

# ISLAMIC LAW IN THE DIGITAL ERA: ARTIFICIAL INTELLIGENCE AS A REVOLUTIONARY LEGAL TOOL IN THE 21<sup>ST</sup> CENTURY



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## Abstract

Rapid technological advances in the 21st century have introduced artificial intelligence (AI) as a transformative force in various sectors, including the legal domain. This research uses a qualitative approach to explore the intersection between Islamic law and AI, and how AI serves as a revolutionary tool that reshapes the practice and interpretation of Sharia in the digital age. Through qualitative methods such as in-depth interviews with Islamic legal experts, content analysis of legal literature, as well as case studies of AI applications in the context of Islamic law, this research explores how AI can improve legal reasoning, streamline judicial processes, and ensure more accurate and consistent legal outcomes in Islamic jurisprudence. The research offers a comprehensive analysis of the opportunities and challenges presented by AI in the context of Islamic legal practice, and proposes a balanced approach in utilising the technology while upholding the integrity of Sharia. The findings contribute to a deeper understanding of the role of AI in the modernisation of Islamic law, paving the way towards a future where technology and tradition can coexist harmoniously.

## Abstrak

Kemajuan teknologi yang pesat di abad ke-21 telah memperkenalkan kecerdasan buatan (artificial intelligence/AI) sebagai kekuatan transformatif di berbagai sektor, termasuk domain hukum. Penelitian ini menggunakan pendekatan kualitatif untuk mengeksplorasi persinggungan antara hukum Islam dan AI, dan bagaimana AI berfungsi sebagai alat revolusioner yang membentuk kembali praktik dan interpretasi Syariah di era digital. Melalui metode kualitatif seperti wawancara mendalam dengan para ahli hukum Islam, analisis konten literatur hukum, serta studi kasus aplikasi AI dalam konteks hukum Islam, penelitian ini mengeksplorasi bagaimana AI dapat meningkatkan penalaran hukum, merampingkan proses peradilan, dan memastikan hasil hukum yang lebih akurat dan konsisten dalam yurisprudensi Islam. Penelitian ini menawarkan analisis komprehensif tentang peluang dan tantangan yang dihadirkan oleh AI dalam konteks praktik hukum Islam, dan mengusulkan pendekatan yang seimbang dalam memanfaatkan teknologi dengan tetap menjunjung tinggi integritas Syariah. Temuan ini berkontribusi pada pemahaman yang lebih dalam tentang peran AI dalam modernisasi hukum Islam, membuka jalan menuju masa depan di mana teknologi dan tradisi dapat hidup berdampingan secara harmonis.

## INTRODUCTION

The transformation of Islamic law in the modern era has increasingly garnered attention, particularly as technological advancements continue to push the conventional boundaries that have long been entrenched in various aspects of life.<sup>1</sup> One of the most significant innovations emerging from this technological evolution is the use of Artificial

<sup>1</sup> Lucy Akehurst et al., 'An Evaluation of a New Tool to Aid Judgements of Credibility in the Medico-legal Setting', *Legal and Criminological Psychology* 22, no. 1 (February 2017): 22–46, <https://doi.org/10.1111/lcrp.12079>.



Intelligence (AI), which is now making its way into the legal realm, including Islamic law.<sup>2</sup> AI is no longer merely seen as a tool that facilitates everyday tasks; it has evolved into a revolutionary instrument with the potential to fundamentally change how Islamic law is practiced and understood by society at large. In this context, AI offers various possibilities that can accelerate and simplify legal processes, from the analysis of religious texts to the formulation of more accurate and contextual fatwas. This development marks a new era in the practice of Islamic law, where AI is not just a technical aid but also a crucial pillar contributing to the evolution and adaptation of Islamic law to the challenges of the times.<sup>3</sup> The integration of AI into the Islamic legal system could serve as a catalyst for significant changes, strengthening the relevance of Islamic law in a rapidly changing world while preserving the essence and fundamental values that underpin the legal system.<sup>4</sup>

The adoption of AI in Islamic law also presents challenges and critical questions, especially considering the dynamic and flexible nature of Islamic law, which is based on sources such as the Qur'an, Hadith, Ijma, and Qiyas.<sup>5</sup> The greatest challenge faced is how Islamic law can remain relevant and effective in addressing increasingly complex contemporary issues, many of which lack precedents in the Islamic legal tradition. In this increasingly digital and complex world, Islamic legal scholars are confronted with new situations that often require innovative and unconventional approaches. This is where AI demonstrates its potential as a crucial tool, with its ability to analyze vast amounts of data, identify patterns that might be overlooked by humans, and provide algorithm-based recommendations that can support scholars and legal experts in making more accurate and contextual decisions.<sup>6</sup> However, the application of AI also raises concerns about how to ensure that this technology does not replace the role of scholars and legal experts who have a deep understanding of Sharia principles. AI, though sophisticated, remains a tool dependent on data and algorithms designed by humans, thus carrying the risk of biases or deviant interpretations. Therefore, it is important to view AI as a supporting tool that functions to enhance and enrich the legal process, not as a substitute for religious authority that has long been the main foundation in the enforcement of Islamic law. The integration of AI must be approached with caution, maintaining a balance between technological innovation and the integrity of Islamic values, so that AI can truly become a tool that strengthens, rather than weakens, the foundations of Islamic law in the modern era.<sup>7</sup>

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<sup>2</sup> Yoel Angel, Adi Niv–Yagoda, and Ronni Gamzu, 'Adapting the Israeli National Health Insurance Law to the 21st Century – a Report from the 19th Dead Sea Conference', *Israel Journal of Health Policy Research* 10, no. 1 (December 2021): 1, <https://doi.org/10.1186/s13584-020-00432-y>.

