Development of Artificial Intelligence in the Dispute Resolution of Religious Courts

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Abstract

The number of disputes in religious courts continues to increase every year, giving great potential to develop the use of artificial intelligence to make it more efficient and effective by paying attention to the basic principles of Islamic law. This paper discusses the potential and development of the use of artificial intelligence technology in dispute cases in religious courts based on *Maslahah Mursalah*. The research method is juridical-normative, with a conceptual and philosophical approach. The research shows that the use of artificial intelligence in dispute resolution at religious courts is important for the reason that it can minimize the risk of errors and help judges determine legal considerations in the dispute resolution of Islamic law so that they are more accurate, effective, and efficient. The potential for developing the use of artificial intelligence technology in religious courts must consider several aspects, including the integration of artificial intelligence technology in the dispute resolution
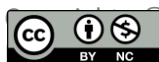
process in religious courts, the development of artificial intelligence-based decision support systems, and legal-ethical aspects of the use of artificial intelligence in religious courts. The formulation of the concept for developing the use of artificial intelligence technology in dispute resolution in the religious courts must be guided by the *Maslahah Mursalah* principle as a moral-ethical foundation within the legal system framework, which includes legal structure, legal substance, and legal culture so that the development of the use of artificial intelligence technology in the disputes resolution of Islamic law in religious courts be effective and justice for all.

KEYWORDS *Artificial Intelligence; Maslahah Mursalah; Religious Courts.*

Abstrak

Jumlah sengketa hukum Islam di Pengadilan Agama yang terus meningkat setiap tahun, sehingga sangat potensial untuk mengembangkan penggunaan *Artificial Intelligence* agar lebih efesien dan efektif dengan memperhatikan prinsip-prinsip dasar hukum Islam. Tulisan ini mendiskusikan tentang potensi dan pengembangan penggunaan teknologi *Artificial Intelligence* dalam menyelesaikan perkara di Pengadilan Agama berbasis *Maslahah Mursalah*. Metode penelitian adalah yuridis-normatif dengan pendekatan konseptual dan filosofis. Hasil penelitian menunjukan bahwa, penggunaan *Artificial Intelligence* dalam penyelesaian sengketa di Pengadilan Agama menjadi penting dengan alasan, dapat meminimalkan risiko kesalahan, membantu hakim untuk menentukan pertimbangan hukum dalam menyelesaikan sengketa hukum Islam agar lebih akurat, efektif, dan efisien. Potensi pengembangan penggunaan teknologi *Artificial Intelligence* di Peradilan Agama harus mempertimbangkan beberapa aspek, antara lain integrasi teknologi *Artificial Intelligence* dalam proses penyelesaian sengketa di Peradilan Agama, pengembangan sistem pendukung keputusan berbasis *Artificial Intelligence*, regulasi dan aspek etika dalam penggunaan *Artificial Intelligence*. Formulasi konsep pengembangan penggunaan teknologi *Artificial Intelligence* dalam penyelesaian sengketa di Peradilan Agama harus berpedoman pada prinsip *Maslahah Mursalah* sebagai landasan etis moral dalam kerangka sistem hukum yang meliputi struktur hukum, substansi hukum, dan budaya hukum sehingga pengembangan penggunaan teknologi *Artificial Intelligence* dalam penyelesaian sengketa di Peradilan Agama menjadi efektif dan adil bagi semua orang.

KATA KUNCI *Artificial Intelligence; Maslahah Mursalah; Pengadilan Agama.*

Introduction

Artificial intelligence technology has been used globally in various countries to settle court cases. Research conducted in China[1], Brazil[2], India[3], Canada[4], European Union countries[5], and other countries shows that artificial intelligence has been used to settle cases in court. In 2016, the LIA Platform (Legal Intelligence Assistant) with artificial intelligence technology was claimed to be the first legal chatbot in Indonesia that aimed to help the public get legal educational content (marriage, divorce, and inheritance law).[6] It means that the development of artificial intelligence in the field of law has also been developed in Indonesia since 2016.

As an effort to modernize the judicial process, the Supreme Court of the Republic of Indonesia has also developed E-Litigation regulated in Supreme Court Regulation of the Republic of Indonesia Number 7 of 2022 concerning Amendments to Supreme Court Regulation Number 1 of 2019

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[1] Weidong Ji, "The Change of Judicial Power in China in the Era of Artificial Intelligence," *Asian Journal of Law and Society* 7, no. 3 (2020): 515–30, https://doi.org/10.1017/als.2020.37. Haneffa Muchlis Gazali et al., "Application of Artificial Intelligence (AI) in Islamic Investments," *Journal of Islamic Finance* 9, no. 2 (2020): 70–78.

[2] Weslei Gomes de Sousa et al., "Artificial Intelligence and Speedy Trial in the Judiciary: Myth, Reality or Need? A Case Study in the Brazilian Supreme Court (STF)," *Government Information Quarterly* 39, no. 1 (2022): 101660, https://doi.org/https://doi.org/10.1016/j.giq.2021.101660.

[3] Parth Jain, "Artificial Intelligence for Sustainable and Effective Justice Delivery in India," *OIDA International Journal Of Sustainable Development* 11, no. 06 (2018): 63–70.

[4] Henry Prakken, "On the Problem of Making Autonomous Vehicles Conform to Traffic Law," *Artificial Intelligence and Law* 25, no. 3 (2017): 341–63, https://doi.org/10.1007/s10506-017-9210-0. Florian Martin-bariteau and Industrial Revolution, "Artificial Intelligence and the Law in Canada," *Artificial Intelligence and the Law*, 2021, 1–13, https://doi.org/10.4324/9780429344015. Benjamin Alarie, Anthony Niblett, and Albert H. Yoon, "How Artificial Intelligence Will Affect the Practice of Law," *University of Toronto Law Journal* 68, no. 1 (2018): 106–24, https://doi.org/10.3138/utlj.2017-0052.

[5] Olena Yara et al., "Legal Regulation of the Use of Artificial Intelligence: Problems and Development Prospects," *European Journal of Sustainable Development* 10, no. 1 (2021): 281–89, https://doi.org/10.14207/ejsd.2021.v10n1p281.

[6] Aida Mardhatillah, "LIA, Chatbot Hukum Pertama Indonesia Resmi Diluncurkan," Hukumonline.com, 2018, https://www.hukumonline.com/berita/a/lia--chatbot-hukum-pertama-indonesia-resmi-diluncurkan-lt5b6a4dcab1765/.

concerning Electronic Administration of Cases and Trials in Courts. This policy has been implemented by 32 courts, namely the general and religious courts and the state administration[7]. The Supreme Court is also planning to develop a system for appointing a panel of judges using artificial intelligence based on the type and qualifications of the case, as well as the workload of the Supreme Justices, to help improve case handling performance.[8]

The Religious Court, as one of the judiciaries in Indonesia under the Supreme Court of the Republic of Indonesia, has significant potential to develop artificial intelligence in Islamic law case resolution. An increase in cases at the Religious Courts every year, with a caseload of 656.178 cases in 2020, 673.235 cases in 2021, and 674.684 cases in 2022, coupled with the slow dispute resolution process, causes a buildup of cases in the Religious Courts.[9] This fact has the potential to cause injustice to both parties. However, the implementation of artificial intelligence use in dispute resolution in religious courts still requires further development related to regulations as a basis for regulating the use of artificial intelligence, increasing human resources, and supporting adequate infrastructure.

This study discusses two main patterns, namely, *first,* the potential for developing artificial intelligence technology in the dispute resolution of Islamic law in the Religious Courts, and *second*, the formulation of the concept of development of the use of artificial intelligence technology in dispute resolution in the Religious Courts based on the *Maslahah Mursalah* principle.

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[7] Dedi Putra, "A Modern Judicial System in Indonesia: Legal Breakthrough of E-Court and E-Legal Proceeding," *Jurnal Hukum Dan Peradilan* 9, no. 2 (2020): 275, https://doi.org/10.25216/jhp.9.2.2020.275-297.

[8] Ferinda K Fachri, "Kembangkan Aplikasi Penunjukan Majelis, MA Gunakan Artificial Intelligence," Hukumonline.com, 2023, https://www.hukumonline.com/berita/a/kembangkan-aplikasi-penunjukan-majelis--ma-gunakan-artificial-intelligence-lt63f4542d35bf3/.

