

التحول الرمزي بين العربية والإنجليزية في الخطاب الرقمي العربي

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المخلص

هدف هذه المراجعة النقدية للأدبيات إلى تقديم نظرة عامة مفصلة ومنهجية للأدبيات الأكاديمية، ذات الصلة بالتناوب اللغوي بين العربية والإنجليزية في الخطاب الرقمي العربي - الذي يشمل وسائل التواصل الاجتماعي، ومنشورات المدونات، والمنتديات، والتعليقات، والرسائل الفورية - خلال الفترة من 2005 إلى 2024. وتشمل المراجعة 60 منشورًا محكمًا، تم تحليلها وفقًا لإرشادات PRISMA في مصادر أكاديمية عالمية، وتتناول أربع قضايا رئيسية: المناهج النظرية لدراسة التناوب اللغوي الرقمي، والخصائص البنوية والوظيفية لهذا التناوب، والسمات الأيديولوجية المرتبطة بهذا التغيير، وأخيرًا، المناهج المستخدمة في هذه البحوث ومدى ملاءمتها للسياق المُحلل. وبناءً على ذلك، خلصت هذه المراجعة إلى أن الخطاب الرقمي العربي يُمثل مصدرًا ثريًا للغاية للتحول الرمزي، فهو أكثر تعقيدًا وتطورًا من المناهج القائمة على الخطاب المباشر. وثمة حاجة ملحة الآن إلى صياغة منهجيات بحثية مصممة خصيصًا للخصائص الفريدة للكتابة الرقمية متعددة الأنظمة والتواصل السيبراني **الكلمات المفتاحية:** الازدواجية اللغوية، الخطاب الرقمي، وسائل التواصل الاجتماعي، علم اللغة الاجتماعي.

Arabic- English Code-Switching in Arabic Digital Discourse Theories, Methods and Research Problems

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Abstract

This critical review provides a comprehensive and systematic overview of studies that have addressed the phenomenon of code-switching between Arabic and English in Arabic digital discourse (from social media platforms and online comments to blogs, instant messages and internet forums) during the period from 2005 to 2024. The review incorporates the analysis of 60 peer-reviewed studies selected according to the PRISMA protocol from global academic databases, and addresses four main themes: the theoretical frameworks employed in the study of digital code-switching, the Structural and functional patterns documented-- in Arabic-English digital discourse, the identity and ideological dimensions associated with the switch in cyberspace, and finally the research methods used and their suitability to the specificities of the digital environment. The review concludes that Arabic digital discourse offers an exceptionally rich field for –trans-languaging, surpassing in its complexity and specificity the traditional theoretical frameworks derived from face-to-face spoken discourse. There is a pressing need to develop analytical approaches tailored to the digital environment, taking into account the unique characteristics of multi-system digital writing and the nature of real-time and near-real-time electronic interaction.

Keywords: bilingualism, digital discourse, social media, sociolinguistics.

1. Introduction

In the digital space, which is rapidly permeating the lives of Arab children—whose horizons have expanded significantly in the past decade thanks to smartphones—a new form of communication has emerged, unprecedented in Arab history. This communication is rapid, widespread, and almost ubiquitous: Arab writers interact with both Arabic and English through comments, posts, and emails, creating a hybrid text that combines writing systems, vocabulary, and grammar within a single discourse. This phenomenon, which linguists describe using terms such as "symbol substitution," "symbol fusion," or "translation" according to reference theory, is not merely a linguistic phenomenon; it is also an indicator of fundamental changes in Arab society, a product of digital globalization

