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The Second Rediscovery of the Classical Tradition in the Age of Artificial Intelligence

A quarter of a century ago, a graduate student in disciplines related to classical Islamic tradition had to bring along a notebook and a bundle of index cards, and sit for hours in one of the public or private libraries, taking one book after another and reading long pages to extract relevant ideas and citations to serve as sources for his thesis or dissertation. Similarly, scholars two centuries ago lacked access to a significant body of classical works spanning multiple disciplines, works that had remained manuscripts consigned to oblivion before being revived in the consciousness of the new generations in the age of printing, when the classical tradition was rediscovered.



Today, the scholar has a closer connection to and a broader knowledge of the classical tradition than his counterpart who lived in Islamic cities three centuries ago. As Ahmed EL Shamsy⁽¹⁾ has traced, the book markets and stationeries of that time did not carry Tafsir Al-Tabari, nor Ibn Khaldun's Muqaddimah, nor Al-Shafi'i's Al-Umm, among many others.

Extracting the rare treasures of forgotten books and reprinting them has been extremely fruitful in provoking debates on various historical, literary, and jurisprudential issues, and in opening wide doors to understanding the dimensions of Islamic culture, its history, and sciences.

Today, when researchers scroll through thousands of classical books and texts on their computer and access what they need in a matter of minutes, they will feel an even greater sense of strangeness compared to the scholar of a quarter of a century ago, not to mention the situation two centuries earlier. The technology that provides today's tools to study classical heritage and facilitate access to it has created a fluidity of information. While it supplies the necessary material, it has also increased the difficulty of controlling and making effective use of it. Nevertheless, digital tools have not altered the methods of consulting, analyzing, and comparing sources; these remain necessary stages that must be completed in the study of classical heritage.

What digitization has done is to remove barriers to accessing sources and information, enable searching within sources, and place them at the researcher's disposal, while the researcher remains the foundation and mainstay of scholarly research. The printing press revolutionized intellectual renewal in ways that digitization has yet to equal. Nevertheless, the current transitional phase is laying the groundwork for a new paradigm. Artificial

intelligence is poised to transform scholarly roles, demanding new methods for engaging with and validating its outputs, and opening the path towards a second rediscovery of the classical tradition—one that surpasses both the printing revolution and the digital era.

The promising potential for employing artificial intelligence in Arabic language sciences and heritage across their various specializations is far deeper than naïve perceptions and hasty judgments based on hallucinations that appear in the answers of AI tools that are not trained on Arabic and its sources, a language that ranks among the lowest in terms of available content in the digital space. To appreciate these prospects, it suffices to interrogate the AI models themselves about the capabilities they can offer in this field. They will tell us about converting manuscripts into searchable, analyzable texts using advanced Optical Character Recognition techniques trained on old Arabic scripts, comparing manuscript variants, restoring damaged or incomplete texts using predictive text techniques, and restoring images and old manuscripts using AI-based image processing. Among the easier tasks is classifying content by topic using machine learning models and detecting duplicated or similar texts across ages, which helps trace the development of ideas and terms.

In the linguistic domain, AI promises the ability to analyze rhetorical and linguistic styles in Quranic, hadith, and heritage texts; extract legal concepts and terms and link them to their historical and social contexts; and build intelligent lexicons that connect classical vocabulary with their meanings in different contexts. It goes further by building knowledge models that link scholars, books, intellectual schools, topics, their journeys, and their meetings—even constructing a “code” of a scholar, his style

(1) In his book *Rediscovering the Islamic Classics: How Editors and Print Culture Transformed an Intellectual Tradition* (translated by Nuhud Center, Kuwait, 2022), Ahmed EL Shamsy details the profound changes introduced by the rise of printing and critical editing. He highlights how these developments opened new avenues for reviving Islamic heritage that had largely remained outside the scientific and intellectual discourse in the Islamic world prior to the printing era.



and language, that enables the identification of his texts. It will be possible to analyze the influence of scholars and intellectual schools on one another using network techniques, and even to monitor interactions between cultures and civilizations, as well as their mutual linguistic and scientific influences, all the way to translating classical texts and conveying their meanings to those who do not master their language. In education and interaction, intelligent educational assistants can be created to explain classical concepts in contemporary language, simulate juristic or theological dialogues between scholars using language models, and

generate interactive educational tools to simplify understanding of the classical tradition.

Experiments indicate the realism of these prospects and the realization of some of them, but there are challenges that delay their accuracy and reliability. Chief among these challenges is the failure of relevant institutions and experts to adequately train AI models on Modern Standard Arabic and on the sources of the Islamic tradition across its various disciplines. The widely available Arabic AI models are directed towards everyday life, services, and investment opportunities, and for the most part are not trained on specialized sciences and knowledge or on lofty Arabic. These require massive projects funded by states and institutions that carry civilizational concerns and bear the heavy responsibility of preserving the Arabic language and Islamic identity.

One of the most important matters to pay attention to in potential projects in this field is that experts in language, history, and Islamic sciences should take on the task of guiding how AI tools are trained, after they themselves have been trained and educated on the possibilities of its exploitation. No matter how knowledgeable a technical expert is in Arabic, they may not fully grasp the particularities of each discipline and the possible horizons within it. Consider, for example, how advanced an AI's command of Arabic would be if a model were trained through Arabic digital dictionaries, poetic encyclopedias, and the major books of Arabic literature - the results would be astonishing. In this context, I recommend that the Qatar University introduce a diploma program for humanities students that equips them with essential knowledge in artificial intelligence and prepares them to lead future training initiatives for AI tools relevant to their fields of specialization.