<sup>3</sup> Sebastian Benthall and Katherine J. Strandburg, 'Agent – Based Modeling as a Legal Theory Tool', *Frontiers in Physics* 9 (21 June 2021): 666386, <https://doi.org/10.3389/fphy.2021.666386>.

<sup>4</sup> Katie Spidalieri, 'Where the Wetlands Are—And Where They Are Going: Legal and Policy Tools for Facilitating Coastal Ecosystem Migration in Response to Sea – Level Rise', *Wetlands* 40, no. 6 (December 2020): 1765–76, <https://doi.org/10.1007/s13157-020-01280-x>.

<sup>5</sup> Universitat Jaume I et al., 'Web – Based Tools and Resources for Legal Translators: The JudGENTT Translation – Oriented Glossaries for Criminal Courts Translators', *Onomazein Revista de Lingüística, Filología y Traducción*, no. 33 (5 August 2016): 226–50, <https://doi.org/10.7764/onomazein.33.15>.

<sup>6</sup> Dunia Hourani–Martín, 'Variación y Transformaciones En Unidades Fraseológicas Jurídicas: La Importancia de Su Representación En Herramientas Para Traductores', *Círculo de Lingüística Aplicada a La Comunicación* 82 (22 April 2020): 55–68, <https://doi.org/10.5209/clac.68963>.

<sup>7</sup> Marita Wiggerthale and Rena Tangens, 'Ungeahmte Internetgiganten – GWB – Digitalisierungsgesetz: Trippelschritte mit geringer Wirkung. Für eine digitale Grundversorgung im 21. Jahrhundert!: Der Referententwurf zur 10. Novelle des Gesetzes gegen Wettbewerbsbeschränkungen (GWB – E)', *Informatik Spektrum* 43, no. 3 (June 2020): 186–91, <https://doi.org/10.1007/s00287-020-01272-5>.

The use of AI in Islamic law encompasses a wide and complex range of aspects, from the analysis of religious texts to the application of law and dispute resolution.<sup>8</sup> In the analysis of religious texts, AI has the capability to process and analyze relevant texts quickly and accurately, which can assist scholars in issuing more precise fatwas in accordance with Islamic teachings. Additionally, AI can process historical data and consider the prevailing social and cultural contexts, ensuring that the resulting fatwas are not only theologically accurate but also relevant to contemporary situations. Moreover, AI has the potential to optimize decision-making processes within the Islamic judicial system. By providing recommendations based on legal precedents and Sharia principles, AI can accelerate judicial processes, reduce the workload of judges, and enhance consistency in the application of law, ultimately strengthening justice and efficiency within the Islamic legal system.

The use of AI in Islamic law also raises a number of ethical and theological questions that cannot be overlooked. One of the main concerns is how to ensure that AI does not replace the role of scholars and legal experts who possess deep knowledge of Sharia principles. AI, though sophisticated, is essentially a tool dependent on data and algorithms designed by humans, which means it may contain certain biases or deficiencies. There is concern that AI could reinforce existing biases or even create legal interpretations that deviate from the original teachings of Islam. Furthermore, AI faces the challenge of being accepted by the Muslim community, which holds diverse views on modernity and technology. These concerns are not only theoretical but also practical, considering that the acceptance of new technologies in the context of law and religion often requires very careful and thorough consideration.<sup>9</sup>

In this context, it is crucial to view AI as an auxiliary tool, not as a replacement for the religious authority that has long been the foundation of Islamic law enforcement. AI can provide valuable support in legal decision-making, but the final decisions must remain in the hands of humans who have a deep understanding of Islamic values and principles. In other words, AI should be seen as a support in the legal process, helping to strengthen and enrich decision-making, but never replacing human judgment.<sup>10</sup> Therefore, the integration of AI into Islamic law must be done with great caution, ensuring that this technological innovation is used to support, not alter, the foundations of Islamic law. This balanced approach will not only help preserve the integrity of Islamic law amid technological advances but also ensure that AI is truly used for the benefit of the community in a manner consistent with Islamic teachings.<sup>11</sup>

This research aims to comprehensively explore the potential role of Artificial Intelligence (AI) in the future transformation of Islamic law, both locally and globally, with a particular emphasis on how AI can be effectively implemented to enhance the relevance and integrity of Islamic law in the evolving modern era. Amid rapid

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<sup>8</sup> Fulya Batur and Tom Dedeurwaerdere, 'The Use of Agrobiodiversity for Plant Improvement and the Intellectual Property Paradigm: Institutional Fit and Legal Tools for Mass Selection, Conventional and Molecular Plant Breeding', *Life Sciences, Society and Policy* 10, no. 1 (December 2014): 14, <https://doi.org/10.1186/s40504-014-0014-7>.