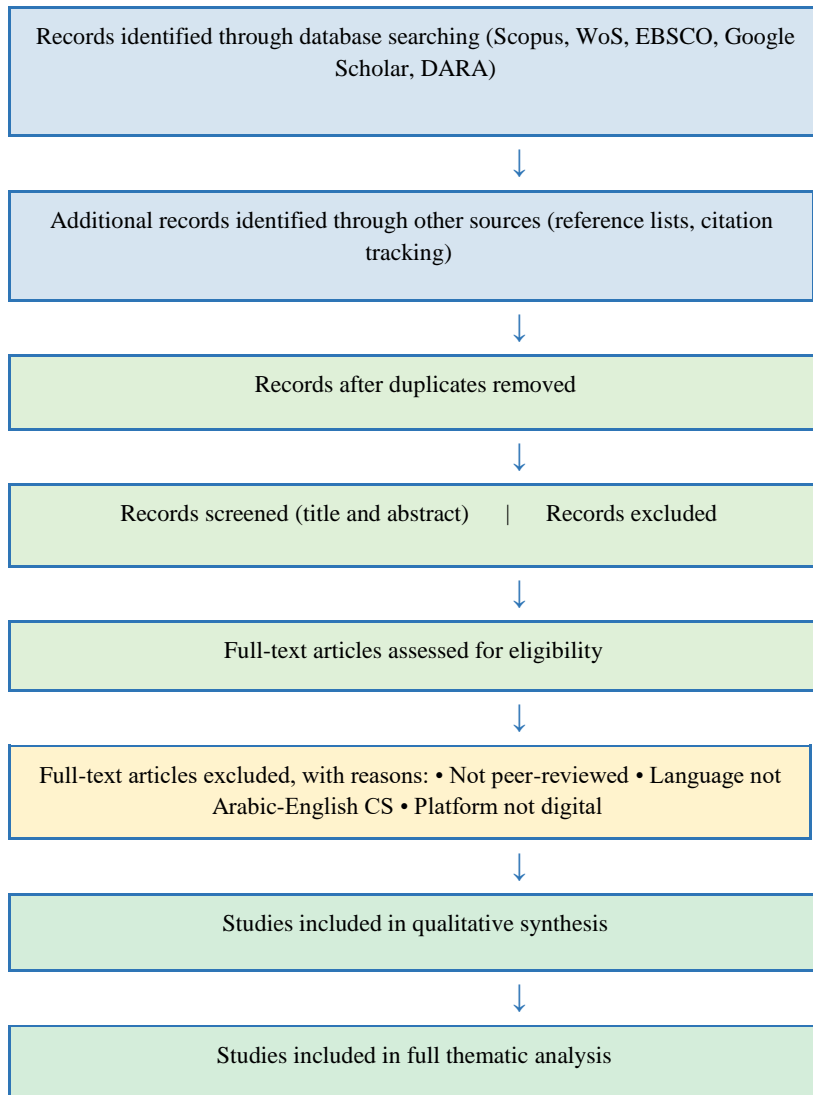
This phenomenon has attracted the attention of many researchers working in sociolinguistics studies , discourse analysis research, and other cultural studies. As a result, this led to a substantial body of research over the last few decades to analyze its practitioners, explore their motivations, functions, and "dimensions of identity". Anyway, these studies have become scattered, incorporating different methodologies and theoretical frameworks. They create an urgent need to review the objectives, that is considered organic and critically evaluated and justified as a cumulative set of functions, and to identify what the weakness aspires to..

This study tries to achieve group of integrated goals: First, identifying and critically evaluating the prevailing theoretical frameworks in the study of the Arabic-English digital "code-switching". Second, to review the structural and functional patterns documented in the literature. Third, to analyze the identity and ideological dimensions associated with the transformation in the Arabic digital space. Fourth, to critique the research methodologies used and propose future research directions.

1-1 Data Collection and Analysis

The review adopted the PRISMA protocol in selecting studies and preparing the report. The search included the following databases: Scopus, Web of Science, EBSCO, Google Scholar, and DARA (Database of Arabic Research), with bilingual keywords including: (Symbolic transformation, Symbolic blending, Arabic and English, Digital discourse, Social media, Arabizing, Code-switching Arabic English, Digital discourse, Social media, Trans-languaging Arabic). Below the figure explaining PRISMA strategy for selection

The following diagram illustrates the systematic process used to identify, screen, and include studies in this review, following the PRISMA 2020 guidelines (Page et al., 2021).



Note: PRISMA = Preferred Reporting Items for Systematic Reviews and Meta-Analyses. Adapted from Page et al. (2021). PRISMA 2020 Statement. BMJ, 372, n71.

1-2 Search Strategy

Systematic database searches were conducted in January–February 2024 across five databases: Web of Science (WoS), Google Scholar, and the Database of Arabic Research. Search strings were constructed using Boolean operators combining the following terms. English search string: ("code-switching" OR "code-mixing" OR "trans-linguaging" OR "language alternation" OR "Arabizing" OR "bilingual discourse") AND ("Arabic" OR "Arab") AND ("digital" OR "social media" OR "online" OR "internet" OR "WhatsApp" OR "Twitter" OR "Facebook" OR "Instagram" OR "TikTok")

Table (1): Criteria for selecting studies in the review

Standard	Sources	Exclusion
Platform	Digital platforms: Facebook, Instagram, WhatsApp, forums, blogs	Spoken language, printed texts, traditional media
Languages	Arabic with or between English	Bilingualism does not include Arabic or English
Methodology	Quantitative, qualitative, mixed, literature review	Opinion articles, unpeer-reviewed reports
Time period	2005–2024	Prior to 2005, except for foundational theoretical references
Quality	Published in a peer-reviewed or impact-weighted journal	Unreviewed or unpeer-reviewed
Availability	Full text available	Summary only, no access to the full text

