PAREWA SARAQ: Journal of Islamic Law and Fatwa Review

Volume 5 Issue 1 May 2026: 1-17
E-ISSN: 2964-7878
https://ejournal.sulselmui.com/index.php/PS
https://doi.org/10.64016/parewasaraq.v5i1.69

Constructing the Framework for Robotics Waqf Fatwa: Contemporary Islamic Jurisprudential Foundations for Accelerating Autism Therapy

Hamza Abed Al-karim Hammad[1*]
[1]University of Jerash, Jordan. E-mail: hamzah041@yahoo.com

[*]Corresponding Author
Article history: Received: September 22, 2025; Revised: December 16, 2025; Accepted: January 12, 2026; Published: February 04, 2026

Abstract

The rapid integration of artificial intelligence technologies within the global medical landscape has precipitated significant discursive tensions in contemporary Islamic jurisprudence, particularly concerning the ethical boundaries and legal legitimacy of employing anthropomorphic robots for highly complex therapeutic objectives. Although robotic technologies, such as the NAO model, have been empirically proven as crucial in clinical interactions for children with autism, current *muʿāmalah* (Islamic transactional and social law) literature maintains a profound analytical lacuna regarding the validity of waqf (charitable endowment) for movable assets that visually intersect with the prohibition of depicting animate beings, or *taṣwīr* (the representation or depiction of living beings). This research intervenes in the academic debate by reconstructing legal reasoning that systematically synchronizes classical philanthropic doctrines with cutting-edge medical technology innovations through a *Maqāṣid al-Sharīʿah* (the objectives of Islamic law) approach and a comprehensive *uṣūliyyah* (principles of Islamic legal methodology) analysis of contemporary *fatwā* (authoritative legal opinions) consensuses. The primary findings affirm that the procurement and waqf (charitable endowment) of such anthropomorphic robots are Sharīʿah-compliant (in accordance with Islamic law), predicated on the extension of *qiyās* (analogical reasoning) to pedagogical instruments and the principle of *maṣlaḥah mursalah* (unrestricted public interest) in the protection of intellect and life, which are prioritized over classical textual constraints, thereby offering a transformative legal-ethical framework capable of accommodating rapid medical-technological advancement to realize sustainable human welfare in the digital era.
Keywords: Anthropomorphic Robots, Maqāṣid al-Sharīʿah, Islamic Medical Ethics, Contemporary Islamic Jurisprudence, Fatwa.

Abstrak

Integrasi cepat teknologi kecerdasan buatan dalam lanskap medis global telah memicu ketegangan diskursif yang signifikan dalam fikih Islam kontemporer, khususnya terkait batas-batas etis dan legitimasi hukum penggunaan robot antropomorfik untuk tujuan terapeutik yang sangat kompleks. Meskipun teknologi robotik, seperti model NAO, telah terbukti secara empiris berperan krusial dalam interaksi klinis dengan anak-anak penyandang autisme, literatur muʿāmalah (hukum transaksi dan sosial Islam) saat ini masih menyisakan kekosongan analitis yang mendalam terkait validitas wakaf atas aset bergerak yang secara visual bersinggungan dengan larangan penggambaran makhluk hidup, atau *taṣwīr* (penggambaran makhluk bernyawa). Penelitian ini berkontribusi dalam perdebatan akademik dengan merekonstruksi penalaran hukum yang secara sistematis menyelaraskan doktrin filantropi klasik dengan inovasi teknologi medis mutakhir melalui pendekatan *Maqāṣid al-Sharīʿah* (tujuan-tujuan hukum Islam) serta analisis *uṣūliyyah* (prinsip-prinsip metodologi hukum Islam) yang komprehensif terhadap konsensus fatwa kontemporer. Temuan utama menegaskan bahwa pengadaan dan wakaf atas robot antropomorfik tersebut dinilai sesuai dengan syariah, dengan dasar perluasan *qiyās* (penalaran analogis) terhadap

instrumen pedagogis serta penerapan prinsip *maṣlaḥah mursalah* (kemaslahatan umum yang tidak dibatasi nash) dalam perlindungan akal dan jiwa, yang diprioritaskan di atas pembatasan tekstual klasik, sehingga menawarkan kerangka hukum-etis transformatif yang mampu mengakomodasi pesatnya perkembangan teknologi medis modern demi terwujudnya kesejahteraan manusia yang berkelanjutan di era digital.
Kata kunci: Robot Antropomorfik; Maqāṣid al-Sharī᷾ah; Etika Medis Islam; Fikih Kontemporer; Fatwa.

Introduction

The World Health Organization (WHO) corroborates that autism spectrum disorder (ASD) is a manifestation of diverse and complex neurological deficiencies characterized by significant impairments in social interaction and interpersonal communication (Bertelli et al., 2022; Bhat, 2021). These clinical characteristics are frequently accompanied by behavioral rigidity, such as difficulties in transitioning between activities, hyper-attention to minute details, and atypical sensory responses to environmental stimuli. Statistically, individuals with autism are also prone to medical comorbidities, including epilepsy, depression, anxiety, and attention-deficit/hyperactivity disorder (ADHD) (Barlattani et al., 2023; Pehlivanidis et al., 2020; Tye et al., 2019). Beyond cognitive challenges, persistent behavioral barriers—such as chronic sleep disturbances and self-harming tendencies—impose a profound psychosocial burden on families (Al-Beltagi, 2021; Mula et al., 2021). The variation in intellectual functioning levels among individuals with autism represents an exceptionally broad spectrum, ranging from severe impairment to high cognitive abilities. Recent epidemiological data indicate an alarming global prevalence, with estimates suggesting that one in every one hundred children worldwide is diagnosed with this disorder (Baranne & Falissard, 2018; Kieling et al., 2024; Kumar et al., 2024; Piao et al., 2022). This phenomenon necessitates innovative medical and educational interventions to ensure the right to life and the quality of well-being for those affected within the global community.