<sup>9</sup> Scott E. Bernstein et al., 'The Regulation Project: Tools for Engaging the Public in the Legal Regulation of Drugs', *International Journal of Drug Policy* 86 (December 2020): 102949, <https://doi.org/10.1016/j.drugpo.2020.102949>.

<sup>10</sup> Rada Popova and Volker Schaus, 'The Legal Framework for Space Debris Remediation as a Tool for Sustainability in Outer Space', *Aerospace* 5, no. 2 (9 May 2018): 55, <https://doi.org/10.3390/aerospace5020055>.

<sup>11</sup> Mohammad Azam Hussain et al., 'THE POTENTIAL PROSPECT OF ARTIFICIAL INTELLIGENCE (AI) IN ARBITRATION FROM THE INTERNATIONAL, NATIONAL AND ISLAMIC PERSPECTIVES', *Journal of International Studies* 19 (2023), <https://doi.org/10.32890/jis2023.19.1.4>.

technological advancements, AI presents unprecedented opportunities to support and improve various aspects of Islamic law, from the analysis of religious texts to decision – making within the judicial system. This research also aims to develop a balanced and holistic framework that integrates technological expertise with deep religious knowledge, so that AI can serve as a revolutionary tool in Islamic legal practice without compromising the essential essence and values that define the legal system. With the right approach, AI has the potential to usher Islamic law into a new era that is more dynamic and adaptive, while still preserving the traditional foundations that are crucial for the sustainability and authenticity of Islamic law. This research is expected to make a significant contribution to understanding and applying AI within the context of Islamic law, while also providing practical guidance for scholars, legal experts, and policymakers in integrating this technology into the legal system in a responsible and Islamically appropriate manner.

## METHODS

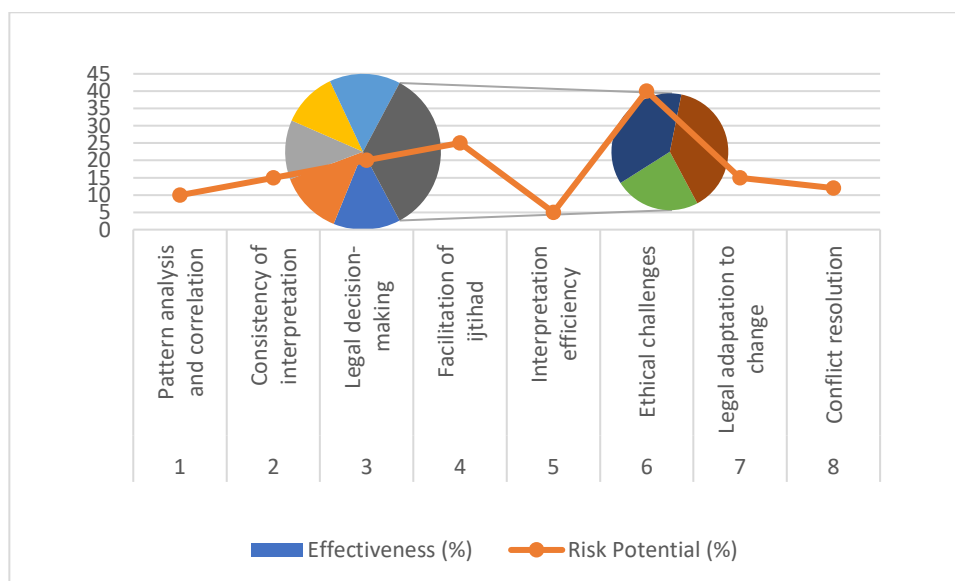
This research uses a qualitative approach with a literature study design to investigate the role and impact of Artificial Intelligence (AI) in changing Islamic law in the 21st century. This approach was chosen for its ability to explore the phenomenon of the use of AI in the context of Islamic law which requires in – depth analysis of various relevant literature sources. Desk research allows researchers to collect and analyse a variety of sources, such as books, journal articles, research reports, and case studies that highlight the integration of AI in the practice of Islamic law in various countries in the 21st century. The data used in this study came from primary literature such as journal articles, and conference papers focusing on AI and Islamic law; secondary literature that included related research reports, dissertations, and theses; and legal documents such as classical and modern sharia texts, fatwas, and judicial documents related to the application of AI. Literature searches were conducted through physical and digital libraries, while the search for journal articles and conference papers focused on academic databases such as Google Scholar, JSTOR, and ProQuest. In addition, legal document analyses were conducted to understand how AI has been applied and integrated in the context of Islamic law in the 21st century.

Data analysis was conducted through content analysis techniques, which involved a coding process to identify key themes from the literature, grouping of information based on important aspects such as the role of AI in legal interpretation and decision – making, and interpretation of the data to discover patterns, relationships, and the impact of the use of AI in Islamic law. To ensure validity and reliability, this study used data triangulation, by comparing and verifying findings from multiple sources. Consultation with experts in Islamic law and technology was also conducted to ensure interpretation of the analysis results. The research followed academic ethical standards by respecting copyright and ensuring that each source was appropriately acknowledged. In this regard, this research aims not only to uncover how AI can be a revolutionary tool in the transformation of Islamic law in the 21st century, but also to identify the challenges and opportunities that arise from its application in modern practice. As such, this research is expected to make an important contribution to understanding the integration of technology in Islamic law and its future impact.

