

DIGITAL HERMENEUTICS OF THE QUR'AN: TOWARDS A HOLISTIC MODEL OF FAITH-TECHNOLOGY INTEGRATION

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ABSTRACT

The examination of the Qur'an has experienced considerable advancement with the emergence of the digital epoch. The field of digital humanities has facilitated novel avenues for computational scrutiny of the Qur'anic text, encompassing word frequency analysis, semantic mapping, and intertextual networks. Nevertheless, epistemological inquiries surface: does the digital methodology encapsulate spiritual significance and the profundity of interpretation, or does it merely reduce the Qur'an to simplistic linguistic data? This article proposes a framework of digital Qur'an hermeneutics that amalgamates computational technology with traditional interpretative methodologies, alongside foundational principles of faith and social ethics. This investigation employs a literature review methodology with an interdisciplinary lens, incorporating hermeneutics, interpretation, and digital humanities. Consequently, a comprehensive model of digital hermeneutics for the Qur'an can function as a conduit between faith, technology, and societal values, fostering the development of a religious community that is responsive to the demands of the digital age.

Keywords: Digital Qur'an, Hermeneutics, Digital Humanities, Exegesis, Faith-Technology Integration

BACKGROUND

The development of digital humanities (DH) is currently one of the most prominent transformations in the academic world. Methods such as natural language processing (NLP), text mining, and computational linguistics have been widely used to analyze texts on a large scale, opening up new insights in the fields of history, linguistics, and cultural studies. These innovations have even extended to the use of deep learning and generative AI, which enable text processing with performance approaching or even surpassing that of humans (Bamman, 2023; Zhang et al., 2024).

In the context of Qur'anic studies, digitization has developed through various applications and platforms, such as Qur'an apps and digital corpus projects, for example, Corpus Coranicum. However, the majority of these initiatives focus more on providing texts or searching for verses, without touching on the methodological dimension of interpretation based on digital hermeneutics. In other words, the technology is already here, but its integration with classical interpretation traditions and methodologies is still relatively minimal (Corpus Coranicum, n.d.).

This situation raises epistemological issues. There is a concern that the digitization process will only make the Qur'an mere "text data," thereby neglecting its primary role as a book of guidance. As in the debate on educational hermeneutics in the digital age, massive data without a framework of meaning can lose its essential spiritual and social context (Rahman, 2024). Therefore, this study emphasizes the urgency of a holistic digital hermeneutics model of the Qur'an. This model not only utilizes the power of computational technology but also maintains the spiritual depth and integrity of the Qur'an as a sacred text. This approach is expected to enrich the international discourse on digital humanities while

affirming the contribution of Islamic exegesis studies in the global discourse on the relationship between faith, technology, and social values.

Based on this background, this study aims to answer several key questions: (1) How has the study of the Qur'an developed within the framework of digital humanities?; (2) What is the contribution of hermeneutics in bridging classical interpretation with digital methods?; and (3) How can a holistic model of faith-technology integration be developed in digital Qur'an studies?

RESEARCH METHOD

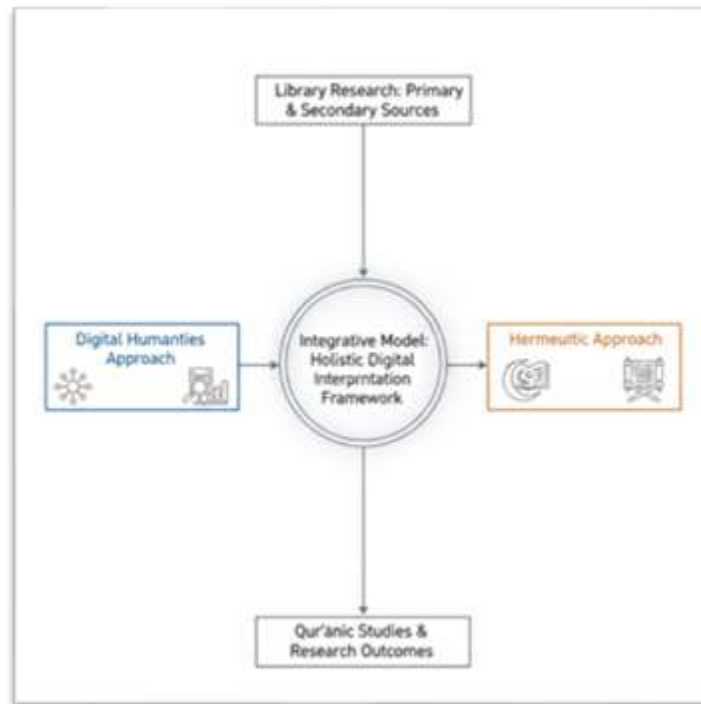
This study uses a qualitative approach with a library research method. The focus of the study is directed at exploring relevant literature from both primary and secondary sources. Primary sources include the text of the Qur'an along with classical and contemporary interpretations, while secondary sources include research related to digital humanities, hermeneutics, and academic studies on the digital Qur'an. The purpose of choosing this method is to construct a comprehensive conceptual framework, not to produce empirical field data.