In response to this clinical urgency, advancements in artificial intelligence technology have yielded revolutionary solutions through the utilization of social robotics in rehabilitation processes. One of the most prominent innovations is the NAO robot, globally recognized as the most progressive humanoid robotic entity developed for interactional purposes since 2006 (Gongor & Tutsoy, 2025; Lambert et al., 2020). Functionally, this robot is not merely a static mechanical device but a sophisticated artificial intelligence system capable of complex interactions through humanoid visualization and responsive sensors (Thakur et al., 2025; Wang et al., 2024). From economic and legal perspectives, the NAO robot meets the qualifications of mal al-mutaqawwim, or valuable property, in contemporary Islamic legal discourse due to its significant asset value (Mohd Thas Thaker et al., 2024; بورزق, & بن سالم 2025). The robot's capacity to emulate human expressions and movements renders it a highly effective medical aid (Riaz et al., 2025), while simultaneously instigating legal debates regarding its physical status. This technological transformation shifts the treatment paradigm from conventional methods toward robotic-based interventions that are more measurable

and repetitive. Consequently, the integration of this technology into healthcare institutions has become an exigent necessity requiring a robust regulatory foundation.

The efficacy of utilizing humanoid robots in clinical contexts has been validated by various empirical studies demonstrating a positive impact on the development of autistic children. Research conducted by Tuna (2022) through experimental studies proves that humanoid robots can significantly enhance symbolic play skills in children with autism spectrum disorder. These findings are reinforced by testimonials from parents who observed improvements in the quality of child interaction after engaging in robot-assisted therapy sessions (Tuna, 2022). Consistent with these findings, Al-Nafjan (2023) asserts that robot-assisted therapy is a highly promising application field for intelligent social robotics in achieving therapeutic and educational objectives (Al-Nafjan et al., 2023). Furthermore, a study by Mutawa (2023) involving early childhood subjects demonstrates that the use of the NAO robot is effective in stimulating levels of active participation and eye contact in experimental groups (Mutawa et al., 2023). This collective scientific evidence suggests that the presence of humanoid robots is no longer merely a supplement but an essential instrument in supporting the success of autism therapy in the digital era. These tangible clinical benefits provide a strong impetus for religious authorities to reassess the legal aspects of their utilization on a broader scale.

Within the perspective of Islamic law, the urgency of utilizing this technology can be justified through the framework of *Maqasid al-Shari'ah*, particularly regarding the aspects of *ḥifẓ al-nafs* (preservation of life) and *ḥifẓ al-ʿaql* (preservation of intellect). Efforts to restore the cognitive and social capabilities of autistic children through robotic technology represent a concrete implementation of protecting the existence of human reason. However, theoretical tensions arise regarding the use of humanoid objects that resemble the human form, or *tasybīh*, which in classical fiqh literature is often viewed restrictively. This legal debate becomes increasingly complex when the robot is positioned as a medical tool of a *darūrah* (necessity) or at least *hājiyyāt* (exigent need) nature. Islamic legal legitimacy is required to bridge the gap between the prohibition of using statues and the medical utility of humanoid robots that cannot be replaced by other media. The transformation of the robot's status from a mere artistic object to an instrument for safeguarding a child's intellectual function requires a profound and contextual fatwa analysis. Thus, the synchronization between medical scientific progress and Shari'ah principles becomes an absolute prerequisite for the acceptance of this technology within the Muslim societal ecosystem.

Despite the proven clinical benefits, a significant legal vacuum exists in contemporary Islamic legal literature concerning the status of humanoid robots as waqf (endowment) objects. To date, no *ijtihād jamāī* (collective legal reasoning) or specific fatwas have been established to regulate the legitimacy of endowing human-resembling artificial intelligence technology for medical purposes. The discourse on *waqf al-manqūl* (*waqf* of movable property), has long been dominated by traditional objects and has not yet addressed the

dimensions of cutting-edge technology characterized by value depreciation and technical maintenance requirements. The absence of applicable fatwa regulations causes hesitation at the institutional level in managing productive waqf funds for the procurement of these expensive therapeutic robots. In reality, the need for affordable access to autism therapy for lower-middle-class communities requires social financing schemes such as waqf. This challenge demands a reconstruction of the Islamic legal paradigm to accommodate technological developments as objects of sustainable perpetual charity (*jāriyah*). Therefore, a comprehensive fatwa analysis is necessary to provide legal certainty for endowers (wakif) and managers of waqf institutions.

This study aims to reconstruct the Islamic legal paradigm through a fatwa analysis regarding the legality of endowing humanoid robotics technology as a legal solution to contemporary medical needs. The primary focus of this research is to evaluate the fatwa foundations in legitimizing the use of humanoid forms for therapeutic purposes and their status as productive waqf objects for social welfare. Specifically, this study seeks to address three crucial issues: first, the legal status of creating and utilizing robots in human-resembling forms for medical interests; second, the legality of employing such robots in the therapeutic process for autistic children; and third, the validity of designating them as movable waqf objects. The approach utilized in this study does not merely adhere to black-letter law but holistically examines how fatwas can be effectively implemented in modern waqf practices. The contribution of this research is expected to bridge the gap between advancements in robotic technology and the need for adaptive Islamic legal regulations. The results of this analysis will serve as a vital reference for policymakers and Islamic legal practitioners in integrating artificial intelligence technology into Islamic philanthropic instruments for the benefit of humanity.

Literature Review

The discourse concerning the integration of robotics technology into Islamic law has undergone a significant evolution over the past decade, shifting from technical debates toward a more profound dialectic of ontological status (Kausar et al., 2024). Fatima Ismail Mash'al (2018) and Samir Muhammad Kazim (2020) established crucial theoretical foundations regarding the *takyīf fiqhī* (juridical characterization), of robots as entities that challenge the traditional boundaries of legal personality in Islam. Both scholars attempted to reconcile mechanical entities with the concept of *ahliyah* (legal capacity); however, their narratives remain largely confined to descriptive comparative-normative approaches. This debate reflects the intellectual tension between positioning robots as mere material instruments versus entities possessing functional autonomy within the realms of *muāmalah* (civil transactions) and *jināyah* (criminal law). Although these studies successfully identified fundamental legal risks, there remains a failure to formulate how such legal status can be transformed into enforceable norms within modern judicial systems. Consequently, an

epistemological shift is required to view robots not merely as passive legal objects, but as active elements within a digital legal ecosystem. The theoretical constructions developed by these early researchers provide a vital foundation for the development of Islamic regulations that are more adaptive to advancements in artificial intelligence.