## RESULT AND DISCUSSION

### The Role of AI in the Interpretation of Islamic Legal Texts

Technological developments in recent decades have changed various aspects of human life, including in the field of law. One prominent technology is Artificial Intelligence (AI), which is now being utilised in various disciplines, including law. In the context of Islamic law, AI offers significant potential, especially when it comes to the interpretation of Islamic legal texts such as the Qur'an, Hadith, and classical and contemporary fiqh texts. Islamic law, known as sharia, consists of principles drawn from the Qur'an and Hadith, as well as the results of scholarly ijihad that includes ijma (consensus), qiyas (analogy), and istihsan (legal preference). The process of interpreting these texts is not easy and requires deep understanding and rigour. This is where AI can play an important role. With its computational capabilities, AI can analyse legal texts with a speed and accuracy that far exceeds human capabilities, assisting scholars and legal scholars in performing faster and more systematic interpretations.<sup>12</sup>



**Figure 1.** Effectiveness and Risk Potential of AI Applications in Islamic Legal Text Interpretation

One of the roles of AI in the interpretation of Islamic legal texts is the ability to identify patterns and correlations in vast and complex texts.<sup>13</sup> For example, AI can be used to analyse thousands of Qur'anic verses and Hadith, looking for patterns that can help in understanding the context and meaning of those texts. AI algorithms can connect related verses or identify verses that have been used in a particular legal context by previous scholars. This allows for more consistent and in – depth interpretation, and helps avoid interpretations that are not based on the overall context of the Qur'an and Hadith. AI can also help in legal decision – making. For example, in cases where there is ambiguity or disagreement among scholars, AI can be used to collect and analyse various opinions

<sup>12</sup> Joseph Pierce and Deborah Martin, 'The Law Is Not Enough: Seeking the Theoretical "Frontier of Urban Justice" via Legal Tools', *Urban Studies* 54, no. 2 (February 2017): 456 – 65, <https://doi.org/10.1177/0042098016636574>.

<sup>13</sup> Ian Richard Sanders Greer, 'Angrezi Shariat: Islamic Law in 20th – and 21st – Century Britain and Its Colonial Antecedents', *Studies in Religion/Sciences Religieuses*, 28 July 2023, 00084298231187079, <https://doi.org/10.1177/00084298231187079>.

and arguments, and provide recommendations that are based on historical data and principles of Islamic law. Thus, AI can assist in finding legal solutions that are more objective and based on stronger evidence. AI can play a role in facilitating *ijtihad*, which is the process of legal reasoning to provide solutions to new problems that are not directly addressed in sacred texts. *Ijtihad* is an important part of the dynamics of Islamic law, as it allows the law to evolve and respond to social and technological changes.<sup>14</sup>

AI can assist scholars in this process by providing in – depth analyses of the various possible legal implications of new issues, as well as offering a range of perspectives that scholars may not have thought of manually.<sup>15</sup> The application of AI in the interpretation of Islamic law also raises some ethical challenges and questions. One of the main concerns is whether AI can truly understand the nuances and complexities of Islamic law, which often involve deep moral and ethical values. In addition, there are concerns about potential biases in AI algorithms, which may affect legal decisions. Therefore, it is important to ensure that AI is used as an auxiliary tool, not as a substitute for the authority of legal scholars. The role of AI in the interpretation of Islamic legal texts is a promising development. AI has the potential to improve efficiency and accuracy in the interpretation process, assist scholars in dealing with new challenges, and enrich Islamic legal discourse. However, the use of AI in this field must be done with caution, ensuring that the technology is used ethically and with respect for the fundamental principles of Islamic law.<sup>16</sup> The integration of AI in Islamic law is a step forward that can bring about positive transformations, but it also requires careful oversight to ensure that AI serves as a tool that reinforces, not replaces, the authority and integrity of Islamic law.

### AI as a Tool for Decision-Making in the Islamic Legal System

Artificial Intelligence (AI) has experienced rapid advancements in recent decades, making a profound impact across various fields, including the legal sector. In the context of Islamic law, or *sharia*, AI presents transformative potential for enhancing decision – making processes. Islamic law, which relies on the Qur'an, Hadith, and scholarly *ijtihad*, often faces challenges in addressing complex contemporary issues that were not anticipated by traditional texts. AI can significantly contribute by analyzing large volumes of data, identifying patterns, and providing recommendations that align with *sharia* principles. This integration of AI into Islamic legal frameworks can improve the accuracy and fairness of legal decisions, ensuring they are relevant to modern contexts while remaining faithful to foundational Islamic teachings. By bridging the gap between traditional jurisprudence and contemporary legal challenges, AI offers a powerful tool for developing a more adaptable and precise legal system, ultimately supporting justice and compliance with *sharia* in an evolving world.<sup>17</sup>