1-3 Quality Appraisal

Each included study was assessed using a six-criterion quality appraisal framework adapted from the Mixed-Methods Appraisal Tool (MMAT; Hong et al., 2018). Criteria included: (1) clarity of research objectives; (2) appropriateness of methodology to research questions; (3) transparency of data collection; (4) adequacy of corpus or sample size; (5) rigor of analysis; and (6) sufficiency of ethical discussion. Studies scoring below 3/6 were retained but flagged as having significant methodological limitations in the synthesis.

1-4 Data Extraction and Coding Scheme

A standardized data-extraction form was applied to all 60 studies. Each study was coded for: study design; country/region of participants; digital platform(s) investigated; theoretical framework adopted; type of code-switching examined; key findings; and methodological limitations reported. Extraction was conducted by the primary reviewer and verified against the source texts. A full list of all 60 included studies is provided in the source pages.

2- Theoretical Framework — From Symbolic Transformation to Multilingualism

2-1 Symbolic Transformation: From Definition to Theorizing

In their seminal study of symbolic switching in Norway, Blom and Gumperz (1972) established the first frameworks for distinguishing between two types of switching: situational code-switching, which responds to changes in situation, subject, or participant, and metaphorical code-switching, which responds to deeper identity and affective needs. Gumperz (1982) further distinguished between inter-sentential and intra-sentential switching, a distinction that has remained a reference point for subsequent studies. Over the following decades, theories explaining symbolic transformation developed in multiple directions, which can be categorized into three major paths:

The Structural Approach

This approach deals with the grammatical constraints that determine the possible and impossible points of transformation in sentence structure. Poplack's structural hypothesis (Poplack, 1980) — the equivalence hypothesis and the free morpheme hypothesis — restricts transformation to points of grammatical equivalence between the two languages and to free morphemes, excluding those bound by grammatical constraints. Studies on Arabic-English digital discourse indicate that these constraints are subject to considerable flexibility in the digital environment, where functional communicative norms dominate over structural grammatical norms.

The Social-Pragmatic Approach

This approach focuses on the social and communicative functions of transformation. Myers-Scotton (1993) introduced the Matrix Language Frame Model, which identifies a core language that provides the morpho-grammatical framework and an embedded language that provides the borrowed components. Myers-Scotton also developed the Markedness Model, which views transformation as a conscious symbolic choice that conveys implicit identity and relational messages.

The Trans-languaging Approach:

Ofelia García (2009) and García & Wei (2014) introduced the concept of trans-languaging as an alternative framework that transcends the binary of “Language A” and “Language B.” This framework views the bilingual speaker not as moving between two separate systems, but rather as employing a single, integrated semiotic repertoire that is activated in flexible and creative ways according to the communicative situation. Proponents of this approach argue that the term “trans-language” itself perpetuates a misleading binary understanding, while the digital reality embodies a more complex and integrated linguistic practice than the term “trans-language” suggests.

Table (2): Differences among the three "theoretical frameworks" in analyzing the "digital symbolic transformation"

The way of multilingualism	social deliberative path	Structure	Distance
complete semiotic inventory	Discourse - social action	Sentence/ morpheme	Unit of analysis
are languages used together, How?	Why does this happen?	Where does the transformation take place	The main question
single semiotic inventory Users	Certain social actor selects own symbols	Transforming between two systems	looking at the speaker
without standard — practice is the reference	Societal context source	two standard reference languages	stance on standard
The highest — shows digital complexity	High — Social function	Partial — Structural constraints are overlapped	Digital discourse suitability
A loose term — measurement obstacles	Difficulties in determining the point of analysis	It forget the social context	The app's in prominent critics

2-2 Distinctive Side of the Digital Discourse and Theoretical Challenges

Differences have been found between digital discourse and direct oral discourse that significantly alter the nature of the symbolic transformation process. These differences include: (a) Writing versus speaking: Digital symbolic transformation occurs in writing, unlike speech, freeing the speaker from the constraints of immediate oral communication and allowing them greater flexibility in considering the symbols they will use; (b) Multi-frequency: Digital media allow for addressing multiple audiences simultaneously, complicating audience design; and (c) Permanence and dissemination: Everything communicated via digital media becomes permanent and widely disseminated. This has led researchers such as David Crystal (Crystal, 2011) and Thurlow and Mrozek (2011) to advocate for analytical tools specifically designed for digital discourse, rather than importing and applying oral discourse models without adapting them to the digital context.