The analytical approach used consists of three layers:

First, the digital humanities approach. This approach is used to examine the potential and limitations of using computational tools, such as natural language processing (NLP), text mining, and semantic analysis in the study of the Qur'an. Through this perspective, the study maps how digital technology can help expand the scope of Qur'anic text analysis and reveal patterns hidden behind linguistic structures (Bamman, 2023).

Second, a hermeneutic approach. In this layer, theories of meaning, text, and context are used as a framework to maintain the depth of Qur'anic interpretation. The hermeneutical principles introduced by Fazlur Rahman through double movement, Abu Zayd with the idea of textuality, and the contemporary *maqāṣidī* approach are used as a foundation in maintaining the epistemological integrity of the Qur'an as a book of guidance (Rahman, 1982; Abu Zayd, 2004; Auda, 2008).

Third, the integrative model. This study attempts to combine the two previous perspectives, namely the potential of computational tools from digital humanities with hermeneutical tafsir methodology. This integrative model is expected to produce a holistic digital interpretation framework: data-based but still maintaining the spiritual, social, and normative context of the Qur'an. In other words, this methodology not only maps the reality of the digitization of the Qur'an but also offers a new synthesis that is relevant in the international discourse on the integration of faith and technology.



Picture 1. Three-layer analysis approach

RESEARCH FINDINGS

3.1 Digital Humanities and Religious Studies

The development of digital humanities has changed the approach to textual studies globally. This transformation is evident in the use of methods such as natural language processing (NLP), text mining, and computational linguistics—which enable the exploration of patterns, themes, and narrative structures in religious texts with a broad scope and depth of analysis that was previously difficult to achieve (Berry, 2012; Bamman, 2023). For example, projects such as Culturomics have demonstrated how digital analysis of large corpora can reveal new historical and cultural insights, including in the context of religious studies (Berry, 2012).

In the field of religious studies, particularly in the West, the digitization of sacred texts such as the Bible and classical manuscripts has opened up new methods such as text mining and topic modeling, which help to systematically explore the conceptual relationships and internal structures of texts (Smith, 2016). However, when we shift to Qur'anic studies, current research still dominates in the aspect of digitization—such as digital Qur'an applications or the creation of digital corpora (e.g., Corpus Coranicum)—without paying attention to a deep and systematic approach to interpretation based on digital hermeneutics (Corpus Coranicum, n.d.; Sentosa et al., 2024).

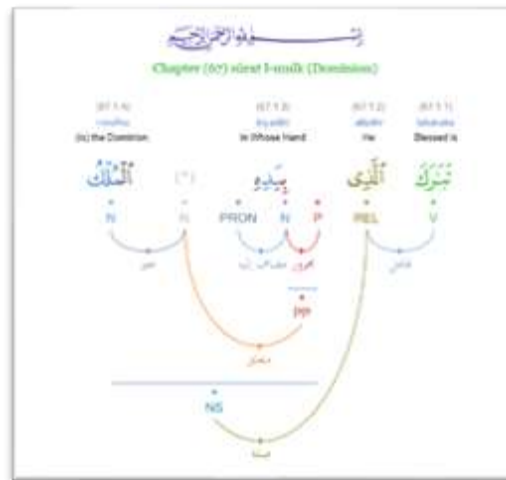
This raises epistemological doubts: will the digitization of the Qur'an merely transform the sacred text into a collection of data? Without an appropriate hermeneutical framework, spiritual richness and profound meaning may be lost, reducing the Qur'an to a “dataset” divorced from its power as a book of guidance (Rahman, 2024).