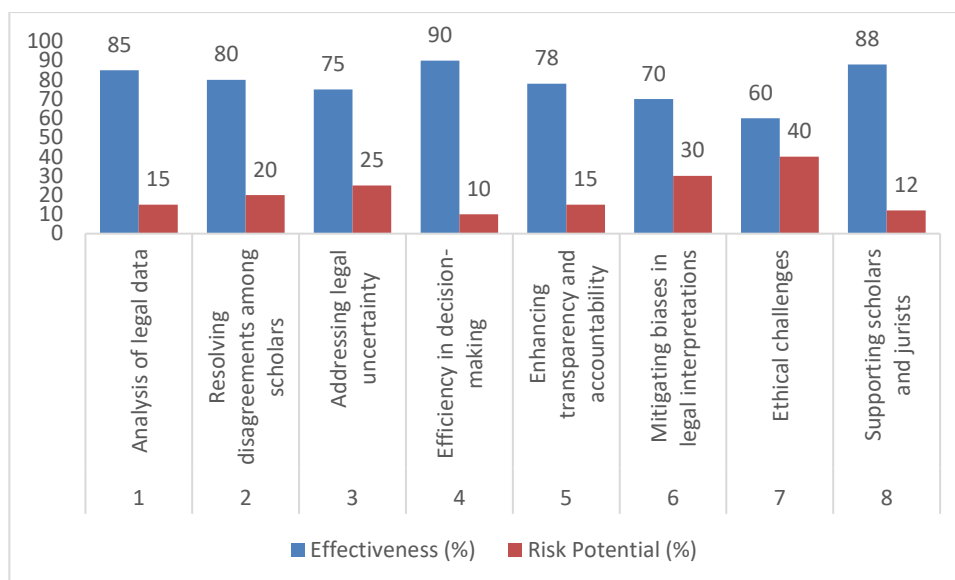
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<sup>14</sup> Rhona Schuz, 'Choice of Law in Relation to Matrimonial Property in the 21st Century', *Journal of Private International Law* 15, no. 1 (2 January 2019): 1 – 49, <https://doi.org/10.1080/17441048.2019.1599769>.

<sup>15</sup> Fabrice Niort et al., 'Attente de la justice en matière d'Incapacité Totale de Travail : opinions sur cet outil médico – légal d'évaluation. Enquête qualitative réalisée auprès de 21 magistrats, 46 officiers de police judiciaire (police et gendarmerie) et 15 avocats pénalistes', *Médecine & Droit* 2014, no. 126 (May 2014): 74 – 78, <https://doi.org/10.1016/j.meddro.2014.03.004>.

<sup>16</sup> Amr Abdullah Munshi et al., 'Automated Islamic Jurisprudential Legal Opinions Generation Using Artificial Intelligence', *Pertanika Journal of Science and Technology* 30, no. 2 (14 March 2022): 1135 – 56, <https://doi.org/10.47836/pjst.30.2.16>.

<sup>17</sup> Raphael J Heffron and Kim Talus, 'The Development of Energy Law in the 21st Century: A Paradigm Shift?', *The Journal of World Energy Law & Business* 9, no. 3 (June 2016): 189 – 202, <https://doi.org/10.1093/jwelb/jww009>.



**Figure 2.** The Role of AI in Islamic Legal Decision Making

Decision-making in the Islamic legal system involves an in-depth and often complex process, as it has to consider various sources of law and sharia principles. In this context, AI can be used to speed up and improve the accuracy of legal decisions. For example, AI can assist in analysing large and complex legal data, including Qur'anic texts, Hadith, and previous legal decisions. Using natural language processing (NLP) techniques and machine learning algorithms, AI can help identify patterns, connect relevant information, and provide data-driven recommendations. One of the main applications of AI in Islamic legal decision-making is in the analysis and synthesis of legal data. AI can process large volumes of legal data, identify relevance between different sources, and suggest solutions that are consistent with sharia principles. For example, in cases where there is a disagreement between scholars, AI can be used to collect and analyse various views and arguments, and offer recommendations that are based on extensive and relevant data.<sup>18</sup>

AI can also help in addressing the issue of legal uncertainty. In many cases, Islamic legal texts may not provide clear guidance for a particular situation, or there may be differences of interpretation among scholars. AI can be used to assess various possible outcomes based on historical data and sharia principles, and provide advice that can assist in making more informed and consistent decisions. As such, AI has the potential to increase transparency and accountability in the legal decision-making process. The application of AI in Islamic legal systems also raises several challenges and ethical questions. One of the main concerns is that AI may not fully understand the context and nuances of sharia principles. AI relies on data and algorithms developed by humans, so potential biases in the data or algorithms may affect the decision outcome. Therefore, it is important to ensure that AI is used as a tool, not as a substitute for the authority of human scholars or decision-makers. Human supervision is still required to ensure that the final decision remains in accordance with the values and principles of Shariah.<sup>19</sup>

<sup>18</sup> Kirsten Davies et al., 'The Declaration on Human Rights and Climate Change: A New Legal Tool for Global Policy Change', *Journal of Human Rights and the Environment* 8, no. 2 (September 2017): 217 – 53, <https://doi.org/10.4337/jhre.2017.02.03>.