[9] Asep Nur Sobah, "Laporan Tahunan Gugatan Perdata Pada Pengadilan Agama," Mahkamah Agung, 2022, https://kepaniteraan.mahkamahagung.go.id/Publikasi/Laporan-Tahunan/.

Method

The research method used is juridical-normative, with a philosophical and conceptual approach. The theories used are progressive legal theory, legal objectives, legal system, and *Maslahah Mursalah*. The collecting legal materials technique used document studies with prescriptive analysis techniques based on logic and deductive legal reasoning. Logic and deductive legal reasoning are done by inferring a problem in general from the problem encountered in particular, which becomes a legal reference and consideration for analyzing problems from generally accepted concepts or theories to describe legal facts or compare with problems or theories.

Discussion

Potential Development of Artificial Intelligence for Dispute Resolution in Religious Courts

Artificial intelligence technology in the legal system has been implemented in several countries, including by artificial intelligence judges and lawyers. In 2016, the UK Ministry of Justice launched a digital technology Court of Honor (HMCTS) with the ReadyTech technology platform to improve access to justice in the legal system. The use of artificial intelligence technology can update the standard of services provided to legal professionals applied in tribunal courts throughout England and Wales. The application of artificial intelligence technology in HMCTS has shown that technology can be crucial in reducing systemic waiting times and inefficiencies.[10] In the UK, they are also developing

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[10] Javairia Shafique, "Use of ICTs and Artificial Intelligence to Overcome Judicial Trial Delays in Pakistani Courts," *Pakistan Languages and Humanities Review* 6, no. II (2022): 1153–63, https://doi.org/10.47205/plhr.2022(6-ii)97.

artificial intelligence as a tool to provide legal assistance with DoNotPay chat, which has provided as many as 1,000 legal aid services.[11]

In 2017, China implemented Artificial Intelligence judge technology that could help digitally handle legal disputes. Artificial intelligence judges carry out their duties like judges with the judge profession's duties based on the officially available database. The judges can conduct legal reasoning and decide cases in various legal cases, including copyright disputes, e-commerce product liability claims disputes, and online buying and selling disputes.[12] In America, an artificial intelligence lawyer can beat 20 human lawyers trained in America in identifying five agreements.[13] In Mexico, they have started to use artificial intelligence technology to make simple administrative decisions.[14]

The use of Artificial Intelligence in court dispute resolution, as in the countries mentioned above, shows that artificial intelligence has significant potential to increase the efficiency, accuracy, and speed of court dispute resolution. Therefore, it can be used as a reference and inspire Indonesia to apply artificial intelligence in dispute resolution in courts, including the Religious Courts as one of the judicial bodies in Indonesia.

The Religious Court is a court that settles cases for Muslim people in cases of Islamic law, which includes marriage, inheritance, will, grant, waqf, zakat, infaq, sadaqah, and Islamic economics.[15] The religious courts have the potential to develop the use of artificial intelligence in dispute resolution with the following arguments:

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[11] Qur'ani Dewi Kusumawardani, "Hukum Progresif Dan Perkembangan Teknologi Kecerdasan Buatan," *Veritas et Justitia* 5, no. 1 (2019): 166–90, https://doi.org/10.25123/vej.3270.

[12] Febri Jaya and Wilton Goh, ""Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia"," *Supremasi Hukum* 17, no. 2 (2021): 1–11.

[13] Jaya and Goh.

[14] Kusumawardani, "Hukum Progresif Dan Perkembangan Teknologi Kecerdasan Buatan."

[15] Pasal 2 "Undang-Undang (UU) No. 50 Tahun 2009 Perubahan Kedua Atas Undang-Undang Nomor 7 Tahun 1989 Tentang Peradilan Agama" (2009). Pasal 49 "Undang-Undang Nomor 3 Tahun 2006 Tentang Perubahan Undang-Undang Nomor 7 Tahun 1989 Tentang Peradilan Agama," 2006.

1. *Philosophical Argument*

A simple, fast, and low-cost trial is one of the principles of the Indonesian legal system. Therefore, it must be the basis for dispute resolution in all courts in Indonesia, including in the religious courts, as mandated by Article 2 Paragraph 4 of the Law of the Republic of Indonesia Number 48 of 2009 concerning Judicial Power. The principle of simple, fast, and low-cost justice is the basis for the importance of developing artificial intelligence in dispute resolution in religious courts because artificial intelligence technology can be used in dispute resolution in the courts. With the right approach, AI development can be used as an effective tool to increase accessibility, speed, and efficiency in dispute resolution in religious courts.

Philosophically, legal principles are the basis for running the legal system.[16] According to Scholten, principles have an ethical dimension in law application in society.[17] Legal principles must contain ethical aspects to ensure that the legal system operates fairly, with dignity, and by the moral values recognized by society.[18] The application of ethics in law helps ensure that the legal decisions taken respect human rights, justice, and humanity.[19] The development of artificial intelligence technology in dispute resolution in religious courts must be based on strong legal and ethical principles so that this technology can function with integrity and justice. By applying this legal ethical principle in the development of artificial intelligence technology, the Religious Courts can ensure that this

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[16] John Merryman and Rogelio Pérez-Perdomo, *The Civil Law Tradition: An Introduction to the Legal Systems of Europe and Latin America* (Stanford University Press, 2018).

[17] Nuno Coelho, "Kelsen and Scholten on Reason and Emotion in Solving Cases," *Aristotelian Protestantism in Legal Philosophy: Rethinking Paul Scholten for the 21st Century* 1 (2022): 315.

[18] I. V. Irkhin, "Discussion on the Nature of the Principles of Law (Legal Principles) in the Context of Convergence of Legal Systems," *Lex Russica* 4, no. 4 (2020): 117–29, https://doi.org/10.17803/1729-5920.2020.161.4.117-129.

[19] Giampiero Lupo, *The Ethics of Artificial Intelligence: An Analysis of Ethical Frameworks Disciplining AI in Justice and Other Contexts of Application*, *Onati Socio-Legal Series*, vol. 12, 2022, https://doi.org/10.35295/OSLS.IISL/0000-0000-0000-1273.

technology is used with integrity, fairness, and ethical values by law enforcement objectives in the Islamic law context.

2. *Juridical Argument*

Juridically, artificial intelligence technology does not have regulation in Indonesia. But in general, artificial intelligence technology is related to artificial intelligence with technology that has been regulated in the 1945 Constitution, Article 28 C, which reads:[20]

> "Everyone has the right to development through meeting their basic needs, the right to education, and the right to benefit from science and technology, arts, and culture to improve the quality of life and for the welfare of mankind".

In Law Number 19 of 2016 concerning Informatics and Electronic Transactions. The use of artificial intelligence technology has also received recognition in Law Number 11 of 2019 concerning the National System of Science and Technology, which states that:[21]

> "To ensure that everyone has the right to benefit from science and technology, the government is advancing science and technology. The advancement of science and technology is carried out by upholding religious values and national unity for the advancement of civilization, as well as the welfare of mankind"

These provisions prove that the state guarantees the development of science and technology.

Specifically, the development of technology use in court has been regulated in the Republic of Indonesia Supreme Court Regulation Number 7 of 2022 concerning Amendments to Supreme Court Regulation Number 1 of 2019 concerning Electronic Administration of Cases and Trials in Courts. The purpose of using electronic-based justice administration, also known as e-court, is to provide excellent service to justice seekers.[22] The Supreme Court is also planning to develop a system for appointing a panel

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[20] Pasal 28 C "Undang-Undang Dasar (UUD) 1945" (1945).
[21] "Undang-Undang (UU) Nomor 11 Tahun 2019 Tentang Sistem Nasional Ilmu Pengetahuan Dan Teknologi" (2019)."Law Number 11 of 2019 Concerning the National System of Science and Technology" (2019).
[22] Putra, "A Modern Judicial System in Indonesia: Legal Breakthrough of E-Court and E-Legal Proceeding."

of judges using artificial intelligence based on the type and qualifications of cases as well as the workload of the Supreme Justices. The use of Artificial Intelligence technology will continue to be developed by the Supreme Court, including at courts of first instance and appellate level, to help improve case handling performance.[23] It means existing regulations support the development of technology use, such as the use of artificial intelligence in dispute resolution in courts, including the religious courts as one of the judicial bodies under the Supreme Court.

3. *Sociological* Argumentation

Sociologically, the high number of cases entered in the Religious Courts (**Table 1**) is increasing every year, which is one of the reasons that the Religious Courts must develop the use of artificial intelligence technology.