Therefore, a digital hermeneutics approach to the Qur'an is highly relevant and important. This model must be able to integrate digital technology elements—such as NLP and semantic analysis—with classical interpretation methods, ensuring that the analytical approach is not only technical but also preserves the spiritual depth and context of the Qur'an as a sacred text. In this context, this research not only strengthens the international discourse on digital humanities but also presents an Islamic perspective that can contribute meaningfully to global research (Sentosa et al., 2024; Said et al., 2020).

3.2 Digital Qur'an Studies

The development of Qur'anic studies in the digital realm can be traced back to several major initiatives that have paved the way for computer-based text processing. One important project is the **Qur'an**

Corpus developed at the University of Leeds. This project presents a systematic morphological and syntactic analysis of the Qur'an using computational linguistics technology. Through this framework, users can explore word structures, grammatical patterns, and semantic connections between verses in greater depth, which previously could only be done through manual philological studies (Atwell et al., 2011).



Picture 2. The Quranic Arabic Corpus (<http://corpus.quran.com/>)

Translation	Arabic word	Spoken and morphology
67:1-3 Bismillah Blessed is	بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ	V - 3rd person masculine singular (form VI) perfect verb هو يسمي
67:1-2 In whose hand	الَّذِي	REL - masculine singular relative pronoun هو يسمي
67:1-3 He	هُوَ	P - 3rd person masculine singular possessive pronoun هو يسمي
67:1-4 (is) the Dominion	الْعَزِيزِ	N - nominative masculine noun هو يسمي

Picture 3. The Quranic Arabic Corpus (<http://corpus.quran.com/>)

In addition, the Tanzil Project serves as a highly accurate reference standard for digital Qur'an texts. This project ensures the consistency and validity of the text published online, thereby providing a foundation for the development of applications, research, and the needs of Muslims globally in accessing the Qur'anic text. This accuracy is important because small differences in the digitization of the text can have a major impact on research and religious practice (Tanzil Project, n.d.).

However, academic literature highlights a number of methodological challenges in digitizing the Qur'anic text. Bauer (2021), for example, emphasizes the risk of meaning reduction: sacred texts that are rich in spiritual and hermeneutic dimensions can be reduced to mere linguistic data. This concern is in line with the epistemological criticism that has developed in the study of digital religion, namely that the shift from text as a “book of guidance” to text as a “dataset” has the potential to obscure transcendental values (Rahman, 2024; Said et al., 2020).

In the Indonesian context, several studies have also begun to examine the phenomenon of the digital Qur'an, although they are still limited to aspects of social acceptance and technological utilization. Sentosa, Hidayatullah, and Nisa (2024) show that the integration of digital approaches in religious studies needs to pay attention to the balance between academic, spiritual, and cultural dimensions. Meanwhile, the study by Said, Zaein, and Noor (2020) highlights how Indonesian scholars view the

opportunities and challenges presented by the digital mushaf, both in terms of text authenticity and daily religious practices.

From these developments, it can be seen that digital Qur'an studies are currently still focused on providing linguistic and technical data. In fact, the urgent need that must be addressed is how to bridge the technical aspects with a methodology of interpretation that preserves the spiritual richness of the Qur'an. This opens up space for a more holistic and epistemologically relevant model of digital Qur'an hermeneutics..

3.3 Digital Hermeneutics of the Qur'an

Previous discussions on digital Qur'an studies have shown significant achievements in terms of linguistic techniques and textual accuracy. However, these achievements have not fully addressed the epistemological needs of Qur'anic interpretation, which demands depth of meaning and spiritual relevance. It is at this point that the concept of hermeneutics becomes an important bridge that can connect the power of digital technology with the tradition of Islamic interpretation.