3- Structural Features of Symbolic Changes in (Arabic and English) Languages Digital Communication

3-1 Transition of Sentences

Language switching occurs when a speaker write or say a word or entire text in Arabic, followed by the same person writing or saying the next word or text in English. This is a well -known practice among Arabic social networks, with many students participating in the activity. Some of the most common ways include the following example:

(Finally done after three weeks of tough work!)

المشروع اكتمل والله الحمد

In this form, it appears to be a functional distribution in which Arabic is used to indicate the completion of the activity in a "concise and informative" manner while English is used to express emotions and give more details.

3-2 Intra-Sentence Shifting

Intra-sentence switching can be considered the very or most interesting one structurally because it takes place inside a single predicative unit using elements from both languages. Introducing elements from another language into a single sentence without breaking the basic grammatical structure. Examples of some of the common types include:

أنا (*super excited*) عن هذا المشروع
 لازم تسوي (*update*) للدراسة
 الـ (*meeting*) اتأجل (*again*)
 الدكتور كان (*strict*) بالمناقشة
 هو (*literally*) ما يفهم اي شيء

3-3 Arabizing Phenomenon

A phenomenon that requires separate theoretical treatment is Arabizing: the practice of writing Arabic using Latin letters and numerals, where specific numbers represent Arabic phonemes absent from the Latin alphabet. Table 3 presents the standard Arabizing conventions as documented in the literature (Yaghan, 2008; Bianchi, 2012):

Arabizing numeral	Arabic phoneme	IPA	Example
2	ء (hamza/glottal stop)	/ʔ/	2ana (أنا)
3	ع ('ayn)	/ʕ/	3arabi (عربي)
5 or 7'	خ (kha)	/x/	5abar or 7'aber (خبر)
6	ط (ṭā')	/tʕ/	6ab3an (طبعاً)
7	ح (ḥā')	/ħ/	7abibi (حبيبي)
8 (some dialects)	ق (qāf)	/q/	8alb (قلب)
9	ص (ṣād)	/sʕ/	9a7 (صح)

Note: Arabizing conventions vary across regions and user communities. The mappings above represent the most widely documented conventions in the literature; regional variants exist, particularly for the phonemes /q/ and /ʕ/.

It is worth noting that the process of "Arabization," or the use of Latin letters to write non-standard Arabic while replacing certain Arabic sounds that have no Latin equivalent with numbers, requires separate theoretical study. This is because it involves a specific form of transformation occurring in the realm of writing, not in the realm of vocabulary and grammar. Arabization is understood as a system of notation based on the use of Latin letters with specific numbers representing particular Arabic sounds: (2 = 5)، (3 = هـ)، (هـ = 9)، (7 = هـ)، (6 = ي)، (= هـ).

shlonk? 7abibi 3ashan ma shofnak min zman...

Research into the literature on Arabizing reveals that its spread peaked in the period 2005–2015 with the first generations of phones that did not provide suitable Arabic keyboards, then it gradually declined with the spread of Arabic keyboards in smartphones, although it retained an identity presence among some millennial users who grew up with this writing and it became part of their digital identity.

3-4 Deep Symbolic Blending

According to the recent studies, there is a more complicated phenomenon of noticeable use by young people in general, it includes not only the shift from one element to another (either Arabic: word or :English word), rather it involves creating digital texts that include "Modern :Standard: Arabic", "regional dialects", English language, emoji figures, and hash-tags in one fabric. The first term used by some scholars for such a phenomenon is "globalized discourse."

يا رب *deadline* @ بكرة وأنا *literally* ما بدأت #تعب #اليوم_الدراسي
- انا الجوكر مال دفعة الماستر (شخصية عالمية +سياق اكايمي + هوية ساخرة +
كلمة انكليزية)

Analyzing these texts requires tools that go beyond and traditional theories of symbolic transformation to base on a multi-layered analytical framework that accommodates semiotic multimodality in all its dimensions.