Table 1 Data on Dispute Resolution of Islamic Civil at Religious Courts in 2020-2022

Cases	2020	2021	2022
Civil Lawsuit	520,362	529,863	530,849
Civil Application	135,537	143,059	143,568
Simple Lawsuit	279	313	267
Amount	**656,178**	**673,235**	**674,684**

Source: Supreme Court Annual Report 2020-2022

The Table 1 above shows that the burden of the number of cases in the Religious Courts is very high. This condition can be caused by various factors, such as an increase in population, the complexity of cases, and social changes that affect the level of disputes in society. The high caseloads can make it difficult to cope with the surge in cases handled by the courts.[25] In addition to the high number of cases, the table indicates

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[23] Fachri, "Kembangkan Aplikasi Penunjukan Majelis, MA Gunakan Artificial Intelligence."

[25] Imam Rahmaddani, "TINJAUAN YURIDIS TERHADAP FAKTOR DAN DAMPAK PERCERAIAN DI PENGADILAN (ANALISIS KASUS DI PENGADILAN

that the dispute resolution process at the religious courts is relatively slow. Several factors can cause this condition, such as limited human resources and an inefficient administrative system.[26] The slow dispute resolution process can lead to a backlog of cases in court and prolong settlement time, which in turn hinders the efficiency and effectiveness of case handling. The slow dispute resolution process can hurt justice seekers. The parties involved in the dispute will have to wait longer for a decision to be made.

High caseloads and slow resolution processes can hinder the efficiency and effectiveness of the justice system.[27] The religious courts must be able to handle cases quickly and accurately so that the legal process runs efficiently and fulfills justice. In the current conditions, the need for efficiency and effectiveness in dispute resolution is becoming increasingly urgent. The religious courts need to reform in terms of case management.[28] Improvement of infrastructure and technology, the addition of human resources, and the simplification of administrative procedures are some steps that can be taken to increase efficiency and reduce the accumulation of cases.[29] The use of artificial intelligence can also be a solution to help the process of dispute resolution more quickly and accurately. Besides that, it is hoped that the dispute resolution process can be more efficient and provide justice for all.

4. Technical Argument

AGAMA SUBANG),” *Jurnal Supremasi Hukum* 19, no. 27 (2023): 72–79, https://doi.org/https://doi.org/10.33592/jsh.v19i1.3349.

[26] Munirja Paputungan, Ni Made Ary Wisiastini, and Ni Luh Wayan Sayang Telagawati, “Analisis Manajemen Pelayanan Terpadu Satu Pintu (Ptsp) Dalam Meningkatkan Kualitas Pelayanan,” *Publik: Jurnal Manajemen Sumber Daya Manusia, Administrasi Dan Pelayanan Publik* 10, no. 2 (2023): 446–56, https://doi.org/10.37606/publik.v10i2.676.

[27] Malik Ibrahim, “Tunggakan Perkara Di Lingkungan Peradilan Agama Dan Upaya Penanggulangannya,” *Aplikasia: Jurnal Aplikasi Ilmu-Ilmu Agama* 18, no. 1 (2018): 33–50, https://doi.org/10.14421/aplikasia.v18i1.1833.

[28] Alex Ingrams, “Bureaucratic Reform,” *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 2018, 1–6, https://doi.org/10.1007/978-3-319-31816-5_626-1.A

[29] Ibrahim, “Tunggakan Perkara Di Lingkungan Peradilan Agama Dan Upaya Penanggulangannya.”

The use of e-courts in religious courts is one of the potential developments for artificial intelligence technology. Technically, it means the religious courts, including the human resources within them, are familiar with and have the technical ability to use technology in the court administration process.[30] Human resources at the religious courts have also received training in using e-court-based technology.[31] The use of e-court technology has become a step forward for the courts in increasing the efficiency and accessibility of the justice system.[32] With the habits and skills of using e-court technology, human resources in religious courts will be more prepared and open to adopting artificial intelligence technology in dispute resolution.

The use of artificial intelligence can provide additional benefits in increasing the accuracy of legal analysis, supporting proper decision-making, and speeding up the dispute resolution process. However, developing and integrating training related to artificial intelligence is essential. With more comprehensive and continuous training, human resources in the religious courts will be more skilled and ready to face technological developments in the justice system. The successful application of artificial intelligence technology in dispute resolution will also depend heavily on the support and commitment of law enforcers.[33]

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[30] M. Beni Kurniawan, "Implementation of Electronic Trial (E-Litigation) on the Civil Cases in Indonesia Court As a Legal Renewal of Civil Procedural Law," *Jurnal Hukum Dan Peradilan* 9, no. 1 (2020): 43, https://doi.org/10.25216/jhp.9.1.2020.43-70.

[31] Pengadilan Agama Bandung, "Pelatihan Teknis E-Court Untuk Pegawai Pengadilan Agama Bandung Ke-II," https://pa-bandung.go.id/, 2019, https://pa-bandung.go.id/Seputar-Peradilan/301-Pelatihan-Teknis-E-Court-Untuk-Pegawai-Pengadilan-Agama-Bandung.

[32] Hugo C. Hoeschl and Vânia Barcellos, "Artificial Intelligence and Law," *IFIP Advances in Information and Communication Technology* 154, no. 4 (2004): 25–34, https://doi.org/10.1007/978-981-16-1665-5_3.Gazali et al., "Application of Artificial Intelligence (AI) in Islamic Investments."Abdul Rachmat Ariwijaya and Palupi Lindiasari Samputra, "Evaluasi Kebijakan Peradilan Elektronik (E-Court) Mahkamah Agung Republik Indonesia," *Jurnal Hukum & Pembangunan* 51, no. 4 (2021): 14, https://doi.org/10.21143/jhp.vol51.no4.3303.

[33] Katja Wiek, "The Artificial Intelligence Act - The Impact of AI on Human Rights Standards in European Law Enforcement" (university of Twente, 2023), http://essay.utwente.nl/96320/.

It can be concluded that the development of artificial intelligence technology has significant potential for dispute resolution in religious courts. The use of artificial intelligence in the religious courts context has a philosophical basis in line with the principles of Indonesian law, such as simple, fast, and low-cost trials. Juridically, artificial intelligence technology is related to informatics law and electronic transactions, and existing regulations support the use of technology in court. From a technical perspective, the infrastructure and technical capabilities that already exist in e-courts provide a foundation for the use of artificial intelligence technology to improve legal analysis, decision-making, and dispute resolution efficiency. The high caseload and the slow dispute resolution process of in the religious courts provide solid reasons for utilizing artificial intelligence technology to overcome the challenges of the cases accumulation in the courts. However, the use of artificial intelligence technology must be carried out by considering strong legal and ethical principles to ensure fairness, human rights, and integrity. Existing regulations and development plans for the Supreme Court in adopting artificial intelligence technology are also the basis for applying artificial intelligence technology in dispute resolution in the religious courts.

Artificial Intelligence Development in Religious Courts Based on the *Maslahah Mursalah* Principle

Laws are made to regulate social life, create justice, and maintain order by humans. In law enforcement, new thoughts are needed, one of which is progressive law implementation. The law always evolves with the times.[34] Artificial intelligence is a technology used to facilitate human work. The development of artificial intelligence has influenced justice

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[34] Kusumawardani, "Hukum Progresif Dan Perkembangan Teknologi Kecerdasan Buatan," 175.

systems around the world.[35] The development of the use of artificial intelligence in religious courts is crucial to be formulated to assist in dispute resolution.[36]

Developing the use of artificial intelligence in dispute resolution at religious courts can help to overcome spikes in cases, speed up resolution, and increase the accessibility of justice. The use of artificial intelligence in resolving Islamic law cases must be in line with Islamic law principles. Therefore, it can benefit justice for all. According to Asy-Syahtibi, the *Maslahah Mursalah* concept emphasizes the general welfare and community interests.[37] This concept emphasizes the importance of achieving good and avoiding harm in the context of Islamic law.[38] The use of artificial intelligence in dispute resolution in religious courts that is in line with the *Maslahah Mursalah* principles can provide public benefits, increase the efficiency, accuracy, and accessibility of the justice system, and ensure fairness and ethical values in the dispute resolution process of Islamic law.[39] In this case, the use of artificial intelligence technology can increase access to justice for Muslim communities litigating in religious courts.[40] The development of artificial intelligence for dispute resolution in religious courts needs to pay attention to three main aspects of Friedman's legal system theory: legal structure, legal substance, and legal culture.[41]

1. Legal Structure

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[35] Richard M Re et al., "Developing Artificially Intelligent Justice," *Stanford Technology Law Review 242* 22 (2019): 243–88.

