdy, Ayman Youssef, and Conor Ryan, "Arab2Vec: An Arabic Word Embedding Model for Use in Twitter NLP Applications," *PLOS ONE* 20, no. 8 (August 2025): e0328369, https://doi.org/10.1371/journal.pone.0328369.

account frequency of use, relevance of digital context, and the potential occurrence of semantic shift, expansion, or metaphorization.

Data collection techniques are carried out through non-participant observation and digital documentation.[16] The researcher examines social media content within a defined time frame and archives relevant data in the form of screenshots and textual transcriptions. To ensure data validity and ethical compliance, only publicly accessible content that does not infringe upon user privacy is included in the analysis. Data analysis is conducted using a cognitive semantic framework, particularly the concepts of meaning conceptualization, conceptual metaphor, and source–target domain mapping. The analysis is carried out in a staged manner, beginning with the identification of lexical items undergoing semantic change, followed by the classification of types of semantic shifts, and culminating in the interpretation of the cognitive mechanisms underlying these changes within the social media context.[17]

Subsequently, an epistemological analysis of meaning is conducted to examine how these lexical meanings are produced and collectively validated by Arabic-speaking communities within digital spaces.[18] At this stage, social media is conceptualized as an epistemic space that enables the negotiation of meaning through interaction, repeated usage, and social acceptance of emerging meanings. Data validity was ensured through theoretical and contextual triangulation techniques by comparing the findings of cognitive semantic analysis with established concepts in both classical and contemporary Arabic linguistics. In addition, interpretive consistency was maintained through iterative analysis and conceptual discussions in order to minimize researcher subjectivity. Using this method, the study is expected to produce a comprehensive description of semantic shifts in Arabic vocabulary on social media, as well as to provide a theoretical understanding of the epistemological dynamics of meaning in Digital Arabic language.

RESULTS AND DISCUSSION

The findings indicate that social media plays a significant role as both a linguistic and epistemic space in shaping semantic shifts in Arabic vocabulary. The analyzed data reveal that Arabic lexical items used in digital contexts undergo changes not only at the lexical level but also at the conceptual and cognitive levels. These transformations reflect new ways in which Arabic speakers understand, construct, and validate meaning based on collective experiences within digital spaces.[19] In general, the identified semantic changes encompass four main patterns, namely semantic broadening, semantic narrowing, semantic shift, and conceptual metaphorization. These

[16] Jana Kaden and Birte Berger-Höger, "School Nursing in Germany - a Developing Field: Results of a Mixed Methods Study," *BMC Public Health* 26, no. 1 (December 2025): 196, https://doi.org/10.1186/s12889-025-25493-z.
[17] Nguyen Thi Thuy Hanh, "Human Source Domain in Metaphorizing Corporate Terminology," *Cognitive Studies | Études Cognitives*, no. 25 (December 2025), https://doi.org/10.11649/cs.3355.
[18] Othman Z. Barnawi, "Epistemological Theft and Appropriation in Qualitative Inquiry in Applied Linguistics: Lessons from Halaqa," *Applied Linguistics Review* 16, no. 1 (January 2025): 215–41, https://doi.org/10.1515/applirev-2024-0013.
[19] Jordana Salma et al., "Digital Competence of Arabic-Speaking Immigrant and Refugee Older Adults Enacting Agency and Navigating Barriers: Qualitative Descriptive Study," *Journal of Medical Internet Research* 27, no. 1 (March 2025): e60547, https://doi.org/10.2196/60547.

patterns do not occur randomly; rather, they are closely associated with interactional contexts, communicative purposes, and evolving social norms within social media environments.

The findings indicate that semantic broadening is the most dominant pattern of semantic change. A considerable number of Arabic lexical items that originally possessed specific meanings in formal or classical contexts are subsequently employed in a broader sense to refer to social, emotional, or symbolic phenomena within social media platforms. This semantic expansion enables these lexical items to function more flexibly across diverse digital communicative contexts.

From the perspective of cognitive semantics, this semantic broadening can be understood as the result of a re-conceptualization process, in which speakers map new experiences onto pre-existing semantic structures. Social media provides intense and recurrent shared experiences, thereby facilitating the conventionalization and collective acceptance of new meanings. These findings are consistent with previous studies emphasizing that semantic change is often driven by emerging communicative needs. However, this study extends that understanding by demonstrating that, in digital contexts, semantic broadening is also closely related to the epistemology of meaning, namely how knowledge of meaning is socially constructed and disseminated.

In addition to semantic broadening, this study also identifies instances of semantic narrowing in several Arabic lexical items used on social media. Certain vocabulary items that previously carried general meanings are, within digital contexts, employed in a more restricted sense to refer to specific phenomena or particular groups. This narrowing reflects a process of conceptual specialization shaped by social media user communities. Within the framework of cognitive semantics, semantic narrowing occurs when a concept becomes more focused as a result of repeated use in specific contexts. Social media, through its algorithms and interactional patterns, reinforces the association between lexical items and particular contexts, thereby allowing more restricted meanings to become dominant.

