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ARABIC AI TERMINOLOGY ACROSS NATIONAL STRATEGIES: A COMPARATIVE STUDY OF THE UAE, SAUDI ARABIA AND EGYPT

Madina Nizomova, Master's student,
Department of linguistics: Arabic language,
Tashkent State University of Oriental Studies,
Tashkent, Uzbekistan.
madyikrm@gmail.com
+998908059282

Abstract: National artificial-intelligence strategies now function, alongside technical documentation and news media, as a distinct and highly authoritative register in which Arabic AI terminology is produced and circulated. This paper compares the Arabic terminology and institutional-naming choices of three of the region's most prominent national AI strategies: the United Arab Emirates' National Strategy for Artificial Intelligence 2031 (launched 2017), Saudi Arabia's National Strategy for Data and AI, administered by the Saudi Data and Artificial Intelligence Authority (launched 2020), and Egypt's National Artificial Intelligence Strategy, administered by the National Council for Artificial Intelligence (first edition 2021, second edition 2025-2030). Drawing on official government documentation and strategy texts, the paper identifies systematic terminological divergence at three levels: the naming of the coordinating institution itself (council versus authority), the scope framing of the strategy title (AI-only versus explicitly bundled data-and-AI), and the core conceptual vocabulary each country foregrounds (talent and reputation branding in the UAE, data leadership in Saudi Arabia, and a diachronic shift toward 'sovereign AI' and national foundation-model vocabulary in Egypt's second-edition strategy). The paper argues that this divergence is not superficial stylistic variation but reflects genuinely different institutional architectures and policy priorities in each country, and that it constitutes a

policy-level analogue to the terminological variability already documented between technical-documentation and media registers. The paper discusses implications for pan-Arab terminology coordination bodies, which have not traditionally engaged national AI policy-making institutions as a distinct terminology-producing register.

Keywords: Arabic AI terminology, national AI strategy, language policy, SDAIA, terminology planning

1. Introduction

Since 2017, several Arab Gulf and North African states have adopted formal national artificial-intelligence strategies, positioning AI policy as a central pillar of broader economic diversification agendas such as the UAE's Centennial 2071 and Saudi Arabia's Vision 2030. These documents are not merely policy instruments; because they are produced by the highest level of national government, published in Arabic (often alongside an English version), and widely cited by domestic media, industry, and subsequent legislation, they function as an unusually authoritative — arguably the most authoritative — site of Arabic AI terminology production, comparable in influence to, but distinct from, the technical-documentation and news-media registers examined in related work on Arabic AI vocabulary.

This paper asks whether Arabic AI terminology converges or diverges across three prominent national strategies: the United Arab Emirates' National Strategy for Artificial Intelligence 2031, Saudi Arabia's National Strategy for Data and AI (NSDAI), and Egypt's National Artificial Intelligence Strategy. Given that all three documents address substantially the same underlying technology and were produced within a roughly eight-year window by governments in frequent diplomatic and economic contact with one another, convergence might reasonably be expected; divergence, by contrast, would suggest that national AI terminology is shaped primarily by each country's distinct institutional architecture and policy priorities rather than by any shared regional standard. The paper proceeds as follows: Section 2

describes the documents examined and the comparative method; Section 3 presents three levels of terminological divergence identified; Section 4 discusses the institutional and policy drivers behind this divergence and its implications for pan-Arab terminology coordination; Section 5 concludes.

2. Materials and methods

This paper compares three national AI strategy programs using official government and institutional documentation: the UAE National Strategy for Artificial Intelligence 2031, launched in October 2017 and administered through the UAE Artificial Intelligence Office and the UAE Council for Artificial Intelligence, as documented on the UAE government's official bilingual portal (u.ae); Saudi Arabia's National Strategy for Data and AI, announced in 2020 at the first Global AI Summit in Riyadh and administered by the Saudi Data and Artificial Intelligence Authority (SDAIA), established in 2019, as documented in SDAIA's own materials and OECD.AI's policy-initiative database; and Egypt's National Artificial Intelligence Strategy, whose first edition was developed by the Ministry of Communications and Information Technology (MCIT) and the National Council for Artificial Intelligence (NCAI) and became effective in May 2021, and whose second edition (2025-2030) was subsequently published in both Arabic and English on Egypt's official AI platform.