The transition from debates over legal status toward practical applications in the digital economic ecosystem began to emerge in the work of Ahmad Sa'd al-Burai (2021), who explored the utilization of robots in smart trading systems. Al-Burai expanded the conceptual horizon by contextualizing the *al-Mu'āṭāh* (reciprocal delivery) contract within the interactions between humans and machines in automated supermarkets. However, when compared to the framework proposed by Mash'al, a gap exists in the methodology of legal *istinbāt* (derivation), as Al-Burai leans more toward a pragmatic utilitarian approach. This approach often neglects the philosophical foundations of digital sovereignty and algorithmic ethics, which are central to the sustainability of contemporary Islamic economic law. Furthermore, the reliance on classical analogies to explain high-technology phenomena indicates limitations in conventional *qiyās* (analogical reasoning) methods. Studies during this period were unable to address the challenge of how generated fatwas could serve as the basis for regulations with formal juridical binding force. Consequently, there is an urgent need to develop a fatwa methodology that moves beyond simple halal-haram labeling and addresses aspects of legal governance.

The utilization of robots within the religious-functional sphere, as mapped by Maha Atallah al-Otaibi (2022), marks a new chapter in the integration of technology into the domain of religious authority. Al-Otaibi explores the potential of robots to perform the functions of a mufti or khatib, domains previously considered sacred and exclusive to human capacity. Although this study contributes significantly to the analysis of the benefits (*maslahah*) and detriments (*mudarat*) of technology, the arguments constructed remain instrumentalist and have yet to address the dimension of economic sustainability. A conspicuous academic void exists where extant literature fails to connect robotic functionality with the concept of sustainable asset ownership. Most previous researchers viewed robots merely as operational costs or technical aids, without considering their potential as productive legal assets. This phenomenon indicates that the Islamic legal discourse on robotics remains fragmented and has not yet been integrated into the broader framework of Islamic philanthropy. This serves as the point of departure for the present study to fill the gap between robotics technology and productive waqf instruments.

The absence of discourse regarding robot waqf in previous literature reflects a stagnation in perceiving waqf objects, which are inherently dynamic and technological. The majority of waqf studies in the last decade have remained preoccupied with traditional assets such as land or buildings, and have only recently begun to explore cash and share waqf, while ignoring assets based on artificial intelligence. In fact, when linked to the perspectives of Al-Burai and Al-Otaibi, robots possess economic value and long-term utility that meet the criteria

for waqf objects according to the *maqāsid al-shari'ah* (higher objectives of Sharia). This void is not merely a matter of an absent topic, but a methodological limitation in positioning robots as entities capable of creating sustainable added value. This research seeks to deconstruct such conventional thinking by offering a new synthesis that positions robot waqf as an innovative legal instrument. Through this approach, robots are no longer viewed as legally isolated entities, but as an integral part of the ecosystem for empowering the ummah through waqf channels. This transformation is crucial to ensuring that Islamic law remains relevant and capable of leading the discourse on global technological sovereignty.

The significance of this research also lies in its effort to strengthen the foundation of fatwas as the primary basis for enforcing Islamic law in the era of digital disruption. Unlike previous studies that often-neglected implementation mechanisms, this research confronts prior theoretical findings with the practical requirements of contemporary legal enforcement. A critical synthesis of the works of Mash'al, Kazim, Al-Burai, and Al-Otaibi indicates that a new paradigm is required—one that views robots as legal assets possessing functional independence. This aligns with global developments in AI Ethics and digital sovereignty, which demand legal certainty regarding the ownership and utilization of intelligent technology. By positioning robots within the waqf framework, this study not only offers solutions for the development of the Islamic economy but also provides a new model for law enforcement based on public interest. This study explicitly claims novelty through its unique integration of classical fatwa *istinbāt* methodology with the demands of a modern, high-tech-based waqf ecosystem. Ultimately, this research is expected to serve as a primary reference in the evolution of Islamic law, capable of responding to contemporary challenges with full intellectual authority.

Research Methods

This study employs a qualitative design through a comprehensive inductive (*istiqrā*) approach to map the transformation of Islamic law in response to technological advancements. The selection of this method is necessitated by the urgent need to bridge the gap between classical jurisprudential norms regarding movable waqf (*al-Amwāl al-Manqūlah*) and the contemporary reality of artificial intelligence devices. Through this methodology, the research transcends mere literature synthesis to provide an epistemological justification for the evolution of legal thought. A multidisciplinary approach is integrated to facilitate a technical understanding of medical robotics prior to its incorporation into the juridical domain. This integration is crucial, as the research object constitutes a sophisticated technological entity requiring profound operational comprehension to ensure the resulting legal conclusions are accurate. This methodological construction aims to produce robust arguments for the formulation of new regulations within modern waqf institutions based on empirical evidence. Consequently, the transformation of raw data into legal conclusions is academically accountable and possesses practical applicability.

The implementation of the inductive method is conducted via a rigorous examination of fatwas from international bodies, such as the International Islamic Fiqh Academy, as well as classical jurisprudential literature relevant to the concept of *al-Amwāl al-Manqūlah*. The primary focus at this stage is to perform a precise *takyīf fiqhī* (legal characterization) of the NAO robot as a representative of advanced assistive technology. Determining the legal status of the NAO robot necessitates the identification of operational parameters, including therapeutic functions, service life, and technical maintenance mechanisms unique to the medical ecosystem. These primary data are systematically categorized to identify the intersection between medical utility and the validity requirements of waqf objects within the Shariah framework. Through this characterization, the study sharply differentiates between traditional static waqf and technological device waqf, which entails specific maintenance complexities. A detailed analysis of this object serves as a crucial methodological foundation before proceeding to a critical evaluation of the diverse opinions among jurists (fuqaha). Precision in the takyif fiqhi process ensures that the research outcomes maintain high relevance for strengthening Islamic legal enforcement standards in the future.