4- The Pragmatic Functions of Digital Code Switching

4-1 Functions Classification Review

The literature included in this review has identified a wide range of pragmatic functions of code-switching in Arabic-English digital discourse, which can be organized in the following table:

Table (3): Documented pragmatic functions of code-switching in Arabic digital discourse

Function	Description	Example	Documented studies
emotional expression	Use English to express about difficult feelings that to express in Arabic	مو طابق Literally	الصاعد(2018) ، محمود (2020)
Adding prestige	Use English to show a scientific or professional character	The findings ...أنsuggest	علي(2016) ، التعمي (2021)
Relief and soothing	Use another language to soften a critical words	Sorryيس ما قدرت	الزهراني(2019)
collective solidarity	Affirming belonging to a specific identity group	We're all in this تياناس together	بدر(2017) ، الشمري (2022)
Filling the gaps	Filling a terminological gap in the destination language	أرسله على cloudال	حمادة(2019)
Selective exclusion	Exclude those who do not understand English from the .discourse	هم don't get it أصلاً	الغامدي(2020)
Language manipulate	Humor and jokes through sudden change	When the Wi-Fi يغoes off وأنا في الميتينج	العسيري(2021)
Pragmatic function	Reframe the subject of a discourse and change its perspective	Anyway ، نرجع للمهم...	بلال(2018)

4-2 Transformation and Target Audience

A significant proportion of the aforementioned studies, particularly those examining social media platforms like Facebook and Instagram, appear to show that Arab individuals adapt their trans-languaging process to their audience's perception: if the audience is bilingual, the transformation increases; conversely, this process diminishes as the audience size increases. WhatsApp differs from Facebook and Twitter in this respect, as communication takes place within a private or semi-private sphere, allowing for stronger and more spontaneous symbolic transformation.

5- Symbolic or Digital Switching: Identity and Ideology Representation

5-1 Digital Transformation as an Identity

Transformation and identity become one of the very prominent topics examined in the literature review. According to "Social Practice Theory" of Pierre Bourdieu (1991), the transformation of the user to change communication from Arabic into English, as well as the time when this happens and what kind of situation he/she is in, can be considered as a symbolic social practice belonging to linguistic capital used by him/her in specific communication. There are three identity patterns of symbolic digital transformation revealed by the analysis:

- The identity of modernization and globalization: where the shift to English is employed to showcase belonging to a civilized and educated global culture, as observed by Al-Hafi (2017) and Ben Salem (2019) in their studies on Gulf and Moroccan bloggers.
- The identity of class distinction: where the shift towards English is employed as a tool for social distinction between the educated class and the less educated classes, which is analyzed by critical studies such as Al-Ghamdi's study (2020).
- The identity of cultural balance: where transformation is employed as an expression of a dual or multiple identity that balances local cultural belonging and openness to globalism without abandoning either of them.

5-2 Ideological Positions on Transformation (Acceptance and Rejection)

The literature reviewed highlights a clear ideological tension regarding the phenomenon of digital trans-languaging Arabic discourse, manifested in two opposing discourses:

The first discourse — anxiety and rejection: It is embodied in articles and studies that see the shift towards English as a danger to the safety, unity and identity of the Arabic language, and classify it as a form of linguistic imperialism according to the term (Phillipson, 1992), or a form of identity concession in the face of Western globalization.

The second discourse — celebration and acceptance: This is embodied in studies that see the digital code-switching as linguistic creativity and an expression of the speakers' flexibility and ability to adapt to the demands of the times, and it is read as a natural practice in multilingual societies, especially among generations of learners.

The symbolic shift in Arabic digital discourse is not a sign of the disintegration of the language, but rather evidence of the ability of bilingual speakers to negotiate with multiple identities in a new communicative space.”

— Al-Zahrani (2019, p. 112)

5-3 The Gender and Age Gaps in Digital Transformation

Several included studies reveal significant differences in digital symbol transformation patterns according to gender and age:

Regarding gender, studies such as those by Al-Saed (2018) and Abu Ali (2022) find that women intensify their shift towards English in contexts of emotional expression and social solidarity, while men intensify it in contexts of professional and technical status. However, other studies indicate a narrowing of gender differences among younger generations immersed in internet culture.

In terms of age: It is clear that Generation Z (those born after 1995) shows the highest and most spontaneous conversion rates, while conversion rates are lower among older generations, which partly reflects differences in English language proficiency.

6- Reviewing the Research Methodologies used

6-1 Distribution of Curricula in Cross-Sectional Literature

Researchers studying digital code-switching face methodological challenges specific to corpus construction: how to collect texts systematically from platforms whose algorithms change constantly, how to treat emojis and hashtags as semiotic elements within the corpus, and how to encode bilingual Arabic-Latin texts automatically for computational analysis. These challenges are distinct from those of traditional corpus linguistics and require purpose-built solutions.