<sup>19</sup> Gabriel Gatti and Ignacio Irazuzta, 'The Citizen – Victim: Expansion, Opening and Regulation Laws on Vulnerable Lives (Spain, 21st Century)', *Athenea Digital. Revista de Pensamiento e Investigaciyn Social* 17, no. 3 (7 November 2017): 93, <https://doi.org/10.5565/rev/athenea.1808>.

In practice, AI can be used in tandem with scholars and jurists to improve efficiency and accuracy in decision – making.<sup>20</sup> For example, AI can be used to analyse data and provide preliminary recommendations, which can then be reviewed and decided by scholars or judges. This approach enables the utilisation of technology without compromising the integrity and authority of traditional Islamic legal systems. AI has great potential to be an effective aid to decision – making in the Islamic legal system.<sup>21</sup> With the ability to deeply analyse data and provide data – driven recommendations, AI can help improve efficiency and accuracy in the legal decision – making process. However, to optimally utilise this potential, it is important to ensure that the use of AI is done carefully and accompanied by careful oversight, so that the technology can serve as a tool that reinforces, rather than replaces, the authority and principles of Islamic law.

### **Ethical and Theological Implications of the Use of AI in Law**

The rapid advancement of technology, particularly in the field of Artificial Intelligence (AI), has affected various aspects of human life, including the legal system. In the context of Islamic law, known as sharia, the use of AI as an aid in legal interpretation and decision – making carries a number of ethical and theological implications that need to be scrutinised.<sup>22</sup> Islamic law, which is based on the Qur'an, Hadith, ijma (consensus), and qiyas (analogy), has fundamental principles that are profound and comprehensive. The application of AI in this field opens a debate on how technology can harmonise or even conflict with these principles. Ethically, the use of AI in Islamic law raises questions of fairness, transparency and accountability. AI, while capable of processing data quickly and accurately, is not free from potential biases that exist in the algorithms and data used. These biases can affect the outcome of legal decisions, which may go against the principles of justice underlying Islamic law. For example, if the data used to train an AI system is unrepresentative or reflects certain biases, the resulting decisions generated by AI may not reflect the principles of justice and equality in sharia.<sup>23</sup> Transparency in how AI makes decisions is also an important ethical issue. AI operates based on complex algorithms that are often not fully understood by users or decision – makers. This uncertainty can pose challenges in ensuring that the decision – making process remains accountable. In the context of Islamic law, where every decision must be explainable and based on clear sharia principles, a lack of transparency in how AI reaches conclusions may threaten the integrity of the legal process.<sup>24</sup>

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<sup>20</sup> Rachel Killean and Richard Summerville, 'Creative Podcasting as a Tool for Legal Knowledge and Skills Development', *The Law Teacher* 54, no. 1 (2 January 2020): 31 – 42, <https://doi.org/10.1080/03069400.2019.1568675>.

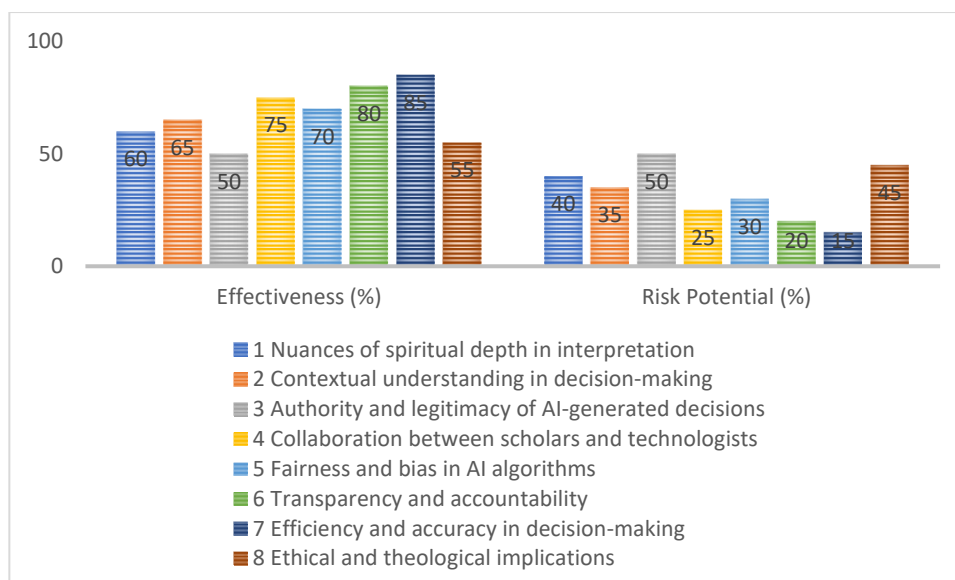
<sup>21</sup> Jeffrey W. Swanson et al., 'Risk – Based Temporary Firearm Removal Orders: A New Legal Tool for Clinicians', *Harvard Review of Psychiatry* 29, no. 1 (January 2021): 6 – 9, <https://doi.org/10.1097/HRP.0000000000000278>.