Subsequent analytical stages are executed by applying a comparative-critical approach rooted in the *Maqasid al-Shariah* evaluation framework and the principle of *Maslahah Mursalah*. This analysis is designed to evaluate prior legal opinions and correlate them with the fundamental objectives of protecting life (*hifz al-nafs*) and protecting property (*hifz al-mal*) within the context of autism therapy. The researcher utilizes the analytical lens of maslahah to determine whether the utilization of robotics in public healthcare services is categorized as a necessity (*darūriyyāt*) or a supplementary benefit. The integration of *Maqasid al-Shariah* ensures that the legal discourse does not remain confined to textual formalism but is instead oriented toward achieving broad social utility. This methodology also delineates how the results of fatwa analysis can be transformed into concrete regulatory standards or legal enforcement foundations for modern waqf institutions. The emphasis on legal enforcement constitutes a distinct advantage of this method, as it provides operational guidance for policymakers in legitimizing technology-based waqf. Ultimately, this holistic methodological framework generates a new legal synthesis that is responsive to the challenges of technological disruption in the digital era.

Result and Discussion

Robotic Autism Therapy and the Legal Realization of *Maqāsid al-Shari'ah*

The findings of this research affirm that *Maqāsid al-Shari'ah* functions as a dynamic regulatory framework capable of constructing the legal foundations for integrating advanced technologies into contemporary Islamic legal structures. This adaptability is evident in the capacity of *Maqāsid* to respond to the Metaverse ecosystem, which blurs the boundaries between physical reality and digital entities through various forms of visual representation (Al-kfairy et al., n.d.; Baig, 2024; Efe, 2025). The primary analytical focus has shifted from mere

formalistic jurisprudence toward a substantial evaluation of the protection of intellect (hifz al-aql) and the protection of life (*hifz al-nafs*) in the utilization of robotic technology (Kausar et al., 2024). The implementation of *Maqāsid* in this context is not merely reactive to innovation but is also proactive in establishing ethical parameters for human interaction with artificial intelligence. The deployment of medical robots for autism therapy serves as a crucial test case for the flexibility of Islamic law in distinguishing between the prohibition of imitating living beings and the fulfillment of *darūriyyat* (pressing necessities) (Mahamood et al., 2023). Consequently, the *Maqāsid* framework provides a basis for establishing legal certainty amidst massive and rapid global technological disruption. This analysis demonstrates that every dimension of technology, whether virtual or physical, must be subject to a systemically and theologically measured evaluation of public interest (*maslahah*).

The discourse concerning humanoid robotics for pediatric autism therapy necessitates a paradigm shift from the classical paradigm of visual representation (*taṣwīr*) toward a contemporary paradigm of medical functionality. The majority of scholars from the Maliki, Shafi'i, and Hanbali schools provide concessions through legal analogy (*qiyās*) to children's toys, which hold specific exceptions within hadith texts. This argument rests on the premise that robots resembling humans are not intended to rival divine creation but serve as instruments for education and mental health recovery (Puzio, 2025). The hadith regarding the winged horse belonging to Aisha RA serves as a point of departure for jurists (*fuqahā*) to permit visual representations aimed at providing psychological comfort for children (van der Velden, n.d.). Conversely, opinions advocating for an absolute prohibition tend to maintain theological caution regarding the potential for visual fitnah and material idolization, which are irrelevant in a medical context. However, within the framework of contemporary legal enforcement, the permissive view is regarded as more relevant to modern exigencies based on *hājah* (need) that occupies the status of *darūrah* (necessity). This fatwa transformation marks a shift from the mere prohibition of visualizing living creatures toward full support for technological innovations that enhance human welfare.

The utilization of robotics in autism therapy constitutes a concrete manifestation of the protection of intellect, which is a primary pillar within the *Maqasid al-Shari'ah* system. Robots act as stable interaction bridges for autistic children, which is medically proven to significantly improve their cognitive and social capacities (Dickstein-Fischer et al., 2018; Kohli et al., 2023). From an Islamic legal perspective, the restoration of intellectual function through these technological media is categorized as part of the general mandate for medical treatment (*al-tadāwī*) (Bakhtiar, 2019). The involvement of both physical robots and digital avatars in the Metaverse must be evaluated based on their effectiveness in mitigating the risk of mental degradation in children suffering from autism (Cerasa et al., 2022). The resulting fatwas are no longer merely descriptive-normative; they have become regulatory instruments supporting Sharia-based public health policies. This demonstrates that Sharia does not impede scientific progress but provides a moral trajectory to ensure such technology remains

within the corridors of humanity. Thus, the legal legitimacy of medical robotics strengthens the position of Islamic law as a system responsive to empirical realities in modern medicine.

The expansion of Islamic legal scope also targets the philanthropic sector through the legality of robotic waqf (endowment) for the medical requirements of children with autism (Ayub et al., 2024). Given the absence of explicit scriptural texts (*naṣ*) prohibiting advanced technological endowments, this research employs an *istislahī* approach that prioritizes public interest over classical jurisprudential formalities (Almalki, 2019). Legal enforcement in the domain of waqf is transforming from the mere endowment of static physical assets to the support of high-tech-based productive waqf innovations. *Al-maslahah al-mursalah* serves as the primary legal instrument in determining that any asset providing sustainable benefits to public health is eligible to become an object of waqf (Yumarni & Mubarak, 2025). Legal certainty regarding robotic waqf provides assurance for donors and management institutions to integrate technology into the Islamic humanitarian ecosystem (Yusof, 2025). This step is crucial to ensure that Sharia healthcare facilities have access to cutting-edge medical equipment without narrow legalistic constraints. Therefore, the practice of robotic waqf serves as empirical evidence of the evolution of Islamic legal institutions in addressing the challenges of healthcare access poverty in the digital era.

The integration between robotic fatwas and the digital ecosystem requires the formulation of operational standards that can be adopted into national Sharia hospital regulations (Sona, 2024). This transformative analysis synthesizes various scholarly opinions into a robust regulatory framework to navigate the complexities of interactions in virtual spaces. Clarifying the boundaries between virtual technology and physical reality is essential to prevent overlaps in determining the legal status of such digital entities. The analyzed fatwas serve as a foundational basis for applicable Islamic legal enforcement for medical practitioners and Muslim technology developers. Through a dialectic between classical texts and contemporary realities, this research successfully positions Islam as a pioneer in the development of global technological ethics (Shaukat et al., 2024). The successful adaptation of *Maqasid al-Shari'ah* in this issue is expected to serve as a model for resolving legal disputes in other fields of artificial intelligence in the future. Ultimately, this research reaffirms that the future of Islamic law lies in its ability to synergize revelation with innovation for the universal benefit of humanity.