Because a full parallel-corpus extraction of all three complete strategy texts was beyond the scope of this study, the comparison proceeds at three levels for which official Arabic or bilingual terminology is directly documented: (1) the Arabic name of the coordinating institution responsible for each strategy; (2) the Arabic title and scope framing of the strategy document itself; and (3) the core conceptual vocabulary each country's official communications foreground when describing the strategy's aims. This approach follows the descriptive-comparative method used in related studies of Arabic terminology across registers, treating official strategy documentation as a

distinct register whose terminological choices can be compared even without a fully quantified parallel corpus.

3. Results

Comparison across the three countries reveals systematic divergence at all three levels examined, rather than convergence around a shared regional standard.

3.1. Institutional naming: council, authority, and office

The three countries use structurally different institutional labels for their national AI coordinating bodies, corresponding to different degrees of formal regulatory authority. The UAE's ecosystem includes the UAE Artificial Intelligence Office and the UAE Council for Artificial Intelligence (majlis al-imarat lil-dhaka' al-istina'i), the latter explicitly tasked with implementing the national AI strategy and coordinating sub-committees and councils. Saudi Arabia, by contrast, vests AI coordination in the Saudi Data and Artificial Intelligence Authority (al-hay'a al-sa'udiyya lil-bayanat wal-dhaka' al-istina'i, SDAIA), using hay'a — a term connoting a statutory regulatory authority with enforcement power — rather than majlis (council), and SDAIA in turn oversees three further sub-entities, including the National Center for AI. Egypt's coordinating body is the National Council for Artificial Intelligence (al-majlis al-watani lil-dhaka' al-istina'i, NCAI), again using majlis, chaired by the Minister of Communications and Information Technology, structurally closer to the UAE's council model than to Saudi Arabia's authority model.

This is not a trivial naming difference. A hay'a (authority) in Arabic administrative usage typically implies independent statutory power, including regulatory and enforcement functions, comparable to Anglophone regulatory agencies; a majlis (council) more typically implies a coordinating, advisory, or cross-ministerial body without independent enforcement power of its own. Saudi Arabia's choice of hay'a for SDAIA is consistent with SDAIA's broader mandate, which explicitly includes national data governance and regulatory frameworks such as the Personal Data

Protection Law, whereas the UAE's and Egypt's council-based models place primary regulatory and legislative authority with existing ministries and legislative bodies, reserving the AI-specific body for coordination and strategy implementation.

3.2. Strategy-title framing: AI-only versus data-and-AI

A second divergence concerns how each country frames the scope of its strategy in the document's own title. Saudi Arabia's strategy is explicitly named the National Strategy for Data and Artificial Intelligence, bundling data governance and AI into a single strategic and terminological unit from the outset — consistent with SDAIA's institutional structure, which houses a dedicated National Data Management Office alongside its AI-focused National Center for AI. The UAE's and Egypt's flagship documents, by contrast, are titled as AI-specific strategies (the National Strategy for Artificial Intelligence 2031; the National Artificial Intelligence Strategy) even though both countries pursue substantial parallel data-governance and data-protection policy work through separate instruments. This difference in title-level scope framing has direct terminological consequences: Saudi Arabian official communications routinely pair 'data' (bayanat) and 'AI' (al-dhaka' al-istina'i) as a fixed collocation, while UAE and Egyptian official communications more often treat AI terminology as a self-contained domain, with data-related vocabulary appearing in separate policy documents and, correspondingly, separate terminological contexts.

3.3. Diachronic and cross-country divergence in core conceptual vocabulary

The three strategies also foreground different core conceptual vocabulary, reflecting different national policy priorities. UAE official communications emphasize branding and talent-destination framing, including the explicit goal to 'build a reputation as an AI destination' and the creation of a dedicated quality-assurance brand ('UAI') for ethical AI companies and products — vocabulary oriented toward international perception and investment attraction. Saudi Arabian communications foreground data leadership and infrastructure vocabulary, consistent with the data-and-AI title framing

discussed above, alongside recently introduced commercial-sector vocabulary tied to HUMAIN, the Public Investment Fund's AI company launched in 2025. Egypt's strategy shows a documented diachronic shift in core vocabulary between its two editions: whereas the 2021 first edition emphasized foundational awareness-building and capacity vocabulary, the 2025-2030 second edition explicitly introduces the concept of 'sovereign AI' (Arabic official communications render this in terms of nationally owned, locally trained AI capability) and a 'National Foundation Model' initiative, marking a terminological shift from adoption-oriented vocabulary toward sovereignty- and ownership-oriented vocabulary within a single country's own strategic documentation over a four-year period.