Table (4): Distribution of research methodologies in the included studies (n=60)

Methodology	No	ratio	Most studied platforms	Key weaknesses
(CDA)	17	26.2%	Facebook, Twitter	Short corpus callosum — lack of representation
Computational Linguistics / Corpus	13	22.6%	Twitter, Instagram	Problems of binary encoding
Qualitative analysis	12	21.4%	WhatsApp, blogs	Small sample size — limited generalization
Mixed (quantitative + qualitative)	10	16.7%	Facebook	The complexity of integration between the two levels
Structural analysis	6	9.5%	Various	Stripped of social context
Digital ethnography	3	3.6%	Special groups	Ethical access difficulty

6-2 Fundamental Methodological Problems

1 — The problem of building the corpus

Researchers in digital code-switching face methodological challenges specific to corpus construction that differ from those of traditional corpus: how to systematically collect texts from platforms whose algorithms are constantly changing, how to deal with emojis, tags and images as semiotic elements within the text, and how to accurately encode bilingual alphabetic texts (Arabic + Latin) automatically.

2 — The Problem of Representation and Generalization

The included studies exhibit a clear geographical bias: Gulf, Egyptian, and Maghrebi societies are overrepresented at the expense of Iraqi, Levantine, and Sudanese societies. This disparity is troubling because patterns of digital symbolic transformation vary according to differences in enrollment rates in English-language education, colonial history, and degree of openness to Western digital content.

3 - The Problem of Digital Ethics

Collecting digital texts from social media platforms raises ethical questions that have not been adequately addressed by the included studies: Is public posting an implicit consent to its use for research? And how should texts from closed or private groups be dealt with? Researchers think differently specially regarding their ethical guidelines for collecting digital data.

7- Symbolic Transformation Across Platforms — An Analytical Comparison

Table (5): Features of the symbolic transformation in digital platforms

distinctive feature	dominant function	Degree of transformation	Communicative character	platform
Comments are more likely to convert than posts.	Identity + Social	High	General / Semi-private	Facebook
Bilingual tags are common	Political + Humorous	Very high	General directed —	Twitter
The caption switching, unlike the comment change.	Identity + Cosmetics	Medium-high	Visual + Text	Instagram
Less self-censorship — more spontaneity	Spontaneity + Functionality	Very high	Private Groups /	whatsApp
The pseudonym liberates the transformation	Emotional + Critical	Medium	Interactive	YouTube / comments
The shift in translations and commentaries	Entertainment + Hobbies	Medium	Visual-verbal	Tik tok
Arabizing is strongly present	subgroups	Very high	semi-private	Arabizing Forums

Comparing the platforms reveals that the degree, type, and function of transformation vary significantly depending on each platform's communication structure.

Public communication platforms (Twitter, Facebook) stimulate identity and functional transformation, while spontaneity dominates transformation in private conversations (WhatsApp). These differences necessitate a research design specific to each platform, rather than generalizing the results to all platforms.

8- The Symbolic Switching in Iraqi Digital Discourse: a Reading in Researches Gap

8-1 The Uniqueness of the Iraqi Situation

The Iraqi context represents a case worthy of in-depth study in the literature on digital symbolic transformation, but it remains one of the least represented Arab contexts in the listed literature, as the studies that explicitly address symbolic transformation in Iraqi digital discourse did not exceed five studies out of 84 studies in the total corpus. The Iraqi situation exhibits a number of characteristics that distinguish it from the general Arab context:

- Multi-layered linguistic complexity: The Iraqi digital space combines Modern Standard Arabic, Iraqi colloquial Arabic with its regional variations (Baghdadi, Basrawi, Mosulwi), Kurdish and English in a rare linguistic complexity.
- The impact of the post-2003 period: Cultural and educational openness after 2003 and exposure to Western media contributed to raising the rates of English proficiency among younger generations and consequently raising the rates of symbolic transformation.
- Iraqi communities abroad: The Iraqi communities in Europe, America and Australia represent a digital community connected to the Iraqi interior that produces a bilingual discourse with a very rich migration-identity character.

8-2 Recommendations for Iraqi Research

This study recommends a number of research priorities for researchers in the Iraqi context:

Building a classified Iraqi digital corpus that collects posts and comments from Facebook, Twitter, TikTok, YouTube and WhatsApp, representing different regions, age groups and educational levels.

Comparative studies of symbolic transformation in major cities (Baghdad, Basra, Mosul) to monitor regional variations.