Legal Aspect	Basis of Analogy (*Qiyās*)	Argument of Public Interest (*Maṣlaḥah*)	Legal Status
Humanoid Visualization	Ḥadīth on Lu'ab al-Banāt (Children's Dolls)	Supports the psychological comfort of the child	Ja'iz (Permissible)
Robotic Interaction	Al-Tadāwī (Medical Treatment)	Ḥifẓ al-'Aql (Protection of Intellect)	Mandūb (Recommended)

Technological Waqf	Al-Maṣlaḥah al-Mursalah (Unrestricted Public Interest)	Sustainability of Sharia-based medical innovation	Ja'iz (Permissible)

Source: Author's interpretation

Operationalizing *Maqāṣid al-Sharī'ah* in Medical Robotics: Ḥifẓ al-Nafs and Ḥifẓ al-'Aql

The debate concerning the legal status of utilizing representations of animate beings in the form of dolls or robots necessitates a profound *tarjīh* analysis to establish legal certainty for the modern Muslim community. This study posits that the arguments presented by the proponents, predicated upon the Hadith of Aisha (may Allah be pleased with her), possess a more resilient legal cogency compared to the prohibitionist perspective. Despite attempts at refutation through claims of *nasakh* (abrogation) or specific privilege, historical evidence indicates that the aforementioned Hadith emerged during the late Prophetic period, thereby weakening the abrogation thesis. The methodological principle of *al-Jam'u bayna al-Adillah* (reconciliation of evidences) proves superior to the marginalization of specific texts when responding to social phenomena (Vaditya, 2018). Consequently, the legal inclination adopted in this research validates the permissibility of creating human or animal figures for pedagogical purposes. This foundation serves as a crucial point of departure in justifying the adoption of advanced anthropomorphic robotic technology as a therapeutic instrument for children with autism.

The legal justification for robotics within this medical context must not be viewed superficially but should be situated within a comprehensive *Maqasid al-Shariah* framework (Mustapha & Malkan, 2025). The transition from conventional dolls to therapeutic robotics involves an ijtihad process that simultaneously considers the preservation of life (*hifz al-nafs*) and the preservation of intellect (*hifz al-aql*) (AlJahsh, 2024). Robots specifically designed for social interaction with autistic children possess a robust legal reasoning, acting as mediators for cognitive rehabilitation that cannot yet be fully replaced by human intervention (Giansanti et al., 2025; Pohrib et al., 2024). In this perspective, Islamic law no longer perceives the physical form of the robot as an idol, but rather as a technological apparatus with measurable utilitarian functions (*maslahah*). This analysis aligns with global trends over the last decade emphasizing the integration of technology in fulfilling the healthcare rights of persons with disabilities. Thus, the *mubah* (permissible) status of doll usage is expanded into a functional necessity within the contemporary medical realm through the principle of valid legal extension or qiyas.

The implementation of the Islamic legal maxim *al-Ḥājah tunazzalu manzilata al-Ḍarūrah* (need descends to the level of necessity) constitutes a fundamental pillar in strengthening the legal basis for utilizing such robots in medical emergencies (Rohim, 2022). The urgent need to address neurodevelopmental disorders in children elevates the use of visual aids to a critical level for their social survival (Scattolin et al., 2022). From a scientific-

legal standpoint, the existence of these robotics meets the criteria of a *wasilah* (means) toward achieving Sharia objectives classified as *darūriyyāt* (essentials). The author contends that concerns regarding the visual aspects of living beings should be set aside to achieve more essential, long-term health objectives. Legal enforcement in this regard reflects the flexibility of the Sharia, which is capable of adapting to the complexities of technological innovation in medicine (Taufik Syamlan et al., 2025). This demonstrates that classical jurisprudential discourse can provide space for modern scientific breakthroughs without losing its normative identity in protecting the welfare of the human intellect.

The discourse on the adaptability of Islamic law does not conclude with medical technology but extends to the evolution of social financial instruments through movable property waqf (*waqf al-manqūl*) (Rock-Singer, 2022). There is a strong common thread between the flexibility in permitting medical robotics and the dynamics of legal thought regarding the expansion of movable waqf in the modern era. Both phenomena represent a paradigm shift from rigid textualism toward a functional approach that prioritizes the expansion of public utility. The researcher observes that this narrative transition is necessary to demonstrate how contemporary fatwas function as a bridge for the modernization of Islamic law across various sectors. The legal adaptation of movable property as a waqf object reflects the same spirit as the legalization of robotics in healthcare (Kunhibava et al., 2024). Both are manifestations of ijtihad oriented toward *maslahah āmmah* (public interest) and the sustainability of long-term social benefits through dynamic legal instruments.

The legal evolution of movable property waqf has reached a new consensus through the strategic role of international fatwa institutions possessing high intellectual authority (Kasdi et al., 2022). Traditionally, waqf was often associated with immovable property to ensure the perpetuity of the principal; however, modern economic exigencies demand a redefinition of this concept. The researcher notes that contemporary jurisprudential positions now firmly support the legality of *waqf al-manqūl* as an instrument to diversify socio-religious assets. This support is not merely a theological preference but a response to the highly dynamic and liquid realities of global financial markets. Institutions such as AAOIFI and the International Islamic Fiqh Academy (IIFA) serve as catalysts in formulating Sharia standards that allow financial assets and other movable objects to be legitimately endowed. The formalization of these opinions provides the basis for many Muslim countries to reform their waqf legislation, making it more relevant to contemporary demands without violating the principle of perpetual benefit.

The transformation of collective fatwas into a binding legal basis at the state level can be clearly observed through the adoption of AAOIFI Sharia Standards and IIFA resolutions (Safdar, 2025). In countries such as Qatar, the United Arab Emirates, and Kuwait, these standards no longer function as mere moral exhortations but have been formally integrated into national positive law. This process demonstrates a mechanism of legal convergence where *ijtihīd jamāī* (collective ijtihad) is transformed into legal norms with mandatory force

through national legislation. Legal authorities in these Gulf States recognize that reliance on individual ijtihad is no longer sufficient to manage the complexities of modern Islamic finance. By adopting international standards, these nations gain both Sharia legitimacy and legal certainty for global stakeholders. This phenomenon reinforces the strategic role of transnational fatwa institutions in interactively shaping the national legal architecture of the modern Islamic world.