[36] Malik Ibrahim, "Reformasi Birokrasi Pada Lingkungan Peradilan Agama Di Indonesia," *Al-Ahwal: Jurnal Hukum Keluarga Islam* 11, no. 2 (2018): 133–46.

[37] Encum Sumirah and Pitrotussaadah Pitrotussaadah, "Perkembangan Filsafat Syariah," *Jurnal Perspektif* 5, no. 2 (2021): 204, https://doi.org/10.15575/jp.v5i2.136.

[38] Ramlah Umar, Al-Muthahhiri, M. Hasbi, "MASLAHAH 'AMMAH: (A Comparative Study of The Concept Maslahah 'Ammah According To Nahdlatul Ulama And Ulama Mazdhahib Al-Arba'ah)" 5, no. 1 (2023): 65–88.

[39] Zia Alkausar Mukhlis Yahdi Dinul Haq, Hafizah Muchtia, "Bid'ah in Concept of Maslahah Mursalah and Istihsan According to Imam Asy-Syathibi," *Ilmiah Syari'ah* 20, no. 2 (2021): 225–37.

[40] Rifai Sulaiman Lebbe, "The Concept of Public Interest in Islamic Law (Maslaha) and Its Modern Implications," *SSRN Electronic Journal*, 2021, 1–14, https://doi.org/10.2139/ssrn.3788222.

[41] Lawrence M Friedman, *Legal Culture and the Legal Profession* (Routledge, 2021).

The legal structure involves the formation of policies, regulations, and legal frameworks that facilitate the use of artificial intelligence according to the principles and objectives of Islamic law. The Supreme Court has developed a system for appointing a panel of judges using artificial intelligence based on the type and qualifications of cases as well as the workload of the Supreme Justices. The use of artificial intelligence technology will continue to be developed by the Supreme Court, including at courts of first instance and appellate level, to help improve case handling performance. However, it is essential to keep in mind that the role of humans remains the main driving force because, even though advanced technology can provide accuracy and thoroughness in assisting tasks and work, humans have the creativity and intelligence to continue to innovate and make changes.[42]

The Supreme Court must consider legalizing or legally recognizing the use of artificial intelligence in the justice system. The use of artificial intelligence in court can provide many benefits, such as increasing efficiency, accuracy, and speed in dispute resolution. However, before legalizing artificial intelligence, the Supreme Court needs to consider various aspects and related legal implications.

The first step that needs to be taken is to formulate clear and firm regulations regarding the use of artificial intelligence in court. This regulation must include procedures and technical provisions governing how artificial intelligence can be used in analysis and legal decision-making. This regulation aims to ensure that the use of artificial intelligence complies with the principles of justice, legal certainty, and human rights.[43] In addition, the Supreme Court needs to ensure that artificial intelligence used in court has a high level of accuracy and reliability. Inaccurate or

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[42] Re et al., "Developing Artificially Intelligent Justice."
[43] Lottie Lane, "Clarifying Human Rights Standards Through Artificial Intelligence Initiatives," *International and Comparative Law Quarterly* 71, no. 4 (2022): 915–44, https://doi.org/10.1017/S0020589322000380.

problematic use of artificial intelligence can cause injustice and undermine the integrity of the justice system.[44]

The Supreme Court must consider the ethical issues related to the use of artificial intelligence in the judiciary,[45] such as how to overcome bias or discrimination that may occur in artificial intelligence algorithms. There needs to be a mechanism to ensure that the use of artificial intelligence does not harm the parties involved in the judicial process. The use of artificial intelligence in dispute resolution of Islamic law must be in line with the principles of Islamic law so it can benefit all parties. With careful consideration and proper regulations, legalizing the use of artificial intelligence in justice can be a step forward for the justice system to be more efficient, fair, and responsive to technological developments. However, keep in mind that the final decision remains the responsibility of a judge who has a comprehensive understanding of applicable laws and policies.

The elements of the legal structure are very much in line with the principles of *Maslahah Mursalah*, such as policy formation, legality, accuracy, ethics, and compliance with the principles of Islamic law, and the role of judges is crucial in designing and implementing the use of artificial intelligence in a more efficient, fair and responsive justice system.[46] The benefit in question is general, not a specific benefit for individuals or particular groups, because the benefit of making excellent regulations will bring benefits to many people and can reject something harmful that happened before. This benefit does not conflict with the benefit contained in the Al-Qur'an and Hadith because it aims to

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[44] Mirko Bagaric, Dan Hunter, and Nigel Stobbs, "Erasing the Bias Against Using Artificial Inteligence To Predict Future Criminality: Algorithms Are Color Blind and Never Tire," *University of Cincinnati Law Review* 88, no. 4 (2019): 1037–81.

[45] Konstantin Chatziathanasiou, "Beware the Lure of Narratives: Hungry Judges Should Not Motivate the Use of Artificial Intelligence in Law," *German Law Journal* 23, no. 4 (2022): 452–64, https://doi.org/10.1017/glj.2022.32.

[46] James Shaw et al., "Artificial Intelligence and the Implementation Challenge," *Journal of Medical Internet Research* 21, no. 7 (2019), https://doi.org/10.2196/13659.

encourage prosperity and justice for society in general.[47] As described in QS An-Nisa: 135, QS Al-Maidah: 8, An-Nahl: 90, QS Al-Maidah: 8, QS Al-An'am: 152, QS An-Nisa: 29, QS An- Nisa: 135, and QS Sad: 29, where all of these verses emphasize the importance of good, fair and balanced policies in Islam. Justice, equality, and truth must be the basis for policy formation and decision-making.[48] Therefore, establishing policies, regulations, and legal frameworks facilitates the use of artificial intelligence to build a more advanced and fair judiciary. It reflects public problems, ethical values, and the principles of Islamic law commonly referred to as *Maslahah Mursalah*.

2. *Legal Substance*

Legal substance related to legal content or material is applied to the developing artificial intelligence concept. Juridically, artificial intelligence technology is not yet explicitly regulated in Indonesia. Artificial intelligence related to technology has been regulated in the 1945 Constitution, Article 28 C, which reads:[49]

> "Everyone has the right to development through meeting their basic needs, the right to education, and the right to benefit from science and technology, the arts, and culture in order to improve the quality of life and for the welfare of mankind."

In Law Number 19 of 2016 concerning Informatics and Electronic transactions, the use of artificial intelligence technology has also received recognition in Law Number 11 of 2019 concerning the National System of Science and Technology, which states that:[50]

> "....To ensure that everyone has the right to benefit from science and technology, the government is advancing science and technology. The advancement of science and technology is carried out by upholding

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[47] Amin Farih and M Mukhsin Jamil, *Kemaslahatan & Pembaharuan Hukum Islam* (Walisongo Press, 2008).

[48] Dewi Haryanti, "Application the Concept of Justice Based on Al-Qur'an Interpretation in the Construction of Indonesia'S Legal System," *International Journal of Law Reconstruction* 4, no. 2 (2020): 98, https://doi.org/10.26532/ijlr.v4i2.4902.

[49] Pasal 28 C Undang-Undang Dasar (UUD) 1945.

[50] Undang-Undang (UU) Nomor 11 Tahun 2019 tentang Sistem Nasional Ilmu Pengetahuan dan Teknologi.

religious values and national unity for the advancement of civilization, as well as the welfare of mankind…"

These provisions prove that the state guarantees the development of science and technology. Specifically, the development of technology use in court has been regulated in the Republic of Indonesia Supreme Court Regulation Number 7 of 2022 concerning Amendments to Supreme Court Regulation Number 1 of 2019 concerning Electronic Administration of Cases and Trials in Courts.[51]

In the context of developing the use of artificial intelligence in dispute resolution in court, the regulatory framework provides a legal basis that supports courts in adopting artificial intelligence technology in an effort to improve the efficiency, accessibility, and accuracy of dispute resolution.[52] Although no regulations specifically regulate artificial intelligence, existing regulations can become the basis for future policy development (*ius constituendum*) and guidelines for the use of artificial intelligence technology in the justice system in Indonesia. Thus, the application of artificial intelligence in dispute resolution in courts, including in religious courts, can be developed in accordance with applicable legal and ethical principles.