In the realm of Qur'anic studies, several modern figures have made significant contributions to the development of hermeneutical methodology. Fazlur Rahman, for example, with his double movement theory, emphasizes the importance of the dialectical process: moving from the historical context of the text to universal moral principles, then back to the contemporary context (Rahman, 1982). Meanwhile, Nasr Hamid Abu Zayd underlines the textuality aspect of the Qur'an, namely that the Qur'an can be understood through linguistic and semiotic tools without reducing its sacred dimension (Abu Zayd, 2004). On the other hand, the contemporary *maqāṣidī* approach offers a more normative and applicable framework, focusing on the objectives of sharia (*maqāṣid al-sharī'ah*) as the main orientation in interpreting texts (Auda, 2008).

The question that now arises is: can digital hermeneutics combine classical approaches to interpretation—both *riwāyah* (based on authoritative accounts) and *dirāyah* (based on rationality)—with the computational analysis methods offered by digital humanities? This integration is not merely technical, but rather an epistemological effort to ensure that digital Qur'anic studies do not stop at morphological and syntactic analysis, but also function as instruments of deeper interpretation.

Thus, digital Qur'an hermeneutics has the potential to present a new model: data-driven interpretation that remains grounded in the spiritual, historical, and ethical principles of Islamic tradition. Such a model will strengthen the contribution of Qur'anic studies to the international discourse on faith-technology integration, as well as enrich the methodological debate in digital humanities.

The theoretical framework of this research consists of three complementary epistemological pillars: Gadamerian Hermeneutics, Fazlur Rahman's Qur'anic Hermeneutics, and Digital Epistemology. Each pillar offers a strong philosophical and methodological foundation for constructing a holistic model of digital Qur'anic hermeneutics, integrating faith, text, and technology.

3.4 Gadamerian Hermeneutics—Fusion of Horizons

Gadamerian hermeneutics emphasizes that understanding is not an objective exploration of the text, but rather the result of a dialogue between the “horizon of meaning” of the interpreter and the text itself. Fusion of horizons explains how understanding is created when the reader's historical, linguistic, and experiential perspectives meet the horizon of the text through open and transformative dialogue (Gadamer, 2004; Gadamer explained by encyclopedia article). Epistemologically, this approach asserts that interpretation of the Qur'an must take into account the background of modern readers as well as respect for the tradition of interpretation. This avoids the reductionist tendency of digital hermeneutics—seeing the Qur'an only as a collection of data—in favor of continuous and contextual engagement with understanding.

3.5 Qur'anic Hermeneutics (Fazlur Rahman's Double Movement)

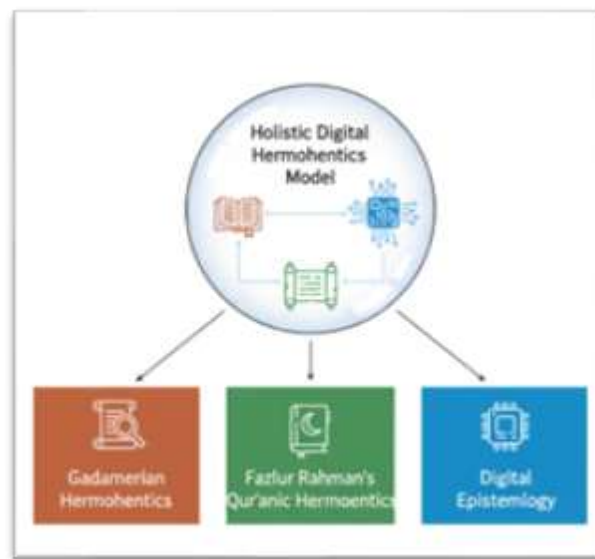
Fazlur Rahman introduced the concept of double movement, which is a two-stage dialectic process in interpretation: from contemporary reality to the context of the Qur'an's revelation, and back from the text to its application in the current context. These stages enable interpretation to fulfill two conditions: fidelity to the universal moral message and the ability to solve modern problems in a relevant manner (Fatih, 2019; Syauqi, 2022). Epistemologically, this method bridges the gap between sacred texts and the challenges of the present day, making Qur'anic interpretation active and contextually meaningful.