The analysis of the mechanisms for adopting international standards into national law requires a deep understanding of legal enforcement theory within the Islamic legal system. A fatwa, which is ontologically non-binding, can transform into a binding *qanun* (statute) upon ratification by a sovereign political authority. In Qatar and Kuwait, this process is achieved through regulatory harmonization that refers directly to IIFA resolutions when drafting waqf and Islamic banking laws. This creates a legal ecosystem where Sharia values are systematically codified to ensure social order and justice. This integration provides empirical evidence that Islamic law possesses the capacity to become effective hard law in regulating complex public affairs. The success of this transformation depends heavily on the harmonious synergy between ulama, legal experts, and policymakers at the sovereign state level.

The phenomenon of fatwa adoption also indicates significant socio-legal dynamics where society tends to accept collective authority over individual opinions. Public trust in institutions such as AAOIFI or the IIFA is based on the methodological credibility and global representation of various schools of jurisprudence offered transparently. In the context of a modern society exposed to massive information flows, the certainty provided by *ijtihīd jamāī* offers psychological stability and transaction certainty. State legal authorities utilize this sentiment to strengthen the legitimacy of the regulations they issue, thereby increasing voluntary legal compliance. The dialectic between fatwas and statutes creates a more democratic model of legal governance that remains anchored in sacred religious values. Thus, contemporary fatwas have evolved into dynamic instruments that accommodate social change without abandoning fundamental legal traditions.

Philosophically, the relationship between fatwas and legislation in Gulf States reflects a hybrid model in the contemporary Islamic legal system that combines elements of soft law and hard law. International fatwas function as soft law providing normative-technical guidance, while national laws act as hard law ensuring the enforcement of sanctions and social order. This pattern is highly relevant to international law literature of the past decade discussing how global standards influence domestic policy through legal assimilation. The researcher argues that the success of Qatar, the UAE, and Kuwait in adopting movable property waqf proves the effectiveness of this hybrid model in maintaining legal sovereignty. This model allows the state to remain administratively modern while remaining deeply connected to its religious identity. The existence of such a legal framework is crucial for attracting global investment in the Islamic economic sector, which demands transparency and universally uniform standards.

In conclusion of this dialectic, the recognition of the legality of medical robotics and movable property waqf constitutes tangible evidence of the vitality of Islamic law in responding to the challenges of the age. Both cases demonstrate that the enforcement of Islamic law is no longer restricted to ritualistic aspects but has permeated broad technological innovation and financial engineering. The synthesis between authoritative institutional fatwas and state legislation has created a solid foundation for protecting the interests of the ummah in an era of technological disruption. This article asserts that the future of Islamic law lies in its ability to perform transformative ijtihad grounded in the objective realities of modern society. Through an interdisciplinary approach, Islamic law will continue to provide solutions to increasingly complex humanitarian problems in the future. The implications of these findings are expected to serve as a reference for other Muslim nations in pursuing legal reforms based on *maslahah* and global civilizational progress.

Conclusion

This study constructs a new paradigm in contemporary Islamic legal enforcement by establishing robotics technology as a legally valid object of waqf through the mechanism of *takhrīj fiqhī* (juristic derivation) based on an analogy with educational dolls of high medical urgency. The validation of anthropomorphic robots within a therapeutic context represents a legal breakthrough that successfully mediates classical debates regarding *taṣwīr* (figurative representation or image-making) with the exigent demands of modern healthcare requirements. This argument is reinforced through a rigorous *takhrīj al-manāṭ* (ascertainment of the effective legal cause) analysis, wherein robotic functionality is positioned as a functional instrument within the category of *al-amwāl al-manqūlah* (movable and productive assets) that possesses sustainable utility value. Fundamentally, this legitimacy is rooted in the *Maqāṣid al-Sharīʻah* (objectives of Islamic law) framework, specifically the principles of *ḥifẓ al-nafs* (protection of life) and *ḥifẓ al-ʻaql* (protection of intellect), which prioritize the protection and restoration of pediatric mental health as a primary universal welfare interest. These findings significantly transform the concept of *maṣlaḥah mursalah* (unrestricted public interest) from a mere complementary justification into a dynamic methodological instrument that expands the scope of Islamic philanthropy into the realm of disruptive high-technology innovation. The theoretical implications of this research provide an authoritative basis for global fatwa institutions to adopt Sharīʻah-based social impact investment models through the integration of artificial intelligence into national waqf regulations that are adaptive to temporal shifts. As a future-oriented reflection, this legal formulation is projected to serve as a benchmark for the development of medico-technological jurisprudence capable of responding to the complexities of the digital era to realize equitable social welfare for the global Muslim community.

References

Al-Beltagi, M. (2021). Autism medical comorbidities. In *World journal of clinical pediatrics* (Vol. 10, Issue 3, pp. 15–28). https://doi.org/10.5409/wjcp.v10.i3.15

Al-kfairy, M., Alrabaee, S., & Alfandi, O. (n.d.). Navigating the ethical landscape of metaverse: Challenges, solutions and governance initiatives. *Solutions and Governance Initiatives*.

Al-Nafjan, A., Alhakbani, N., & Alabdulkareem, A. (2023). Measuring engagement in robot-assisted therapy for autistic children. *Behavioral Sciences*, *13*(8), 618. https://doi.org/10.3390/bs13080618

AlJahsh, M. A. I. (2024). Science and Islamic ethics: Navigating artificial womb technology through Quranic principles. *Heliyon*, *10*(17), 1–10. https://doi.org/10.1016/j.heliyon.2024.e36793

Almalki, F. F. (2019). *Public/Private Distinction in Islamic Jurisprudence: Reflection on Islamic Constitutionalism*.

Ayub, M., Khan, K., & Ismail, M. (2024). *Waqf in Islamic economics and finance: An instrument for socioeconomic welfare*. Routledge.

Baig, M. A. (2024). *The Key Ethical Issues of Metaverse and Relevant Fatwa Literature*. Hamad Bin Khalifa University (Qatar).

Bakhtiar, K. (2019). *Medical Futility: Islamic Bioethics Perspectives*. Hamad Bin Khalifa University (Qatar).