The formulation of the concept of using artificial intelligence technology was developed with the ability to accurately find the best solution to solve problems quickly and accurately with the ability to:[53]

1. Inventory of documents and legal sources of laws and regulations related to cases. This application has been implemented in courts

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[51] "Peraturan Mahkamah Agung Nomor 7 Tahun 2022 Perubahan Atas Peraturan Mahkamah Agung Nomor 1 Tahun 2019 Tentang Administrasi Perkara Dan Persidangan Di Pengadilan Secara Elektronik" (2022).

[52] Hibah Alessa, "The Role of Artificial Intelligence in Online Dispute Resolution: A Brief and Critical Overview," *Information and Communications Technology Law* 31, no. 3 (2022): 319–42, https://doi.org/10.1080/13600834.2022.2088060.

[53] Mahyuddin Daud, "Artificial Intelligence in the Malaysian Legal System: Issues,Challenges and Way Forward," *Insaf* 39, no. 1 (2022): 1–24.Endang Purwaningsih and Irfan Islami, "Analisis Artificial Intelligence (AI) Sebagai Investor Berdasarkan Hukum Paten Dan Hukum Islam" 11, no. 13 (2023): 1–15.

in the United States called the "e-Discovery" system.[54] This system has the ability to collect information and legal sources related to cases.

2. Providing legal considerations to judges in analyzing, weighing, and deciding a case, as has been implemented in the "COMPAS" system in criminal courts in the United States.[55]

3. Become a court assistant who can receive orders verbally, as has been implemented by the criminal court in Shanghai with a system known as the "206 System."[56] The system can display relevant data information as well as analyze dispute resolution. It can be tasked with making trial minutes and identifying speakers, ensuring a trial fact, identifying evidence, and providing legal advice.

The formulation of the development concept of the use of artificial intelligence technology in the Religious Courts needs to apply a mechanism for testing and examining artificial intelligence algorithms to identify potential biases that may occur in decision-making.[57] Furthermore, it is essential to implement transparency and clarification of artificial intelligence decisions. Artificial intelligence providers use the development of natural language processing techniques and machine

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[54] Bokolo, Biodoumoye George, And Nurettin Selcuk Senol. "The Digital Forensic Approach To Ediscovery." *Breakthroughs In Digital Biometrics And Forensics* . Cham: Springer International Publishing, 2022. 129-146. Ran Wang, "Legal Technology in Contemporary USA and China," *Computer Law and Security Review* 39 (2020), https://doi.org/10.1016/j.clsr.2020.105459.

[55] Malek, Md Abdul. "Criminal Courts' Artificial Intelligence: The Way It Reinforces Bias And Discrimination." *AI And Ethics* 2, no. 1 (2022): 233-245. Rena Schwarting and Lena Ulbricht, "Why Organization Matters in 'Algorithmic Discrimination,'" *Kolner Zeitschrift Fur Soziologie Und Sozialpsychologie* 74 (2022): 307–30, https://doi.org/10.1007/s11577-022-00838-3.

[56] Wang, Nyu, And Michael Yuan Tian. "'Intelligent Justice': AI Implementations In China's Legal Systems." *Artificial Intelligence And Its Discontents: Critiques From The Social Sciences And Humanities* . Cham: Springer International Publishing, 2022. 197-222. Wang, "Legal Technology in Contemporary USA and China."Nyu Wang and Michael Yuan Tian, "'Intelligent Justice': Human-Centered Considerations in China's Legal AI Transformation," *AI and Ethics* 3, no. 2 (2023): 349–54, https://doi.org/10.1007/s43681-022-00202-3.

[57] Waymond Rodgers et al., "An Artificial Intelligence Algorithmic Approach to Ethical Decision-Making in Human Resource Management Processes," *Human Resource Management Review* 33, no. 1 (2023): 100925, https://doi.org/10.1016/j.hrmr.2022.100925.

learning regarding legal databases of Islamic law and law related to cases, causing artificial intelligence to be able to help identify and analyze laws, court decisions, and other legal literature.[58] It will help legal practitioners understand and apply the law better and ensure fairness in decision-making. The development carried out includes the development of algorithms, models, and methods of artificial intelligence that can consider the principles of ethics, fairness, benefit, and legal certainty.[59] It aims to ensure that decisions made by artificial intelligence still pay attention to the principles of justice and do not violate the principles of Islamic law. However, artificial intelligence is only a supporting unit that assists judges in analyzing cases, while the highest decision is still held by judges as law enforcers.

The use of artificial intelligence technology has the potential to provide significant benefits by increasing effectiveness and efficiency in dispute resolution, reducing time and costs, and potentially providing great justice for the parties, so it is very much in line with the principle of *Maslahah Mursalah*. The principle of *Maslahah Mursalah* can be used as a legal basis and can be applied in daily activities if it meets the requirements and is added to the *Maslahah,* which is a real benefit, not limited to benefits that are still prejudiced in nature. If it can attract benefits and reject harm, *Maslahah* has advantages in general by having comprehensive access and not deviating from the objectives embodied in the Qur'an and Hadith.[61] The majority of scholars agree that *Maslahah* can be accepted if it is not motivated by lust and does not conflict with texts or

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[58] Gulyamov Said, "Adapting Legal Systems to the Development of Artificial Intelligence: Solving the Global Problem of AI in Judicial Processes," *International Journal of Cyber Law* 1, no. 4 (2023): 1–15.

[59] Lupo, *The Ethics of Artificial Intelligence: An Analysis of Ethical Frameworks Disciplining AI in Justice and Other Contexts of Application.*Ivy Munoko, Helen L. Brown-Liburd, and Miklos Vasarhelyi, "The Ethical Implications of Using Artificial Intelligence in Auditing," *Journal of Business Ethics* 167, no. 2 (2020): 209–34, https://doi.org/10.1007/s10551-019-04407-1.

[61] Idhami Dahlan, "Karakteristik Hukum Islam," *Surabaya, Al-Ikhlas*, 1994, 45.

Maqashid Shariah.[62] In other words, the application of artificial intelligence technology in court that potentially increases the efficiency of dispute resolution, reduces costs and time, and provides justice to all parties involved can be considered as an implementation of the principle of *Maslahah Mursalah.*

3. Legal Culture

The legal culture involves human resources in the Religious Courts who are familiar with technology, namely by implementing E-Court in the Judiciary realm regulated in Supreme Court Regulation of the Republic of Indonesia Number 7 of 2022 concerning Amendments to Supreme Court Regulation Number 1 of 2019 concerning Electronic Case and Trial Administration in Courts.[63] Human resources in the religious courts are accustomed to using technology. They have gone through the adaptation and training stages related to the use of this technology, so they have the understanding and skills to operate and utilize technology in the judicial process.[64] With a legal culture that is familiar with technology, the use of artificial intelligence technology in assisting legal dispute resolution can be integrated more smoothly and efficiently in court. However, it must be supported by improving the quality of human resources and adequate infrastructure in its utilization.

In the *Maslahah Mursalah perspective*, the integration of artificial intelligence technology in the judicial process of the religious courts can be analyzed as a step that has clear benefits and is in accordance with Islamic law principles. *Maslahah Mursalah*, which prioritizes the public good, can be identified in an effort to increase the efficiency of legal dispute

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[62] Yahdi Dinul Haq, Hafizah Muchtia, "Bid'ah in Concept of Maslahah Mursalah and Istihsan According to Imam Asy-Syathibi."

[63] Kurniawan, "Implementation of Electronic Trial (E-Litigation) on the Civil Cases in Indonesia Court As a Legal Renewal of Civil Procedural Law." Ariwijaya and Samputra, "Evaluasi Kebijakan Peradilan Elektronik (E-Court) Mahkamah Agung Republik Indonesia." Dewa Gede Sudika Mangku, Ni Putu Rai Yuliartini, and I Suandita, "Implementation of E-Court in Settlement of Civil Cases in Singaraja District Court," in *AIP Conference Proceedings*, vol. 2573 (AIP Publishing, 2022).

[64] Peraturan Mahkamah Agung Nomor 7 Tahun 2022 Perubahan atas Peraturan Mahkamah Agung Nomor 1 Tahun 2019 tentang Administrasi Perkara dan Persidangan di Pengadilan secara Elektronik.

resolution through the use of artificial intelligence technology. With human resources who are familiar with technology and have sufficient operational skills, the integration of artificial intelligence can be an effective means of achieving the goal of justice.[65] In developing a legal culture that applies artificial intelligence technology, it is also necessary to emphasize that the *Maslahah Mursalah* concept requires conformity with Shariah values. The sustainability and success of the implementation of artificial intelligence technology will depend on the extent to which its application complies with the Islamic law principles, which include justice, ethics, and social justice.[66] Therefore, the development of artificial intelligence technology must be supported by an in-depth understanding of the applicable Islamic law principles.