Its urgency is clear: without this movement, hermeneutics will not be able to respond to the spiritual needs of the people in the digital age.

3.6 Digital Epistemology

According to N. Katherine Hayles, digital technology not only facilitates the transmission of texts, but also changes the way we think and understand—a phenomenon called technogenesis—in which humans and media evolve together, creating new forms of cognition and a different distribution of knowledge from the past (Hayles, 2012; en.wikipedia Hayles latest). Digital epistemology implies that computational media—such as electronic Qur'an corpora or NLP algorithms—inherently inherit cognitive abilities that influence how we interpret sacred texts. The urgency is immense: without awareness of this epistemological shift, the use of technology in Qur'anic studies could distance us from the transformative meaning of the Qur'an.

3.7 Significance of Theoretical Integration



Picture 4. Three pillars of the digital hermeneutics model of the Qur'an

These three theories form a complementary structure: Gadamer provides a dialogical and historical-hermeneutic foundation; Rahman adds a moral orientation and contextual application; while Hayles reminds us of the epistemological transformation brought about by technology. This combination is crucial in constructing a model of digital Qur'an hermeneutics that not only analyzes words as data, but also respects the dimensions of faith, context, and digital knowledge transformation.

DISCUSSION

4.1 Mapping the Development of Digital Qur'an

Digital Qur'an studies have developed rapidly with the advent of increasingly advanced and open computing devices. One of the most prominent is the Quranic Arabic Corpus, a project from the University of Leeds that provides in-depth linguistic annotation—covering morphology, syntax, and dependency tree representation (dependency grammar). Each word in the Qur'anic text is analyzed using a computational approach, but the rules remain bound by the tradition of *i'rāb* (Dukes & Atwell, 2011; Quranic Arabic Corpus, 2025).

This project is not just a static corpus, but has been revised through an open collaboration process—automatic annotation followed by manual verification. As of the latest version, the scope of syntactic annotation has reached about 40% of the total verses (about 30,895 words), and the results have been used by researchers globally (Quranic Arabic Corpus, 2025). Various features such as POS tags, lemmatization, and dependency trees facilitate Qur'anic linguistic research that was previously difficult to conduct on a large scale (Quranic Arabic Treebank, 2025).

In addition, recent breakthroughs such as the Quranic Conversations system utilize modern NLP to develop semantic search tools, which are capable of linking verses with relevant interpretations based on semantic similarities—using models such as SNxLM with cosine similarity scores of up to 0.97. However, behind these technical advances lies the potential risk of reducing spiritual meaning to mere linguistic statistics. For example, analyzing the frequency of words such as “rahmah” or “‘adl” reveals distribution patterns, but these numbers do not automatically reveal the spiritual essence and moral purpose inherent in the Qur’anic text. Therefore, a hermeneutic approach is necessary to ensure that the Qur’an remains respected as a book of guidance, not merely as a collection of linguistic data.

4.2 Hermeneutics as the Guardian of the Depth of Interpretation

Digital Qur’an studies do offer the efficiency of data-based analysis, but approaches such as text mining or NLP alone are not enough. Without a hermeneutic framework, interpretations based solely on data risk ignoring the spiritual, historical, and contextual dimensions that are the soul of the Qur’an.

Hermeneutics emphasizes understanding through context—linguistic, historical, cultural, and structural. This basic principle implies that each verse can only be understood holistically if the relationships between parts of the text, the cultural background when the revelation was revealed, and the interpretations of previous scholars are also taken into account (Adib, 2022). This becomes imperative, especially when using digital data—computational methods such as word frequency or semantic clustering only produce formal maps; it is hermeneutics that gives life to these maps by interpreting them in the context of revelation and contemporary reality (Syamsuddin, 2017).

