

The Expanding Landscape of AI in Muslim Communities: Key Categories and Use Cases

Artificial Intelligence (AI) is rapidly transforming Muslim societies, reshaping how communities approach religious practice, social welfare, business, and personal wellbeing. As highlighted by the Muslims in Machine Learning Workshop at ICML 2025, Muslim researchers and practitioners are leading and adapting AI-driven innovations to address challenges and opportunities unique to their contexts. This article aims to offer an overview of the most significant categories where AI is being adopted in Muslim circles, along with real-world use-cases and platforms that are currently making an impact.

1. Zakat

AI is revolutionizing zakat management by automating calculations, streamlining eligibility assessments, and enhancing transparency. Organizations like the National Zakat Foundation (NZF) leverage Microsoft Copilot Studio to automate donor engagement, compliance checks, and fund allocation, while platforms like Rumah Zakat in Indonesia use AI chatbots for donor education and real-time analytics. These systems analyze socioeconomic data to prioritize recipients, reduce manual errors, and provide donors with real-time updates, building greater trust and participation in zakat giving.

2. Islamic Guidance and Fatwas

AI is increasingly being integrated into the process of issuing fatwas (Islamic legal opinions). Singapore's MUIS Fatwa Lab uses large language models trained on local fatwa methodologies to support scholars in research and drafting, while platforms like IslamandAI.com and Salaam World's Junaid offer chatbot-based Q&A. In Dubai and Indonesia, virtual ifta services and AI presenters are emerging, making religious guidance more accessible—especially in minority or remote contexts. However, as recent incidents in the UK have shown, human oversight remains essential to prevent errors and maintain theological rigor.

3. Islamic Knowledge and Q&A

AI-powered platforms are democratizing access to Islamic knowledge. Tools like Islam & AI, MuslimAI.io, and AskMuslim.app use natural language processing to answer questions about Islamic law, history, and daily practice, drawing on large datasets of Quranic verses, hadith, and scholarly opinions. Apps such as Tarteel and Quran.com AI offer personalized Quranic learning, recitation correction, and memorization support, making religious education more interactive and accessible, particularly for diaspora and younger generations.

4. Business and Halal Compliance

AI is helping both consumers and businesses navigate the complexities of halal compliance and ethical finance. The Halal Personal Advisor guides companies through halal certification and compliance audits. AI and blockchain technologies are ensuring halal integrity from farm to table. Ingredient scanners, supply chain management AI, and halal blockchain platforms verify compliance, detect fraud, and guarantee authenticity throughout production, packaging, and distribution. Furthermore, travel platforms like HalalTrip use AI to personalize Muslim-friendly itineraries, recommend halal dining, and identify prayer spaces. In finance, AI-driven robo-advisors and compliance engines help ensure Shariah-compliant investing and risk management.

5. Islamic Finance

Islamic banks and fintech companies are increasingly harnessing AI to enhance Shariah compliance, detect fraud, and offer personalized financial services. AI-powered robo-advisors analyze user profiles and curate halal investment portfolios, ensuring that investments adhere to Islamic principles by screening out prohibited industries and interest-based products. Machine learning models help optimize sukuk (Islamic bond) issuance by forecasting market trends and investor demand, while AI-driven platforms streamline the administration of takaful (Islamic insurance) products through automated claims processing and risk assessment. These innovations can help to improve operational efficiency and drive financial inclusion, making ethical investing and Islamic financial products accessible to a broader audience, including underbanked populations in Muslim-majority and minority contexts.

6. Muslim-Friendly Travel and Tourism

AI is now powering personalized travel planning for Muslims. Services include itinerary generation and AI to transform the travel experience by delivering highly personalized and faith-sensitive services. Intelligent itinerary planners, such as those developed by the Singapore Tourism Board and HalalTrip AI, recommend halal restaurants, prayer spaces, and Muslim-friendly attractions based on real-time location and user preferences. AI chatbots provide instant travel support, answer questions about local halal options, and assist with language translation. Virtual guides, sometimes powered by augmented reality, offer historical and cultural context for Islamic heritage sites. These technologies help Muslim travelers navigate unfamiliar destinations with confidence, ensuring their spiritual needs are met while enhancing ease and enjoyment for purposeful travel.