Baranne, M. L., & Falissard, B. (2018). Global burden of mental disorders among children aged 5–14 years. *Child and Adolescent Psychiatry and Mental Health*, *12*(1), 19. https://doi.org/10.1186/s13034-018-0225-4

Barlattani, T., D'Amelio, C., Cavatassi, A., De Luca, D., Di Stefano, R., Di Berardo, A., Mantenuto, S., Minutillo, F., Leonardi, V., & Renzi, G. (2023). Autism spectrum disorders and psychiatric comorbidities: A narrative review. *Journal of Psychopathology*.

Bertelli, M. O., Azeem, M. W., Underwood, L., Scattoni, M. L., Persico, A. M., Ricciardello, A., Sappok, T., Bergmann, T., Keller, R., Bianco, A., Corti, S., Miselli, G., Lassi, S., Croce, L., Bradley, E., & Munir, K. (2022). Autism Spectrum Disorder BT -. In M. O. Bertelli, S. (Shoumi) Deb, K. Munir, A. Hassiotis, & L. Salvador-Carulla (Eds.), *Textbook of Psychiatry for Intellectual Disability and Autism Spectrum Disorder* (pp. 369–455). Springer International Publishing. https://doi.org/10.1007/978-3-319-95720-3_16

Bhat, A. N. (2021). Motor impairment increases in children with autism spectrum disorder as a function of social communication, cognitive and functional impairment, repetitive behavior severity, and comorbid diagnoses: A SPARK study report. *Autism Research*, *14*(1), 202–219.

Cerasa, A., Gaggioli, A., Marino, F., Riva, G., & Pioggia, G. (2022). The promise of the metaverse in mental health: the new era of MEDverse. *Heliyon*, *8*(11). https://doi.org/10.1016/j.heliyon.2022.e11762

Dickstein-Fischer, L. A., Crone-Todd, D. E., Chapman, I. M., Fathima, A. T., & Fischer, G. S. (2018). Socially assistive robots: current status and future prospects for autism interventions. *Innovation and Entrepreneurship in Health*, *5*(null), 15–25.

https://doi.org/10.2147/IEH.S138753

Efe, A. (2025). The Metaverse as a Convergence of Virtual and Real Worlds: A Risk Assessment in the Context of Ethics. *Online Journal of Technology Addiction and Cyberbullying*, *12*(1), 28–59.

Giansanti, D., Lastrucci, A., Iannone, A., & Pirrera, A. (2025). A Narrative Review of Systematic Reviews on the Applications of Social and Assistive Support Robots in the Health Domain. *Applied Sciences*, *15*(7), 3793. https://doi.org/10.3390/app15073793

Gongor, F., & Tutsoy, O. (2025). On the Remarkable Advancement of Assistive Robotics in Human-Robot Interaction-Based Health-Care Applications: An Exploratory Overview of the Literature. *International Journal of Human–Computer Interaction*, *41*(2), 1502–1542. https://doi.org/10.1080/10447318.2024.2342101

Kasdi, A., Karim, A., Farida, U., & Huda, M. (2022). Development of Waqf in the Middle East and its Role in Pioneering Contemporary Islamic Civilization: A Historical Approach. *Journal of Islamic Thought and Civilization*, *12*(1), 140–153. https://doi.org/10.32350/jitc.121.10

Kausar, S., Leghari, A. R., & Soomro, A. S. (2024). Analysis of the Islamic Law and its Compatibility with Artificial Intelligence as a Emerging Challenge of the Modern World. *Annals of Human and Social Sciences*, *5*(1), 99–114. https://doi.org/10.35484/ahss.2024(5-I)10

Kieling, C., Buchweitz, C., Caye, A., Silvani, J., Ameis, S. H., Brunoni, A. R., Cost, K. T., Courtney, D. B., Georgiades, K., Merikangas, K. R., Henderson, J. L., Polanczyk, G. V, Rohde, L. A., Salum, G. A., & Szatmari, P. (2024). Worldwide Prevalence and Disability From Mental Disorders Across Childhood and Adolescence: Evidence From the Global Burden of Disease Study. *JAMA Psychiatry*, *81*(4), 347–356. https://doi.org/10.1001/jamapsychiatry.2023.5051

Kohli, M., Kar, A. K., & Sinha, S. (2023). Robot facilitated rehabilitation of children with autism spectrum disorder: A 10 year scoping review. *Expert Systems*, *40*(5), e13204. https://doi.org/10.1111/exsy.13204

Kumar, P. M., Udaya Kumar, V., Meenakshi, S., Bahekar, T. N., Narapaka, P. K., Dhingra, S., & Murti, K. (2024). Chapter 1 - Epidemiology and risk factors of mental disorders. In D. Bagchi, R. N. Chaurasia, & S. E. Ohia (Eds.), *A Review on Diverse Neurological Disorders* (pp. 3–12). Academic Press. https://doi.org/10.1016/B978-0-323-95735-9.00003-6

Kunhibava, S., Muneeza, A., Khalid, M. B., Mustapha, Z., & Sen, T. M. (2024). Legal Framework for Waqf. In *Islamic Social Finance: Law and Practice in Malaysia* (pp. 45–68). Springer.

Lambert, A., Norouzi, N., Bruder, G., & Welch, G. (2020). A Systematic Review of Ten Years of Research on Human Interaction with Social Robots. *International Journal of Human–Computer Interaction*, *36*(19), 1804–1817. https://doi.org/10.1080/10447318.2020.1801172

Mahamood, S. F., Fikry, A., Hamzah, M. I., Khalid, M. M., Bhari, A., & Rosyad, A. M. (2023). Fiqh Robotic For Artificial Intelligent In Humanoids Used For Therapy, Services And Other Social Activities: An Integration Of Artificial Intelligence (Ai) And Maqasid Shariah. *Journal of Fatwa Management and Research*, *28*(2), 1–13.