In contrast to historical semantic studies of Arabic, which conceptualize semantic narrowing as a gradual process across generations, the findings of this study indicate that in digital environments, semantic narrowing can occur rapidly and simultaneously across multiple speech communities. Semantic shift constitutes another significant finding of this study. It occurs when Arabic lexical items are employed with new meanings that are conceptually distinct from their original senses. In many cases, these emergent meanings even contradict their conventional interpretations, yet they remain comprehensible and are collectively recognized within digital communities.[20]

This semantic shift is closely related to social dynamics such as criticism, satire, and identity expression on social media. From the perspective of the epistemology of meaning, these shifts indicate that the validity of meaning is no longer solely dependent on lexicographical authority, but rather on implicit consensus and collective usage practices. These findings reinforce previous sociolinguistic studies concerning the role of social context in language change. However, this

[20] Luisa Conti, "Intercultural Education: Recalibrating Meanings, Objectives, and Practices," *Intercultural Education* 36, no. 4 (July 2025): 418–36, https://doi.org/10.1080/14675986.2025.2484514.

study adds a cognitive dimension by explaining how speakers mentally accommodate and accept these emergent meanings.

The results also reveal that conceptual metaphorization serves as a key mechanism in the formation of new meanings on social media. Arabic lexical items are frequently used metaphorically to represent abstract experiences, emotions, or digital phenomena that lack direct equivalents in traditional language. Conceptual metaphors enable speakers to map concrete experiences onto abstract domains, thereby facilitating collective understanding. In the context of social media, metaphor functions not only as a linguistic device but also as an epistemic strategy for interpreting complex digital realities. These findings are consistent with classical cognitive semantic theory; however, this study demonstrates that the intensity and pace of metaphorization in social media are considerably higher than in conventional written texts.

One of the main contributions of this study is the conceptualization of social media as a new epistemic space for the Arabic language. Social media is not merely a medium of communication, but also a site for the production, dissemination, and legitimation of meaning. Within this space, meaning is constructed through interaction, negotiation, and dynamic processes of social acceptance.

In contrast to traditional linguistic epistemologies, which position dictionaries and authoritative texts as primary sources of meaning, digital Arabic language epistemology is decentralized. Each speaker contributes to the construction of meaning through everyday language practices on social media. These findings expand Arabic linguistic discourse by demonstrating that the authority of meaning is now collective in nature and grounded in digital experience. Compared with previous studies, the findings of this research confirm that social media has a significant impact on changes in the Arabic language. However, this study goes beyond earlier research by simultaneously integrating cognitive semantic analysis and the epistemology of meaning.

Prior studies have tended to separate linguistic analysis from cognitive and epistemological dimensions. This research demonstrates that semantic change cannot be fully understood without considering how speakers perceive, construct, and validate meaning within social and digital contexts. Accordingly, this study contributes to the development of a more holistic theoretical framework in contemporary Arabic linguistic studies. The findings of this study have important theoretical implications for the fields of semantics and Arabic linguistics. First, the study confirms that meaning is dynamic and context-dependent, particularly within digital environments. Second, it reinforces the relevance of cognitive semantic approaches in analyzing contemporary Arabic language use.

In addition, this study highlights the need to redefine the concept of semantic stability in Arabic by taking into account the role of social media as a key driver of linguistic change.

From a methodological perspective, this study demonstrates that social media data constitute a valid and rich source for linguistic research. A qualitative approach employing

cognitive semantic analysis has proven effective in capturing the complexity of semantic change.[21] From a practical perspective, the findings of this study can be applied to the development of digital lexicography, Arabic language teaching, and studies of digital communication in the Arab world. Overall, the results and discussion of this study indicate that semantic change in Arabic vocabulary on social media is a multidimensional phenomenon involving linguistic, cognitive, social, and epistemological dimensions. Social media not only reflects language change but also actively shapes new ways of understanding and producing meaning. By re-evaluating these findings in relation to previous studies, this research offers a more comprehensive interpretation of the dynamics of meaning in Digital Arabic.

CONCLUSION

This study successfully analyzed semantic change in Arabic vocabulary on social media through a cognitive semantic approach within the framework of the epistemology of meaning. The findings indicate that social media functions as an epistemic space that enables the collective construction, negotiation, and validation of meaning. The main findings identify four patterns of semantic change: semantic broadening, semantic narrowing, semantic shift, and conceptual metaphorization, all of which reflect the adaptation of Arabic vocabulary to digital contexts and contemporary communicative practices.

Overall, this study confirms that Digital Arabic is dynamic, flexible, and context-dependent, in which meaning is shaped through social interaction and speakers' conceptual experiences. These findings extend the theoretical understanding of mechanisms of semantic change, underscore the relevance of cognitive semantics, and highlight the importance of the epistemology of meaning perspective for contemporary Arabic linguistic studies in the digital era.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

In the preparation of this manuscript, the author(s) utilized Gemini to assist with summarizing relevant literature and organizing research themes. All outputs were subsequently reviewed and revised by the author(s), who assume full responsibility for the final content of the publication.

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