7. Islamic Education

AI is revolutionizing Islamic education by making learning more adaptive, interactive, and accessible. Platforms like Tarteel, MuslimAI.io, and Islam & AI use speech recognition and deep learning to assist with Quran memorization, recitation correction

(tajweed), and personalized study plans. These platforms can identify common mistakes and adapt content to suit individual learning styles and levels. AI-powered ayah-level audio segmentation allows full-surah MP3s to be split ayah-by-ayah to assist in recitation and memorization. For formal institutions, AI-driven edtech solutions help automate grading, create customized curricula, and facilitate remote learning. For informal learners and diaspora communities, AI-powered apps bridge gaps in access to qualified teachers and authentic resources, democratizing Islamic education for all ages and backgrounds.

8. Islamic Research and Scholarship

AI tools are empowering scholars and students to conduct advanced research in Islamic studies. Greentech Apps Foundation is developing multiple tools to aid in this. Natural language processing and machine learning algorithms enable the textual analysis of vast corpora of Quranic exegesis, Hadith collections, and Islamic legal texts. Custom GPTs and AI-powered search engines allow for rapid, multilingual retrieval of classical sources, supporting cross-disciplinary and cross-linguistic research. LLM-driven knowledge graph & learning tools such as semantic links, auto-quizzes, and adaptive learning further enhances research. Collaborative platforms facilitate scholarly dialogue and annotation, while AI-driven translation tools help make primary Islamic texts accessible to a global audience. Perhaps the most contested and dangerous category, these advancements can accelerate knowledge production and foster new insights in Islamic scholarship as long as epistemological and ontological parameters remain sound.

9. Hajj, Umrah, and Religious Practice Support

AI-powered chatbots and virtual assistants are enhancing the spiritual journeys of Hajj and Umrah pilgrims. These tools provide real-time guidance on rituals and answer frequently asked questions. Some platforms incorporate virtual reality experiences, allowing users to explore the holy sites digitally. This is particularly invaluable for Muslims who are unable to travel. AI is also being used at the government policy level to manage crowd flows, optimize transportation, and ensure safety during peak pilgrimage seasons to prevent injury. This is a practical solution to support pilgrims in fulfilling their religious duties with greater ease and confidence.

10. Smart Cities and Community Services

AI is playing a pivotal role in the development of smart cities across the Muslim world, optimizing public services and infrastructure management in line with Islamic values. Smart mosque management systems use AI to monitor attendance, automate facility maintenance, and coordinate community events. Urban planners leverage AI-driven data analytics to design inclusive, sustainable neighborhoods that accommodate the needs of diverse populations, including the provision of prayer spaces and halal amenities. AI-powered platforms also enhance public safety, waste management, and

transportation, contributing to the overall wellbeing and cohesion of Muslim communities in rapidly urbanizing environments.

11. Da'wah and Digital Outreach

AI is amplifying da'wah (Islamic outreach) through content creation, social media engagement, and personalized digital outreach. Platforms like Islam & AI, AskMuslim.app, and Quran Companion offer real-time, multilingual Quranic chatbots, while TheDigitalDawah.com provides resources for AI-powered outreach. AI tools like Noormags and Jame-ol-Ahadith support rapid retrieval and dissemination of Islamic knowledge.

12. Mental Health and Wellbeing

AI-powered mental health chatbots and support platforms are emerging to provide culturally and spiritually sensitive counseling. Many platforms are piloting AI-driven wellbeing screening and anonymous chat support for Muslims facing emotional or faith-related struggles.