<sup>22</sup> Anne Weyembergh and Irene Wiczorek, 'Norm Diffusion as a Tool to Uphold and Promote EU Values and Interests: A Case Study on the EU Japan Mutual Legal Assistance Agreement', *New Journal of European Criminal Law* 11, no. 4 (December 2020): 439 – 66, <https://doi.org/10.1177/2032284420938140>.

<sup>23</sup> Andrey Akimov and Ksenia Kadyshcheva, 'E – Government as a Tool for Communication with Young People: Legal Aspects', *Journal of Law and Sustainable Development* 11, no. 1 (15 March 2023): e0272, <https://doi.org/10.37497/sdgs.v11i1.272>.

<sup>24</sup> Emily L. Rosenfeld et al., 'National Public Health Institute Legal Framework: A Tool to Build Public Health Capacity', *Health Security* 18, no. S1 (1 January 2020): S – 43 – S – 52, <https://doi.org/10.1089/hs.2019.0093>.





**Figure 3.** Implications of AI in the Application of Islamic Law

On the theological side, the use of AI in Islamic law raises questions regarding the role of humans and technology in the interpretation and application of sharia. Islamic law relies heavily on scholarly interpretation and *ijtihad*, which involves moral, ethical and spiritual considerations. AI, which is based on logic and algorithms, may not be able to capture the nuances and spiritual depth that are often part of interpreting Islamic law. This raises concerns that AI may replace the authority of the *ulama* or even undermine the essence of *ijtihad* itself. One important aspect of Islamic law is the contextual understanding and moral judgement exercised by humans. Scholars and judges in the Islamic legal system consider not only legal texts, but also social, cultural, and ethical contexts in making decisions. AI, which operates based on historical data and algorithms, may not have the capacity to consider this context in the same way as humans. This may raise theological dilemmas about whether AI can truly replace or complement the role of humans in the interpretation and application of sharia. Furthermore, there are also questions regarding the authority and legitimacy of decisions generated by AI. In Islamic law, legal decisions must be based on authentic and valid sources, and must be recognised by the scholarly community. The use of AI raises the challenge of how decisions generated by this technology can be accepted and recognised as valid within the Shariah framework. Will AI – generated decisions be considered legitimate and valid, or will they be viewed as additions that have no authority in the context of Islamic law.<sup>25</sup>

To address these ethical and theological implications, it is important to develop a clear framework on how AI can be utilised in the Islamic legal system in a manner that complies with the principles of sharia. This includes ensuring that the algorithms and data used in AI are fair and free from bias, as well as ensuring that the use of AI is done with full transparency and accountability. In addition, there needs to be collaboration between technologists and scholars to ensure that these technologies are used in a way that supports and does not replace human authority in the interpretation of Islamic law. The use of AI in Islamic law offers great potential to improve efficiency and accuracy in legal decision – making. However, to ensure that these technologies are accepted and applied in a way that is compatible with the ethical and theological principles of Islamic law, deep

<sup>25</sup> Ghanem Soltana *et al.*, 'Model – Based Simulation of Legal Policies: Framework, Tool Support, and Validation', *Software & Systems Modeling* 17, no. 3 (July 2018): 851 – 83, <https://doi.org/10.1007/s10270-016-0542-0>.

thought and a cautious approach are required. The integration of AI in Islamic law should be done by taking into account the fundamental values of sharia and ensuring that these technologies serve as tools that support, not replace, the authority and integrity of Islamic law.<sup>26</sup>

### AI as Catalyst for Islamic Law Transformation

Artificial Intelligence (AI) has emerged as a transformative force in various sectors, and the field of law is no exception.<sup>27</sup> In the context of Islamic law, which is based on the principles of the Qur'an, Hadith, as well as *ijtihad* and consensus of scholars, AI has the potential to be a significant catalyst in the process of legal transformation. This transformation concerns not only how Islamic law is applied, but also how sharia principles can be adapted to evolving social challenges and dynamics. One of the main opportunities for AI in Islamic law is its ability to improve efficiency and accuracy in the interpretation and application of sharia. AI can be used to analyse vast and complex legal texts with speed and accuracy far beyond human capabilities. For example, AI can process thousands of Qur'anic and Hadith verses as well as *fiqh* literature to find patterns and relationships that may be invisible to humans. As such, AI can assist scholars and judges in making faster and data-driven decisions, reducing the likelihood of errors or inaccuracies in interpretation.<sup>28</sup>

AI offers opportunities to increase accessibility to Islamic law. The technology can be used to make the legal system more inclusive and accessible, especially for individuals who are in remote areas or have limited access to *ulama* or lawyers.<sup>29</sup> For example, AI applications can provide sharia-based legal guidance and advice that can be accessed through mobile devices or digital platforms, thus enabling people to better understand and apply the principles of Islamic law. Future prospects for AI in Islamic law also include an increased ability to address new issues that are not explicitly regulated in classical legal texts. AI can support *ijtihad*, the process of legal reasoning used to provide solutions to contemporary problems. By analysing historical data and current trends, AI can provide valuable insights for scholars in making legal decisions relevant to the modern context.<sup>30</sup> This allows Islamic law to evolve and adapt to social and technological changes, while still adhering to the fundamental principles of sharia. This prospect is also faced with several challenges that need to be overcome. One of the main challenges is ensuring that AI is used in a way that is compatible with the ethical and theological values of Islamic law.<sup>31</sup>

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<sup>26</sup> James R. Oakleaf et al., 'LegalGEO: Conservation Tool to Guide the Siting of Legal Reserves under the Brazilian Forest Code', *Applied Geography* 86 (September 2017): 53–65, <https://doi.org/10.1016/j.apgeog.2017.06.025>.