Research focusing on Iraqi communities in the diaspora to study symbolic transformation in the context of dual identity. This study proposes the following research priorities for scholars working in the Iraqi context:

Research Priority	Suggested Design	Expected Contribution
Build a classified Iraqi digital corpus	Collect posts from Facebook, Twitter, TikTok, YouTube, and WhatsApp representing diverse regions, age groups, and educational levels	Enable corpus-based and computational analyses of Iraqi code-switching at scale
Comparative regional study	Compare switching patterns across Baghdad, Basra, and Mosul using matched corpora	Document intra-Iraqi regional variation in switching frequency, type, and function
Diaspora identity study	Focus on Iraqi communities in the UK, Germany, USA, and Australia; use digital ethnography and interviews	Contribute to the literature on migration, identity, and digital code-switching
Post-2003 generational study	Compare switching patterns across cohorts born before and after 2003	Trace the relationship between geopolitical change and language practice

9- Critical Discussion of Gaps and Future Directions

9-1 Key Shortcomings in the Literature

This paper identifies five key gaps that require systematic research attention:

- The **First** shortcoming: Geographical bias: As mentioned previously, the Arabian Gulf and North Africa represent more than 70% of the analyzed studies, hindering the development of a comprehensive theory on the digital symbolic transformation from Arabic to English, as the Levant, Iraq, and Sudan were not included.
- The **Second** shortcoming: Neglect of history and chronology: Studies tend to focus on a single point in time, given their reliance on cross-sectional studies, and few address the evolution of symbolic transformation over time.

- The **Third** shortcoming: Semiotic pluralism: Most research focused solely on texts, neglecting semiotic elements such as images, emojis, and audio in video recordings.
- The **Fourth** Shortcoming: recipient understanding: While there are various works focusing on the issue of production (how users create transformed discourse), little attention has been paid to the issue of receivers (how receivers understand transformed discourses).
- The **Fifth** Shortcoming: the impact on education: There appears to be an evident absence of any literature utilizing the topic of digital symbolic transformation to determine its impact on language acquisition or bilingual education.

9-2 Future Research Trends

- Creation of automatic coding and categorization systems for Arabic-English bilingual corpora through deep learning methods.
- Long-term research projects that examine how digital symbolic transformation changes occur in certain societies from year to year.
- Research that integrates linguistic analysis with social psychology to explore actual ideological attitudes toward transformation and their relationship to perceived identity.
- Comparative studies between the digital symbolic transformation in Arab society and other multilingual environments (Indian, African, Southeast Asian).
- Investing in the converted digital discourse as an authentic material in teaching Arabic and English to bilingual students.

10- Conclusion

This critical review examined sixty documented studies on the phenomenon of symbolic shift between Arabic and English in Arabic digital discourse, and resulted in a number of key conclusions:

First: The Arabic-English digital discourse that has been converted is a structurally and functionally mature linguistic phenomenon that is deeply rooted in the behavior of Arab digital generations, and it is not expected to decline in the foreseeable future, but rather it is likely to deepen and develop with the development of platforms.

Second: None of the available theoretical frameworks individually covers the complexity of this phenomenon in its digital dimension; the most explanatory approach is the one that integrates structural, pragmatic and identity dimensions into an integrative model.

Third: The digital symbolic transformation is not a linguistic dissolution or cultural subservience, but rather a complex socio-linguistic practice that embodies the ability of Arab speakers to negotiate with multiple identities in a new communicative space.

Fourth: The literature suffers from a clear geographical bias that overlooks Eastern Arab societies, especially Iraq and the Levantine context, which limits the possibility of building a comprehensive theory of the phenomenon.

Fifth: The field still lacks research methodologies dedicated to the multi-system semiotic digital environment, and there is an urgent need to develop analytical tools and a methodological framework that accommodates the complexity of digital discourse in all its dimensions.

This review concludes with an explicit call for researchers in applied linguistics at Iraqi universities to engage more effectively in this field — based on specially designed Iraqi digital courses — as Iraqi-English digital discourse represents one of the richest and most in need of in-depth study in Arabic literature.