Epistemologically, Qur’anic hermeneutics not only functions as a method of interpretation, but also as a safeguard so that the Qur’an is not merely read as statistical data, but rather as a revelation with profound meaning. Processes such as Gadamer’s fusion of horizons and Fazlur Rahman’s double movement ensure that the Qur’an continues to be read as a transcendent message that is temporally relevant.

Thus, digital analysis of the Qur’an based on hermeneutics does not stop at linguistic mapping, but continues to the layers of spiritual, historical, and ethical meaning. As a researcher, I realize that digital mapping is the foundation, while hermeneutics constructs and explains the architecture of meaning on that foundation—making digital interpretation of the Qur’an not merely prescriptive, but reflective and guidance-guided.

4.3 Holistic Model Integration

The digital hermeneutics model of the Qur’an offered in this study is based on the integration of three complementary layers of analysis. This integration is intended to ensure that the use of digital technology does not fall into data reductionism, but rather strengthens the depth of understanding and relevance of the Qur’an as a book of guidance.

The first layer is computational linguistics, which utilizes natural language processing (NLP) technology, semantic analysis, and word frequency. This layer allows researchers to uncover hidden linguistic patterns, such as keyword distribution, semantic associations, or syntactic relationships. Projects such as the Qur’an Corpus from the University of Leeds and the Tanzil Project have shown how technology can expand the linguistic horizons of sacred texts (Dukes & Habash, 2010). However, this layer is descriptive and still requires an interpretive framework.

The second layer is contextual-hermeneutic, which ensures that linguistic data is not understood in isolation. Here, Qur’anic hermeneutical principles such as *sabab al-nuzūl*, historical background, and reader’s horizon are combined to bridge the text with social reality. Fazlur Rahman, with his double movement, emphasizes the importance of reading the text in its original context while articulating it in the current context (Rahman, 1982). This is even more important in the digital age, where the risk of reducing meaning to mere statistics is very high (Adib, 2022).

The third layer is spirituality-ethics, which reaffirms the position of the Qur’an as a book of guidance, not just textual data. This layer ensures that the use of computational tools remains oriented towards moral values and the objectives of sharia (*maqāṣid al-sharī‘ah*). According to Syamsuddin (2017), Qur’anic hermeneutics must always be directed towards the search for meanings that guide human ethical behavior, so that technology only functions as a tool, not as the determiner of final meaning.

Thus, this integrative model offers a holistic framework: digital technology acts as an instrument of linguistic analysis, hermeneutics as a framework for interpretation, and spirituality-ethics as an orientation of purpose. This integration not only answers academic needs in the realm of digital humanities, but also ensures that Qur'anic studies remain faithful to their transcendent and ethical dimensions.

4.4 Case Studies

To reinforce the idea of digital hermeneutics of the Qur'an, this section presents two case studies that demonstrate how an integrative approach can be used to bridge computational data and the spiritual meaning of the Qur'an.

First case: Digital analysis of the concept of “‘adl” (justice).

Using natural language processing (NLP) and corpus-based frequency analysis, the word ‘adl and its derivatives can be mapped in the Qur'anic mushaf. Preliminary analysis shows that this word appears not only in a legal context, but also in social, spiritual, and cosmological contexts. For example, in QS. An-Nahl [16]:90, Allah says:

إِنَّ اللَّهَ يَأْمُرُ بِالْعَدْلِ وَالْإِحْسَانِ وَإِيتَاءِ ذِي الْقُرْبَىٰ وَيَنْهَىٰ عَنِ الْفَحْشَاءِ وَالْمُنْكَرِ وَالْبَغْيِ ۚ يَعِظُكُمْ لَعَلَّكُمْ تَذَكَّرُونَ

“Indeed, Allah commands justice, kindness, and giving to relatives; and He forbids immorality, wrongdoing, and hostility. He instructs you so that you may take heed.”

Linguistically, frequency analysis shows that “‘adl” is often associated with the words ihsān and taqwā, which indicate a connection between social justice, individual spirituality, and collective morality. However, if read only as statistical data, the universal meaning of this verse has the potential to be reduced to a mere linguistic pattern. This is where hermeneutics plays a role in linking data with historical and spiritual horizons. Classical interpretations such as Tafsīr al-Ṭabarī emphasize that justice is the foundation of a comprehensive sharia, not merely a category of positive law. Thus, digital analysis can reveal the distribution of concepts, while hermeneutics confirms their ethical significance in human life.