In this case, the use of artificial intelligence technology as a tool in dispute resolution can be analyzed as a form of contemporary ijtihad that considers *Maslahah Mursalah*.[67] However, as with any legal innovation, there needs to be adequate care and oversight to ensure that the application of artificial intelligence technology remains in accordance with the values and Islamic law principles. By strengthening a strong legal and ethical foundation, the integration of artificial intelligence technology can be a step towards providing justice services that are more efficient, fair, and in accordance with the basic demands of Islamic law.[68]

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[65] Richard M. Re & Alicia Solow-Niederman, "Developing Artificially Intelligent Justice", Stanford Technology Law Review, 22, no. 2 (2019): 255. Iván Palomares et al., *A Panoramic View and Swot Analysis of Artificial Intelligence for Achieving the Sustainable Development Goals by 2030: Progress and Prospects, Applied Intelligence* 51, (2021): 6497-6527, https://doi.org/10.1007/s10489-021-02264-y.

[66] David Brougham and Jarrod Haar, "Smart Technology, Artificial Intelligence, Robotics, and Algorithms (STARA): Employees' Perceptions of Our Future Workplace," *Journal of Management and Organization* 24, no. 2 (2018): 239–57, https://doi.org/10.1017/jmo.2016.55.

[67] Muhamad Rizky Rizaldy and Habib Ahmed, "Islamic Legal Methodologies and Shariah Screening Standars: Application in The Indonesian Stock Market," *Language Learning Journal* 131, no. 2 (2015): 469–86.

[68] Iván Palomares et al., A Panoramic View and Swot Analysis of Artificial Intelligence for Achieving the Sustainable Development Goals by 2030: Progress and Prospects, Applied Intelligence 51, (2021): 6497-6527, https://doi.org/10.1007/s10489-021-02264-y.

The development of the use of artificial intelligence in dispute resolution in religious courts is also in line with legal objectives.[69] As Gustav Radbruch said, the law has three objectives that must be achieved.[70] The first is legal certainty. Artificial intelligence is developed with the capability of accuracy in finding the best solution by setting up a legal database related to legal sources and information about cases. Thus, it can find the best solution to solve problems quickly and accurately. Second, for legal justice, artificial intelligence can provide legal considerations to judges in analyzing, weighing, and deciding a case so that it can assist judges in deciding cases fairly. Based on the three benefits of the law, according to Bentham, the purpose of the law is to provide substantial benefit and happiness to as many citizens as possible.[71]

The purpose of this law is the same as the *Maslahah Mursalah* principle oriented towards the welfare of the people. The development of the use of artificial intelligence in religious courts based on *Maslahah Mursalah* has significant positive implications for achieving the legal objectives described earlier. The principles of *Maslahah Mursalah*, which emphasize *maslahat* for society, strongly support steps to integrate artificial intelligence technology into the justice system.[72] The goal of creating efficiency in dispute resolution will be realized better through the use of artificial intelligence. With careful analysis of data and information, artificial intelligence can reduce the time it takes to reach a legal decision. This speed is a form of *Maslahah Mursalah*, which encourages fast and

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[69] Yara et al., "Legal Regulation of the Use of Artificial Intelligence: Problems and Development Prospects."

[70] Torben Spaak, "Relativism in the Philosophy of Law," no. 2009 (2019): 1–19.Gustav Radbruch, "Law ' s Image of the Human," *Oxford Journal of Legal Studies* 40, no. 4 (2020): 667–81, https://doi.org/10.1093/ojls/gqaa026.

[71] Philip Schofield, "Jeremy Bentham and the Origins of Legal Positivism," *CrimRxiv*, 2021, https://doi.org/10.21428/cb6ab371.167682f9.

[72] Umar, Al-Muthahhiri, M. Hasbi, "MASLAHAH 'AMMAH: (A Comparative Study of The Concept Maslahah 'Ammah According To Nahdlatul Ulama And Ulama Mazdhahib Al-Arba'ah)." Muhammad Nazir Alias Et.al, "A Review of Maslahah Mursalah and Maqasid Shariah as Methods of Determining Islamic Legal Ruling," *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, no. 3 (2021): 2994–3001, https://doi.org/10.17762/turcomat.v12i3.1331.

effective dispute resolution so that people can immediately feel justice.[73] In addition, the application of artificial intelligence in legal decision-making has a positive impact on legal certainty. Artificial intelligence can present information from multiple sources and legal precedents, enabling judges to make more consistent and predictable decisions.[74] It is in line with the principle of *Maslahah Mursalah* in maintaining social order and legal stability in society.[75] In the aspect of access to justice, the use of artificial intelligence is expanding the reach of the courts and creating opportunities for more equal access for all citizens. It supports the value of *Maslahah Mursalah* in ensuring that justice is accessible to every individual, regardless of geographical location or financial condition. The ability of artificial intelligence to analyze data and provide legal advice can also help create a more inclusive experience for justice seekers, in line with the spirit of *Maslahah Mursalah* to provide substantial benefit to as many citizens as possible.[76]

Thus, the development of the use of artificial intelligence in religious courts based on the principles of *Maslahah Mursalah* is not just a technological step but also a step that supports the essence of justice and *Maslahah* in the justice system. If artificial intelligence technology is used correctly, religious courts can better realize legal objectives and legal certainty that is more efficient, accurate, and inclusive for all people so

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[73] Gulyamov Said, Et Al, "Adapting Legal Systems To The Development Of Artificial Intelligence: Solving The Global Problem Of Ai In Judicial Processes", International Journal of Cyber Law 1, no. 4, (2023): 2. Muhamad Taufik, "Strategic Role of Islamic Religious Education in Strengthening Character Education in the Era of Industrial Revolution 4.0," Jurnal Ilmiah Islam Futura 20, no. 1 (2020): 86, https://doi.org/10.22373/jiif.v20i1.5797.

[74] Zainul Haqqi, Muhammad Najib Asyrof, and Muhammad Roy Purwanto, "The Strategy of The Siak Sri Indrapura Religious Court in Realizing a Modern Jurisdiction with Integrity" 2022 (2022): 167–76, https://doi.org/10.18502/kss.v7i10.11355.

[75] Richard M. Re & Alicia Solow-Niederman, "Developing Artificially Intelligent Justice", Stan. Tech. L. Rev. 242 (2019): 255. Mohit Sharma, "India's Courts and Artificial Intelligence: A Future Outlook" 15, no. 1 (2023): 99–120, https://doi.org/10.18690/lexonomica.15.1.99-120.2023.

[76] Pawan Budhwar et al., "Artificial Intelligence–Challenges and Opportunities for International HRM: A Review and Research Agenda," *International Journal of Human Resource Management* 33, no. 6 (2022): 1065–97, https://doi.org/10.1080/09585192.2022.2035161.

that they can easily access courts, which also grows public confidence in the existence of religious courts.

Conclusion

The high caseload and slow dispute resolution process in the religious courts in Indonesia are the main reasons for developing the use of artificial intelligence technology. However, artificial intelligence cannot replace the profession of the judge because the function of artificial intelligence is only limited to assisting judges in resolving disputes in the religious courts. Therefore, it is necessary to formulate a concept for developing the use of artificial intelligence technology in resolving disputes in religious courts based on the *maslahah murlahah* principles. The development concept includes first, formulating laws and policies regarding the use of artificial intelligence technology based on *Maslahah Mursalah* principles that aim to ensure the use of artificial intelligence follows the ethics and morals of Islamic law; second, the development of an artificial intelligence-based database; third, developing the quality of human resources and supporting infrastructure by needs in the case resolution process at the religious courts. It is hoped that the development of artificial intelligence will be able to help resolve disputes in the religious courts so that they are more effective, efficient, fair, and have legal certainty in accordance with Islamic law.

References

Ahmed, Muhamad Rizky Rizaldy and Habib. "Islamic Legal Methodologies and Shariah Screening Standars: Application in The Indonesian Stock Market." *Language Learning Journal* 131, no. 2 (2015): 469–86.

Alarie, Benjamin, Anthony Niblett, and Albert H. Yoon. "How Artificial Intelligence Will Affect the Practice of Law." *University of Toronto Law Journal* 68, no. 1 (2018): 106–24. https://doi.org/10.3138/utlj.2017-0052.