Sources

Arabic Sources

1. أبو علي، ر. (2022). التحول الرمزي في خطاب النساء الأردنيات على وسائل التواصل الاجتماعي . مجلة دراسات في اللغة العربية وآدابها، 37، 1-30
2. الحافي، س. (2017). التحول الرمزي في المدونات الخليجية: بين الهوية والعولمة. مجلة اللسانيات الاجتماعية، 12، 44-71
3. الزهراني، ع. (2019). التداخل اللغوي في التعليقات الإلكترونية السعودية: دراسة تداولية. مجلة جامعة أم القرى للعلوم الاجتماعية، 11(2)، 100-130
4. الشمري، خ. (2022). (التحول الرمزي الرقمي في الخطاب الكويتي: المنصات والوظائف والمواقف) رسالة دكتوراه، جامعة الكويت
5. الصاعد، ر. (2018). ظاهرة التبديل الرمزي في خطاب منصة تويتر لدى الشباب السعودي. مجلة اللغة العربية وآدابها، 14(4)، 211-244
6. الغامدي، ه. (2020). التحول الرمزي في إنستغرام: الهوية الطبقية وأيديولوجيا اللغة. مجلة علوم اللغة، 28، 77-111
7. النعيمي، ف. (2021). التمازج اللغوي في منشورات الفيسبوك الإماراتية: وظائف وأبعاد. مجلة اللسانيات التطبيقية، 8(1)، 33-62
8. بدر، ن. (2017). العربي في منديات الشباب العربي: دراسة لسانية اجتماعية. مجلة المجمع العلمي الأردني، 7(3)، 88-117
9. بلال، أ. (2018). التحول الرمزي في مجموعات واتساب المصرية: الأنماط والوظائف. مجلة اللسانيات المعاصرة، 5، 14-40
10. بن سالم، س. (2019). الهوية الرقمية والتحول اللغوي في المدونات المغربية. مجلة اللغة والأدب، 22، 56-84
11. حمادة، ع. (2019). التداخل اللغوي في تعليقات يوتيوب المصرية: دراسة في المصطلح التقني . مجلة الدراسات اللغوية، 18، 30-55
12. علي، ه. (2016). التبديل الرمزي في الخطاب الأكاديمي الرقمي للطلاب السودانيين. مجلة اللسانيات التطبيقية والتعليم، 9، 1-25
13. محمود، ر. (2020). (التداخل اللغوي في خطاب الشباب المصري على فيسبوك: منظور هوياتي: رسالة ماجستير، جامعة عين شمس

English Sources

- 1-Bell, A. (1984). Language style as audience design. *Language in Society*, 13(2), 145–204.
- 2-Blom, J. P., & Gumperz, J. J. (1972). Social meaning in linguistic structure: Code-switching in Norway. In J. J. Gumperz & D. Hymes (Eds.), *Directions in Sociolinguistics* (pp. 407–434). Holt, Rinehart & Winston.
- 3-Bourdieu, P. (1991). *Language and Symbolic Power*. Polity Press.
- 4-Crystal, D. (2011). *Language and the Internet* (3rd ed.). Cambridge University Press.
- 5-García, O. (2009). *Bilingual Education in the 21st Century: A Global Perspective*. Wiley-Blackwell.
- 6-García, O., & Wei, L. (2014). *Translanguaging: Language, Bilingualism and Education*. Palgrave Macmillan.
- 7-Gumperz, J. J. (1982). *Discourse Strategies*. Cambridge University Press.
- 8-Holes, C. (2004). *Modern Arabic: Structures, Functions, and Varieties* (rev. ed.). Georgetown University Press.
- 9-Hussein, R. F. (1999). Code-alteration among Arab college students. *World Englishes*, 18(2), 281–289.
- 10-Mahootian, S. (2012). Repertoires and resources: Accounting for code-mixing in the media. In M. Gardner-Chloros & M. Qian (Eds.), *Code-switching in Multilingual Societies*. Cambridge University Press.
- 11-Myers-Scotton, C. (1993). *Social Motivations for Code-Switching: Evidence from Africa*. Clarendon Press.
- 12-Phillipson, R. (1992). *Linguistic Imperialism*. Oxford University Press.
- 13-Poplack, S. (1980). Sometimes I'll start a sentence in Spanish y termino en español: Toward a typology of code-switching. *Linguistics*, 18(7–8), 581–618.
- 14-Salim, Alyaa Hadi (2024). "Creative Translation of Projects Slogans and Storefront into Arabic with special reference to Basrah Province Market". *Arabian Gulf Journal*. Vol. 52, Issue 4. On: <https://iasj.rdd.edu.iq/journals/uploads/2024/12/09/22d31bbbf568fa178e1ac408b0d30869.pdf>
- 15-Sebba, M., Mahootian, S., & Jonsson, C. (Eds.). (2012). *Language Mixing and Code-Switching in Writing*. Routledge.
- 16-Thurlow, C., & Mroczek, K. (Eds.). (2011). *Digital Discourse: Language in the New Media*. Oxford University Press.
- 17-Warschauer, M., El Said, G. R., & Zohry, A. (2002). Language choice online: Globalization and identity in Egypt. *Journal of Computer-Mediated Communication*, 7(4).
- 18-Wei, L. (2018). Translanguaging as a practical theory of language. *Applied Linguistics*, 39(1), 9–30.
- 19-Yaghan, M. A. (2008). 'Arabizi': A contemporary style of Arabic slang. *Design Issues*, 24(2), 39–52.
- 20-Zughoul, M. R. (2003). Globalization and EFL/ESL pedagogy in the Arab world. *Journal of Language and Learning*, 1(2), 106–146.