Mohd Thas Thaker, M. A. Bin, Akbar, M. A., & Imon, R. A. A. (2024). Toward an understanding

of the robot rights spectrum: an integrative framework from an Islamic economics perspective. *Journal of Islamic Marketing*, *16*(5), 1447–1468. https://doi.org/10.1108/JIMA-04-2023-0132

Mula, M., Kanner, A. M., Jetté, N., & Sander, J. W. (2021). Psychiatric comorbidities in people with epilepsy. *Neurology: Clinical Practice*, *11*(2), e112–e120. https://doi.org/10.1212/CPJ.0000000000000874

Mustapha, R., & Malkan, S. N. A. (2025). Maqasid Al-Shariah In The Ai Era: Balancing Innovation And Islamic Ethical Principles. *International Journal of Islamic Theology & Civilization (E-ISSN-3009-1551)*, *3*(3), 1–21. https://doi.org/10.5281/zenodo.15381828

Mutawa, A. M., Al Mudhahkah, H. M., Al-Huwais, A., Al-Khaldi, N., Al-Otaibi, R., & Al-Ansari, A. (2023). Augmenting Mobile App with NAO Robot for Autism Education. *Machines*, *11*(8), 833. https://doi.org/10.3390/machines11080833

Pehlivanidis, A., Papanikolaou, K., Mantas, V., Kalantzi, E., Korobili, K., Xenaki, L.-A., Vassiliou, G., & Papageorgiou, C. (2020). Lifetime co-occurring psychiatric disorders in newly diagnosed adults with attention deficit hyperactivity disorder (ADHD) or/and autism spectrum disorder (ASD). *BMC Psychiatry*, *20*(1), 423. https://doi.org/10.1186/s12888-020-02828-1

Piao, J., Huang, Y., Han, C., Li, Y., Xu, Y., Liu, Y., & He, X. (2022). Alarming changes in the global burden of mental disorders in children and adolescents from 1990 to 2019: a systematic analysis for the Global Burden of Disease study. *European Child & Adolescent Psychiatry*, *31*(11), 1827–1845. https://doi.org/10.1007/s00787-022-02040-4

Pohrib, S. D., Lupu, D. M., & Pisla, A. (2024). Transformative Roles of Robotics in Rehabilitation and Education. *International Conference Innovation in Engineering*, 159–168.

Puzio, A. (2025). Robot, let us pray! Can and should robots have religious functions? An ethical exploration of religious robots. *Ai & Society*, *40*(2), 1019–1035. https://doi.org/10.1007/s00146-023-01812-z

Riaz, W., Ji, J., Zaman, K., & Zengkang, G. (2025). Neural Network-Based Emotion Classification in Medical Robotics: Anticipating Enhanced Human–Robot Interaction in Healthcare. *Electronics*, *14*(7), 1320. https://doi.org/10.3390/electronics14071320

Rock-Singer, A. (2022). *In the shade of the Sunna: Salafi piety in the twentieth-century Middle East*. Univ of California Press.

Rohim, A. N. (2022). Dharurah and the Realization of Maqashid Sharia: Analysis of the Implementation of Islamic Legal Maxims on Emergency. *Nurani: Jurnal Kajian Syari'ah Dan Masyarakat*, *22*(1), 63–80. https://doi.org/10.19109/nurani.v22i1.11449

Safdar, M. (2025). *The Role of AAOIFI in Standardizing Sharīʿah Governance Practices Globally*. https://doi.org/10.2139/ssrn.5251190

Scattolin, M. A. de A., Resegue, R. M., & Rosário, M. C. do. (2022). The impact of the environment on neurodevelopmental disorders in early childhood. *Jornal de Pediatria*, *98*(1), 66–72. https://doi.org/10.1016/j.jped.2021.11.002

Shaukat, M. A., Samra, U., Hassan, J., Saadi, C., & Hayat, I. (2024). Morality from Classical

Civilizations to Post-Modern Era: A Historical Account Through Islamic Lens. *Journal of Islamic Thought and Civilization*, *14*(2 SE-Articles). https://doi.org/10.32350/jitc.142.19

Sona, F. (2024). Accelerating the Digital Transition: European and Muslim Responses to Artificial Intelligence and ICT s. *Journal of Religion in Europe*, *18*(1), 26–58. https://doi.org/10.1163/18748929-bja10112

Taufik Syamlan, Y., Wahyuni, S., Heruwasto, I., & Hamsal, M. (2025). Exploring sharia compliance parameters in marketing to foster innovation and collaboration within Islamic finance. *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-04-2024-0172

Thakur, A., Kaipa, K., Banerjee, A. G., Cappelleri, D. J., Krovi, V. N., & Gupta, S. (2025). Physical Artificial Intelligence for Powering the Next Revolution in Robotics. *Journal of Computing and Information Science in Engineering*, *25*(12), 120809. https://doi.org/10.1115/1.4070122

Tuna, A. (2022). Inclusive education for young children with autism spectrum disorder: Use of humanoid robots and virtual agents to alleviate symptoms and improve skills, and a pilot study. *Journal of Learning and Teaching in Digital Age*, *7*(2), 274–282. https://doi.org/10.53850/joltida.1071876

Tye, C., Runicles, A. K., Whitehouse, A. J. O., & Alvares, G. A. (2019). Characterizing the interplay between autism spectrum disorder and comorbid medical conditions: An integrative review. *Frontiers in Psychiatry*, *9*, 751.

Vaditya, V. (2018). Social Domination and Epistemic Marginalisation: towards Methodology of the Oppressed. *Social Epistemology*, *32*(4), 272–285. https://doi.org/10.1080/02691728.2018.1444111

van der Velden, F. (n.d.). Art and Law in Islam. *Maastricht Law Series*, 439.

Wang, T., Zheng, P., Li, S., & Wang, L. (2024). Multimodal human–robot interaction for human-centric smart manufacturing: a survey. *Advanced Intelligent Systems*, *6*(3), 2300359. https://doi.org/10.1002/aisy.202300359

Yumarni, A., & Mubarak, J. (2025). The Concept Of Maslahah In Maintaining The Existence Of Individual Nazhir As An Authentication Of Indonesian Waqf From The Maqashid Shariah Perspective. *International Journal of Islamic Economics and Finance Research*, *8*(2), 87–95.

Yusof, M. A. bin. (2025). Waqf-Driven Inclusive Prosperity Exploring the Intersection of Islamic Finance, Fintech, and Sustainable Development Goals. In *Digitalization of Islamic Finance* (pp. 303–334). IGI Global Scientific Publishing.

بن سالم, M., & بورزق, A. (2025). Robotic Patents Between Islamic Sharia and Secular Law. *مجلة العلوم الإسلامية والحضارة*, *10*(2). https://doi.org/10.55781/rsic.v10i2.542