Alessa, Hibah. "The Role of Artificial Intelligence in Online Dispute Resolution: A Brief and Critical Overview." *Information and Communications Technology Law* 31, no. 3 (2022): 319–42.

https://doi.org/10.1080/13600834.2022.2088060.

Ariwijaya, Abdul Rachmat, and Palupi Lindiasari Samputra. "Evaluasi Kebijakan Peradilan Elektronik (E-Court) Mahkamah Agung Republik Indonesia." *Jurnal Hukum & Pembangunan* 51, no. 4 (2021): 14. https://doi.org/10.21143/jhp.vol51.no4.3303.

Bagaric, Mirko, Dan Hunter, and Nigel Stobbs. "Erasing the Bias Against Using Artificial Inteligence To Predict Future Criminality: Algorithms Are Color Blind and Never Tire." *University of Cincinnati Law Review* 88, no. 4 (2019): 1037–81.

Brougham, David, and Jarrod Haar. "Smart Technology, Artificial Intelligence, Robotics, and Algorithms (STARA): Employees' Perceptions of Our Future Workplace." *Journal of Management and Organization* 24, no. 2 (2018): 239–57. https://doi.org/10.1017/jmo.2016.55.

Budhwar, Pawan, Ashish Malik, M. T.Thedushika De Silva, and Praveena Thevisuthan. "Artificial Intelligence–Challenges and Opportunities for International HRM: A Review and Research Agenda." *International Journal of Human Resource Management* 33, no. 6 (2022): 1065–97. https://doi.org/10.1080/09585192.2022.2035161.

Chatziathanasiou, Konstantin. "Beware the Lure of Narratives: Hungry Judges Should Not Motivate the Use of Artificial Intelligence in Law." *German Law Journal* 23, no. 4 (2022): 452–64. https://doi.org/10.1017/glj.2022.32.

Coelho, Nuno. "Kelsen and Scholten on Reason and Emotion in Solving Cases." *Aristotelian Protestantism in Legal Philosophy: Rethinking Paul Scholten for the 21st Century* 1 (2022): 315.

Dahlan, Idhami. "Karakteristik Hukum Islam." *Surabaya, Al-Ikhlas*, 1994.

Daud, Mahyuddin. "Artificial Intelligence in the Malaysian Legal System: Issues,Challenges and Way Forward." *Insaf* 39, no. 1 (2022): 1–24.

Et.al, Muhammad Nazir Alias. "A Review of Maslahah Mursalah and Maqasid Shariah as Methods of Determining Islamic Legal Ruling." *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, no. 3 (2021): 2994–3001. https://doi.org/10.17762/turcomat.v12i3.1331.

Fachri, Ferinda K. "Kembangkan Aplikasi Penunjukan Majelis, MA Gunakan Artificial Intelligence." Hukumonline.com, 2023. https://www.hukumonline.com/berita/a/kembangkan-aplikasi-penunjukan-majelis--ma-gunakan-artificial-intelligence-lt63f4542d35bf3/.

Farih, Amin, and M Mukhsin Jamil. *Kemaslahatan & Pembaharuan Hukum Islam*. Walisongo Press, 2008.

Friedman, Lawrence M. *Legal Culture and the Legal Profession*. Routledge, 2021.

Gazali, Haneffa Muchlis, Junisa Jumadi, Noor Rasyidah Ramlan, and Nurmaisarah Abd Rahmat. "Application of Artificial Intelligence (AI) in Islamic Investments." *Journal of Islamic Finance* 9, no. 2 (2020): 70–78.

Haqqi, Zainul, Muhammad Najib Asyrof, and Muhammad Roy Purwanto. "The Strategy of The Siak Sri Indrapura Religious Court in Realizing a Modern Jurisdiction with Integrity" 2022 (2022): 167–76. https://doi.org/10.18502/kss.v7i10.11355.

Haryanti, Dewi. "Application the Concept of Justice Based on Al-Qur'an Interpretation in the Construction of Indonesia'S Legal System." *International Journal of Law Reconstruction* 4, no. 2 (2020): 98. https://doi.org/10.26532/ijlr.v4i2.4902.

Hoeschl, Hugo C., and Vânia Barcellos. "Artificial Intelligence and Law." *IFIP Advances in Information and Communication Technology* 154, no. 4 (2004): 25–34. https://doi.org/10.1007/978-981-16-1665-5_3.

Ibrahim, Malik. "Reformasi Birokrasi Pada Lingkungan Peradilan Agama Di Indonesia." *Al-Ahwal: Jurnal Hukum Keluarga Islam* 11, no. 2 (2018): 133–46.

———. "Tunggakan Perkara Di Lingkungan Peradilan Agama Dan Upaya Penanggulangannya." *Aplikasia: Jurnal Aplikasi Ilmu-Ilmu Agama* 18, no. 1 (2018): 33–50. https://doi.org/10.14421/aplikasia.v18i1.1833.

Ingrams, Alex. "Bureaucratic Reform." *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 2018, 1–6. https://doi.org/10.1007/978-3-319-31816-5_626-1.

Irkhin, I. V. "Discussion on the Nature of the Principles of Law (Legal Principles) in the Context of Convergence of Legal Systems." *Lex Russica* 4, no. 4 (2020): 117–29. https://doi.org/10.17803/1729-5920.2020.161.4.117-129.

Jain, Parth. "Artificial Intelligence for Sustainable and Effective Justice Delivery in India." *OIDA International Journal Of Sustainable Development* 11, no. 06 (2018): 63–70.

Jaya, Febri, and Wilton Goh. ""Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia"." *Supremasi Hukum* 17, no. 2 (2021): 1–11.

Ji, Weidong. "The Change of Judicial Power in China in the Era of Artificial Intelligence." *Asian Journal of Law and Society* 7, no. 3 (2020): 515–30. https://doi.org/10.1017/als.2020.37.

Kurniawan, M. Beni. "Implementation of Electronic Trial (E-Litigation) on the Civil Cases in Indonesia Court As a Legal Renewal of Civil Procedural Law." *Jurnal Hukum Dan Peradilan* 9, no. 1 (2020): 43. https://doi.org/10.25216/jhp.9.1.2020.43-70.

Kusumawardani, Qur'ani Dewi. "Hukum Progresif Dan Perkembangan Teknologi Kecerdasan Buatan." *Veritas et Justitia* 5, no. 1 (2019): 166–90. https://doi.org/10.25123/vej.3270.

Lane, Lottie. "Clarifying Human Rights Standards Through Artificial Intelligence Initiatives." *International and Comparative Law Quarterly* 71, no. 4 (2022): 915–44. https://doi.org/10.1017/S0020589322000380.

Law Number 11 of 2019 concerning the National System of Science and

Technology (2019).

Lupo, Giampiero. *The Ethics of Artificial Intelligence: An Analysis of Ethical Frameworks Disciplining AI in Justice and Other Contexts of Application. Onati Socio-Legal Series.* Vol. 12, 2022. https://doi.org/10.35295/OSLS.IISL/0000-0000-0000-1273.

Mangku, Dewa Gede Sudika, Ni Putu Rai Yuliartini, and I Suandita. "Implementation of E-Court in Settlement of Civil Cases in Singaraja District Court." In *AIP Conference Proceedings,* Vol. 2573. AIP Publishing, 2022.

Mardhatillah, Aida. "LIA, Chatbot Hukum Pertama Indonesia Resmi Diluncurkan." Hukumonline.com, 2018. https://www.hukumonline.com/berita/a/lia--chatbot-hukum-pertama-indonesia-resmi-diluncurkan-lt5b6a4dcab1765/.

Martin-bariteau, Florian, and Industrial Revolution. "Artificial Intelligence and the Law in Canada." *Artificial Intelligence and the Law*, 2021, 1–13. https://doi.org/10.4324/9780429344015.

Merryman, John, and Rogelio Pérez-Perdomo. *The Civil Law Tradition: An Introduction to the Legal Systems of Europe and Latin America.* Stanford University Press, 2018.

Munoko, Ivy, Helen L. Brown-Liburd, and Miklos Vasarhelyi. "The Ethical Implications of Using Artificial Intelligence in Auditing." *Journal of Business Ethics* 167, no. 2 (2020): 209–34. https://doi.org/10.1007/s10551-019-04407-1.