3.4. Comparative overview

Table 1. Institutional and terminological comparison of three national AI strategies

Dimension	UAE	Saudi Arabia	Egypt
Strategy titl (scope)	AI-only (Nationa Strategy for AI 2031)	Data-and-AI bund (NSDAI)	AI-only (National AI Strateg
Coordinatin body / Arab term	UAE Council fo AI (majlis)	SDAIA (hay'a, statutory authority	NCAI (majlis)
Launch date	October 2017	2020	First ed. 2021; second ed. 202 2030
Foreground core vocabulary	Reputation, taler 'AI destination', 'UAI' brand	Data leadership, infrastructure, national data bank	Awareness/capacity (2021) – 'sovereign AI', national foundation model (2025-203(
Governance hics term	AI Charter (mith	Data & AI regulat frameworks (SDA policies)	Egyptian Charter for Responsible AI (2023)

4. Discussion

The divergence documented above suggests that national AI strategy documents constitute a policy-level analogue to the register-specific terminological variability already identified between technical documentation and news media: rather than a single, regionally shared 'official' Arabic AI vocabulary, each country's strategy vocabulary is shaped by its own institutional architecture (council versus statutory authority), its own strategic framing (AI-only versus data-and-AI bundled), and its own evolving policy priorities (brand-and-talent, data-and-infrastructure, or sovereignty-and-ownership framing). This is, in one sense, unsurprising: national strategies are sovereign policy instruments, and there is no supranational Arab body with binding authority to standardize their terminology, unlike the advisory, non-binding role played by bodies such as ALECSO in general scientific and technical Arabization. Yet the finding is nonetheless significant for terminology planning, because these documents are unusually influential relative to their number: a handful of national strategy texts, through ministerial citation, subsequent legislation, and media coverage, plausibly shape more downstream Arabic AI usage than a proportionally much larger volume of ordinary technical or journalistic text.

This has a direct implication for pan-Arab terminology-coordination efforts of the kind discussed in relation to institutional terminology databases such as ARABTERM. Such efforts have traditionally engaged language academies, technical dictionaries, and, to a lesser extent, industry localization teams, but they do not appear to systematically engage national AI policy-making bodies such as SDAIA, the UAE AI Office, or Egypt's NCAI as a distinct terminology-producing constituency, despite the outsized downstream influence of their documents. A terminology-coordination process that captured, compared, and where appropriate reconciled core vocabulary across national strategies at the point of drafting — rather than after each country's strategy has already been published, translated, and cited — could meaningfully reduce the kind of

institutional-level terminological fragmentation documented here, in the same way that closer coordination between media and institutional terminology databases was proposed in related work on Arabic AI vocabulary in journalism.

This study has clear limitations. Full systematic extraction and quantitative comparison of the complete Arabic text of all three national strategies, ideally including all editions and any regional or sectoral sub-strategies, was beyond the scope of this paper, which instead relies on official summaries, government portal documentation, and secondary policy-tracking sources; some of the underlying primary Arabic strategy texts were not directly accessible for word-level extraction, and the comparison should accordingly be read as an illustrative institutional-discourse analysis rather than an exhaustive corpus study. Extending the comparison to additional national strategies (for example, Qatar, Bahrain, and Morocco) and to a fully parallel Arabic-English corpus of complete strategy texts would allow the three levels of divergence identified here to be quantified with greater precision.

5. Conclusion

Arabic AI terminology diverges systematically across the national AI strategies of the UAE, Saudi Arabia, and Egypt, at the level of institutional naming, strategic scope framing, and core conceptual vocabulary, and this divergence has shifted further even within a single country's own strategic documentation over time, as shown by Egypt's transition from adoption-oriented to sovereignty-oriented vocabulary between its 2021 and 2025-2030 strategy editions. Because national strategy documents function as an unusually authoritative register whose terminological choices propagate outward through legislation, media, and industry practice, this divergence constitutes a policy-level analogue to the register-specific variability already documented between technical documentation and news media. Extending Arabic terminology-coordination efforts to explicitly engage national AI policy-making bodies, rather than treating language academies, technical documentation, and media as the only relevant

terminology-producing registers, would address a currently under-recognized source of Arabic AI terminological fragmentation at the highest institutional level.

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