Second case: Semantic mapping analysis of ecological verses.

The use of semantic clustering on ecology-related words such as الأرض (al-arḍ, earth), الماء (al-mā’, water), and النبات (al-nabāt, plants) shows a strong thematic connection. For example, QS. Al-An‘ām [6]:99 affirms:

وَهُوَ الَّذِي أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ نَبَاتَ كُلِّ شَيْءٍ فَأَخْرَجْنَا مِنْهُ خَضِرًا نُخْرِجُ مِنْهُ حَبًّا مُتَرَاكِبًا ۖ وَمِنَ النَّخْلِ مِنْ طَلْعِهَا

And gardens of grapes, and olives, and pomegranates, similar and dissimilar. Look at its fruit when it bears fruit and its ripeness. Indeed, in that are signs for a people who believe. signs for a people who believe.

“And it is He who sends down rain from the sky, and We bring forth with it all kinds of plants. Then We bring forth from it green crops, and from the green crops We bring forth grains in abundance, and from the date palm come forth clusters of dates hanging low, and gardens of grapes, olives, and pomegranates, similar and dissimilar. Observe its fruit when it bears fruit and ripens. Indeed, in that are signs for those who believe.”

Digitally, this verse can be mapped as part of the semantic cluster “Qur'anic ecology.” However, hermeneutics offers a deeper layer of interpretation: this verse does not merely describe natural phenomena, but affirms the theological relationship between creation and the Creator. In a contemporary context, this message can be understood as the basis of environmental ethics in Islam, which supports the global discourse of eco-theology (Nasr, 1996; Saniotis, 2012).

From these two case studies, it is evident that the integration of digital technology and hermeneutics produces a richer analysis. Technology enables the rapid exploration of broad linguistic patterns, while

hermeneutics ties the data to historical, spiritual, and ethical dimensions. Thus, the Qur'an remains readable as a living text, relevant to modern civilizational challenges such as social justice and ecological sustainability. Below, I present a table diagram to simplify the above narrative, making it easier to understand.

Table. Conclusion of case study results		
Aspect of Analysis	Case Study 1: The Concept of ‘adl (Justice)	Case Study 2: Ecological Verses
Computational Analysis	NLP and frequency analysis of the word 'adl shows its association with words like <i>ihsān</i> and <i>taqwā</i> .	Semantic clustering of ecological words like <i>al-arḍ</i> (earth) and <i>al-mā’</i> (water) reveals thematic connections.
Challenge	The universal meaning of the verse is reduced to a mere linguistic pattern, losing its deeper ethical and spiritual context.	The verse is read only as a description of a natural phenomenon, neglecting its theological relationship to the Creator.
Role of Hermeneutics	Hermeneutics connects the linguistic data to historical and spiritual horizons, confirming the ethical significance of justice as a comprehensive foundation of Sharia.	Hermeneutics provides a deeper layer of interpretation, affirming the theological connection between creation and the Creator, and establishing a basis for Islamic environmental ethics.
Integrated Outcome	The fusion of digital analysis and hermeneutics yields a richer understanding of justice, relevant to contemporary social challenges.	The integrated approach reveals a profound message in the verses, making the Qur'an a living text for modern ecological sustainability.