Palomares, Iván, Eugenio Martínez-Cámara, Rosana Montes, Pablo García-Moral, Manuel Chiachio, Juan Chiachio, Sergio Alonso, et al. *A Panoramic View and Swot Analysis of Artificial Intelligence for Achieving the Sustainable Development Goals by 2030: Progress and Prospects. Applied Intelligence.* Vol. 51, 2021. https://doi.org/10.1007/s10489-021-02264-y.

Paputungan, Munirja, Ni Made Ary Wisiastini, and Ni Luh Wayan Sayang Telagawati. "Analisis Manajemen Pelayanan Terpadu Satu Pintu (Ptsp) Dalam Meningkatkan Kualitas Pelayanan." *Publik: Jurnal Manajemen Sumber Daya Manusia, Administrasi Dan Pelayanan Publik* 10, no. 2 (2023): 446–56. https://doi.org/10.37606/publik.v10i2.676.

Pengadilan Agama Bandung. "Pelatihan Teknis E-Court Untuk Pegawai Pengadilan Agama Bandung Ke-II." https://pa-bandung.go.id/, 2019. https://pa-bandung.go.id/Seputar-Peradilan/301-Pelatihan-Teknis-E-Court-Untuk-Pegawai-Pengadilan-Agama-Bandung.

Peraturan Mahkamah Agung Nomor 7 Tahun 2022 Perubahan atas Peraturan Mahkamah Agung Nomor 1 Tahun 2019 tentang Administrasi Perkara dan Persidangan di Pengadilan secara Elektronik (2022).

Prakken, Henry. "On the Problem of Making Autonomous Vehicles Conform to Traffic Law." *Artificial Intelligence and Law* 25, no. 3 (2017): 341–63. https://doi.org/10.1007/s10506-017-9210-0.

Purwaningsih, Endang, and Irfan Islami. "Analisis Artificial Intelligence

(AI) Sebagai Investor Berdasarkan Hukum Paten Dan Hukum Islam" 11, no. 13 (2023): 1–15.

Putra, Dedi. "A Modern Judicial System in Indonesia: Legal Breakthrough of E-Court and E-Legal Proceeding." *Jurnal Hukum Dan Peradilan* 9, no. 2 (2020): 275. https://doi.org/10.25216/jhp.9.2.2020.275-297.

Radbruch, Gustav. "Law's Image of the Human." *Oxford Journal of Legal Studies* 40, no. 4 (2020): 667–81. https://doi.org/10.1093/ojls/gqaa026.

Rahmaddani, Imam. "TINJAUAN YURIDIS TERHADAP FAKTOR DAN DAMPAK PERCERAIAN DI PENGADILAN (ANALISIS KASUS DI PENGADILAN AGAMA SUBANG)." *Jurnal Supremasi Hukum* 19, no. 27 (2023): 72–79. https://doi.org/https://doi.org/10.33592/jsh.v19i1.3349.

Re, Richard M, Alicia Solow-Niederman, Dan Bussel, Kiel Brennan-Marquez, Margot Kaminski, Karen Levy, Martha Minow, et al. "Developing Artificially Intelligent Justice." *Stanford Technology Law Review 242* 22 (2019): 243–88.

Rodgers, Waymond, James M. Murray, Abraham Stefanidis, William Y. Degbey, and Shlomo Y. Tarba. "An Artificial Intelligence Algorithmic Approach to Ethical Decision-Making in Human Resource Management Processes." *Human Resource Management Review* 33, no. 1 (2023): 100925. https://doi.org/10.1016/j.hrmr.2022.100925.

Said, Gulyamov. "Adapting Legal Systems to the Development of Artificial Intelligence: Solving the Global Problem of AI in Judicial Processes." *International Journal of Cyber Law* 1, no. 4 (2023): 1–15.

Schofield, Philip. "Jeremy Bentham and the Origins of Legal Positivism." *CrimRxiv*, 2021. https://doi.org/10.21428/cb6ab371.167682f9.

Schwarting, Rena, and Lena Ulbricht. "Why Organization Matters in 'Algorithmic Discrimination.'" *Kolner Zeitschrift Fur Soziologie Und Sozialpsychologie* 74 (2022): 307–30. https://doi.org/10.1007/s11577-022-00838-3.

Shafique, Javairia. "Use of ICTs and Artificial Intelligence to Overcome Judicial Trial Delays in Pakistani Courts." *Pakistan Languages and Humanities Review* 6, no. II (2022): 1153–63. https://doi.org/10.47205/plhr.2022(6-ii)97.

Sharma, Mohit. "India's Courts and Artificial Intelligence: A Future Outlook" 15, no. 1 (2023): 99–120.

Shaw, James, Frank Rudzicz, Trevor Jamieson, and Avi Goldfarb. "Artificial Intelligence and the Implementation Challenge." *Journal of Medical Internet Research* 21, no. 7 (2019). https://doi.org/10.2196/13659.

Sobah, Asep Nur. "Laporan Tahunan Gugatan Perdata Pada Pengadilan Agama." Mahkamah Agung, 2022. https://kepaniteraan.mahkamahagung.go.id/Publikasi/Laporan-Tahunan/.

Sousa, Weslei Gomes de, Rafael Antunes Fidelis, Paulo Henrique de Souza Bermejo, Ana Gersica da Silva Gonçalo, and Bruno de Souza Melo.

"Artificial Intelligence and Speedy Trial in the Judiciary: Myth, Reality or Need? A Case Study in the Brazilian Supreme Court (STF)." *Government Information Quarterly* 39, no. 1 (2022): 101660. https://doi.org/https://doi.org/10.1016/j.giq.2021.101660.

Spaak, Torben. "Relativism in the Philosophy of Law," no. 2009 (2019): 1–19.

Sulaiman Lebbe, Rifai. "The Concept of Public Interest in Islamic Law (Maslaha) and Its Modern Implications." *SSRN Electronic Journal*, 2021, 1–14. https://doi.org/10.2139/ssrn.3788222.

Sumirah, Encum, and Pitrotussaadah Pitrotussaadah. "Perkembangan Filsafat Syariah." *Jurnal Perspektif* 5, no. 2 (2021): 204. https://doi.org/10.15575/jp.v5i2.136.

Taufik, Muhamad. "Strategic Role of Islamic Religious Education in Strengthening Character Education in the Era of Industrial Revolution 4.0." *Jurnal Ilmiah Islam Futura* 20, no. 1 (2020): 86. https://doi.org/10.22373/jiif.v20i1.5797.

Umar, Al-Muthahhiri, M. Hasbi, Ramlah. "MASLAHAH 'AMMAH: (A Comparative Study of The Concept Maslahah 'Ammah According To Nahdlatul Ulama And Ulama Mazdhahib Al-Arba'ah)" 5, no. 1 (2023): 65–88.

Undang-undang (UU) No. 50 Tahun 2009 Perubahan Kedua atas Undang-Undang Nomor 7 Tahun 1989 tentang Peradilan Agama (2009).

Undang-Undang (UU) Nomor 11 Tahun 2019 tentang Sistem Nasional Ilmu Pengetahuan dan Teknologi (2019).

Undang-Undang Dasar (UUD) 1945 (1945).

"Undang-Undang Nomor 3 Tahun 2006 Tentang Perubahan Undang-Undang Nomor 7 Tahun 1989 Tentang Peradilan Agama," 2006.

Wang, Nyu, and Michael Yuan Tian. "'Intelligent Justice': Human-Centered Considerations in China's Legal AI Transformation." *AI and Ethics* 3, no. 2 (2023): 349–54. https://doi.org/10.1007/s43681-022-00202-3.

Wang, Ran. "Legal Technology in Contemporary USA and China." *Computer Law and Security Review* 39 (2020). https://doi.org/10.1016/j.clsr.2020.105459.

Wiek, Katja. "The Artificial Intelligence Act - The Impact of AI on Human Rights Standards in European Law Enforcement." university of Twente, 2023. http://essay.utwente.nl/96320/.

Yahdi Dinul Haq, Hafizah Muchtia, Zia Alkausar Mukhlis. "Bid'ah in Concept of Maslahah Mursalah and Istihsan According to Imam Asy-Syathibi." *Ilmiah Syari'ah* 20, no. 2 (2021): 225–37.

Yara, Olena, Anatoliy Brazheyev, Liudmyla Golovko, and Viktoriia Bashkatova. "Legal Regulation of the Use of Artificial Intelligence: Problems and Development Prospects." *European Journal of Sustainable Development* 10, no. 1 (2021): 281–89. https://doi.org/10.14207/ejsd.2021.v10n1p281.

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