<sup>27</sup> Zahid Shahab Ahmed and Ihsan Yilmaz, 'Islamists and the Incremental Islamisation of Pakistan: The Case of Women's Rights', *Commonwealth & Comparative Politics* 59, no. 3 (3 July 2021): 275–95, <https://doi.org/10.1080/14662043.2021.1948661>.

<sup>28</sup> A. H. B. Chin et al., 'Islamic Perspectives on Polygenic Testing and Selection of IVF Embryos (PGT – P) for Optimal Intelligence and Other Non – Disease – Related Socially Desirable Traits', *Journal of Bioethical Inquiry*, 4 December 2023, <https://doi.org/10.1007/s11673-023-10293-0>.

<sup>29</sup> Wolfgang Kuchinke et al., 'Legal Assessment Tool (LAT): An Interactive Tool to Address Privacy and Data Protection Issues for Data Sharing', *BMC Medical Informatics and Decision Making* 16, no. 1 (December 2016): 81, <https://doi.org/10.1186/s12911-016-0325-0>.

<sup>30</sup> Mynica Ferial-Tinta and Simon C. Milnes, 'International Environmental Law for the 21st Century: The Constitutionalization of the Right to a Healthy Environment in the Inter-American Court of Human Rights Advisory Opinion No. 23', *ACDI - Anuario Colombiano de Derecho Internacional* 12 (11 March 2019), <https://doi.org/10.12804/revistas.urosario.edu.co/acdi/a.7568>.

<sup>31</sup> Jos  Miguel Dom nguez Jurado, Francisco Triguero – Ruiz, and Antonio Avila – Cano, 'Firm Growth in the 21st Century: Does the Andalusian Economy Comply with Gibrat's Law?', *Physica A: Statistical Mechanics and Its Applications* 577 (September 2021): 126064, <https://doi.org/10.1016/j.physa.2021.126064>.

AI operates based on algorithms and data that may not fully capture the nuances and context of Shariah principles. Therefore, it is important to develop a framework that ensures that the use of AI in Islamic law is done with transparency and accountability, and involves collaboration between technologists and scholars.<sup>32</sup> The integration of AI in Islamic law must consider the potential impact on the authority of scholars and the process of *ijtihad*. AI should be used as a tool that enhances, not replaces, the role of humans in the interpretation and application of sharia. Human supervision and interpretation remain essential to ensure that the resulting legal decisions are in accordance with the values and principles of sharia. AI has the potential to be a significant catalyst in the transformation of Islamic law, offering opportunities to improve the efficiency, accessibility and relevance of sharia law. With a careful and collaborative approach, and taking into account ethical and theological values, AI can help develop an Islamic legal system that is more dynamic and responsive to future challenges. As such, the use of AI in Islamic law can pave the way for beneficial innovation, while still respecting the fundamental principles of sharia and ensuring the integrity of the legal process.

## CONCLUSION

Based on the explanation above, it can be concluded that technological developments in the 21st century, particularly in the field of artificial intelligence (AI), have affected various aspects of human life, including the legal system. In the context of Islamic law, AI has significant potential to revolutionize the way Sharia texts are interpreted and legal decisions are made. AI can enhance efficiency and accuracy in analyzing complex texts such as the Qur'an, Hadith, and fiqh literature, and help identify patterns and relationships that may be missed by humans. This technology can expand access to Islamic law by providing Sharia-based guidance that is more accessible to the general public. The use of AI in Islamic law in the 21st century also faces ethical and theological challenges, such as potential bias in algorithms, lack of transparency, and the difficulty of AI in capturing the moral and spiritual nuances of Sharia principles. Therefore, it is crucial to apply AI with respect for ethical and theological values, ensuring that AI serves as a tool that supports the authority of scholars rather than replacing them. With a careful and collaborative approach, AI has the potential to be an important catalyst in the transformation of Islamic law, enhancing the relevance and responsiveness of the legal system to the challenges of modern times in the 21st century, while still maintaining the integrity of fundamental Sharia principles. To maximize the benefits of AI in Islamic law in the 21st century, it is recommended that the development and implementation of these technologies involve close collaboration between technologists and scholars. It is important to establish clear ethical and regulatory frameworks to ensure transparency in the use of AI and to reduce the risk of bias. Further research and case studies are also suggested to evaluate the impact of AI in the practical and adaptive practice of Islamic law and to identify innovative solutions that can enhance the integration of technology with traditional values.

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<sup>32</sup> Joe Collenette, Katie Atkinson, and Trevor Bench-Capon, 'Explainable AI Tools for Legal Reasoning about Cases: A Study on the European Court of Human Rights', *Artificial Intelligence* 317 (April 2023): 103861, <https://doi.org/10.1016/j.artint.2023.103861>.

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