4.5 Novelty

This research presents novelty by offering a digital hermeneutics model of the Qur'an that does not stop at linguistic data analysis, but moves towards integration between computational layers, contextual hermeneutics, and Qur'anic spirituality. Through this model, the Qur'an is understood not only as a text that can be interpreted through word frequency, semantic mapping, or NLP algorithms, but also as a book of guidance that requires historical, ethical, and transcendent reading. Thus, the novelty of this research lies in bridging two epistemological worlds: the quantitative world of digital technology and the classical world of interpretation, rich in meaning (Al-Jallad, 2021). Another novelty is the placement of Qur'anic studies within the mainstream of international digital humanities, but with a distinctive Islamic emphasis. Until now, the discourse of digital humanities has been directed more towards Western classical texts, such as the Bible, the works of Shakespeare, or ancient Latin manuscripts (Berry, 2012; Smith, 2016). Through this research, the Qur'an is positioned as a global text that can be analyzed with the same tools, but with a different orientation: preserving its sacredness while developing its contextual meaning. In this way, Qur'anic studies are not only the “object” of digital research, but also contribute as an epistemological subject that expands the horizons of digital humanities itself (Mandair, 2022; Zadeh, 2020).

This novelty also correlates with the results of the analysis described earlier. For example, in mapping the development of the digital Qur'an (6.1), it was found that digital devices often reduce the meaning of the Qur'an to numbers and statistics. The digital hermeneutics model offered here is an answer to this reductionism, adding layers of hermeneutics and spirituality that maintain the depth of interpretation (Gruber, 2019). Similarly, the case study (6.4) on the analysis of the word 'adl (العدل) and ecological verses shows that digital data must be synergized with classical interpretations to discover ethical and theological dimensions. From this, it is clear that the novelty of this research is not only conceptual but also applicable—clearly seen in the analysis practices carried out.

Finally, the novelty of this research contributes to Islam in the global digital epistemology discourse. By combining Qur'anic hermeneutics and digital methodology, this research broadens the understanding of how sacred texts can be studied without losing their sacred value. This contribution is important because it shows that digitization is not a threat to the depth of interpretation, but rather an opportunity to give birth to new approaches that are more comprehensive and contextual (Behnam, 2023).

CONCLUSION

Digital hermeneutics of the Qur'an is a middle ground between the technical approach of digital humanities and the classical tradition of interpretation. With a holistic model—which combines computational linguistics, contextual hermeneutics, and Qur'anic spirituality—the study of the Qur'an can remain relevant in the digital age without losing its religious spirit. This also demonstrates Islam's contribution to building an integrative paradigm between faith, technology, and social values.

This study finds that the development of Qur'anic studies within the framework of digital humanities has shown significant progress in the last two decades. The presence of tools such as the Qur'an Corpus, Alfanous search engine, and Tanzil Project are important milestones in opening up new spaces for linguistic, syntactic, and semantic analysis of the Qur'anic text. However, these developments also present epistemological challenges in the form of reducing the meaning of the Qur'an to mere linguistic data or quantitative statistics. This indicates that although digital humanities provide great opportunities for Qur'anic studies, there are still concerns about the loss of the spiritual and ethical dimensions that are the main spirit of the holy book.

In this context, this study emphasizes that hermeneutics plays an important role in bridging classical interpretation with digital methods. The hermeneutic approach, as formulated by Fazlur Rahman through the concept of double movement, as well as the idea of the horizon of meaning in Gadamerian hermeneutics, provides a critical framework to ensure that the Qur'an is not merely treated as an object of data, but remains a living book of guidance. With hermeneutics, the results of computational analysis can be contextualized in accordance with the historical and cultural background, as well as the horizon of today's readers, so that the resulting meaning is not devoid of spiritual value.

Furthermore, this study formulates a holistic model of digital Qur'an hermeneutics that integrates three important layers: a linguistic-computational layer to utilize the power of text analysis technology; a contextual-hermeneutic layer to maintain connectivity with *sabab al-nuzūl*, classical *tafsir* traditions, and contemporary horizons; and a spirituality-ethical layer that ensures the Qur'an continues to be understood as a source of guidance, not merely a text. This model not only enriches the methodology of Qur'anic studies, but also shows that faith, technology, and social values can be brought together in a mutually reinforcing paradigm.

Thus, it can be concluded that digital Qur'an hermeneutics is a middle ground between the technical approach of digital humanities and the classical tradition of interpretation. This integrative model allows the study of the Qur'an to remain relevant in the digital age without losing its depth of meaning and religious spirit. This finding also provides an important contribution from Islam in building a global paradigm that integrates faith, technology, and humanity.

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