13. Marriage & Matchmaking

AI-powered matchmaking platforms are emerging to provide Muslims with efficient, secure, and Shariah-compliant ways to find compatible life partners. Platforms such as Azwaja.org, NoorMatch, Vidnik, Simply Nikah, Proposal, MyNikahNow, and Muzz use AI algorithms for compatibility analysis, identity verification, and privacy protection. Many incorporate features like Wali (guardian) involvement, blurred photo privacy, and female-only staff for sisters' profiles to ensure Islamic ethics and user comfort. Some, like MyNikahNow, even enable fully digital, halal nikah ceremonies. These innovations are helping Muslims worldwide pursue marriage in a manner that prioritizes faith, safety, and cultural sensitivity.

14. Halal Web Filtering & AI Content Moderation

AI-powered halal web filtering and content moderation tools are emerging to help Muslims create safer, ethically aligned online experiences. Solutions such as Kahf Guard and the Halalz AI Browser use AI and machine learning to block access to websites and content deemed haram, including pornography, gambling, and other material contrary to Islamic values. These tools often enforce safe search modes and can filter images, videos, and text in real time, providing family-friendly and privacy-focused browsing. In addition, multilingual AI content moderation platforms like Utopia AI Moderator and oworkers enable Muslim communities, businesses, and organizations to automatically detect and filter inappropriate or harmful user-generated content according to custom halal standards. These innovations empower Muslims to

uphold digital integrity and ethical guidelines while navigating the complexities of the internet.

Summary Table

Category	Example Applications	Actual AI Tools/Platforms
Zakat Distribution	Automated eligibility, smart fund allocation, live mapping, transparency	NZF/Microsoft Copilot , Rumah Zakat's Rania , Pickaxe
Fatwa/Guidance	AI-assisted fatwa labs, virtual ifta, chatbot Q&A	MUIS Fatwa Lab , IslamandAI.com , Salaam World , Dubai Virtual Ifta , MUI AI Presenters
Islamic Knowledge	AI chatbots, Quran/Hadith search, personalized learning	Islam & AI , MuslimAI.io , AskMuslim.app , Salaam World , Tarteel , Fanar Arabic GenAI Integration for IslamOnline
Business/Halal	Halal certification, compliance, market analysis	Halal Personal Advisor , HalalTrip AI , SmartDeen , HalalAI Compliance Bots , Islamic FinTech AI
Islamic Finance	Shariah compliance, robo-advisors, fraud detection	Robo-advisors, Shariah compliance engines, Strands Islamic Banking, AI investment trackers
Muslim Travel	Personalized itineraries, halal recommendations	HalalTrip AI , Singapore Tourism Board AI , SmartDeen , HalalAI travel bots
Islamic Education	Quran memorization, adaptive learning	Tarteel , MuslimAI.io , Salaam World , Islam & AI , Quran Align , Greentech Apps Foundation
Islamic Research	Textual analysis, multilingual research	Islam & AI , custom GPTs (search Islam), AI-powered Hadith/Quran search engines, Greentech Apps Foundation
Hajj/Umrah Support	Guidance robots, VR experiences, virtual assistants	AI Hajj/Umrah chatbots, VR guides, digital assistants, crowd monitoring
Smart Cities	Mosque management, urban planning, public service	Smart mosque AI, city planning AI , digital community tools

Category	Example Applications	Actual AI Tools/Platforms
Da'wah/Digital	Quranic chatbots, content creation, outreach	Islam & AI , AskMuslim.app , Tarteel , Noormags , Jame-ol-Ahadith , TheDigitalDawah.com
Mental Health	AI counseling, support chatbots, wellbeing screening	Muslim Therapy AI , emerging chatbots , community pilots
Marriage & Matchmaking	AI-powered matchmaking, nikah facilitation, privacy, verification	Azwaja.org , NoorMatch , Vidnik , MyNikahNow , Muzz , AI selfie verification, AI compatibility matching, Wali features
Internet Filters	Halal web filtering, AI content moderation, state censorship	Kahf Guard , Halalz AI Browser (beta)

Conclusion: Opportunities and Responsibilities

The growing adoption of AI across these categories demonstrates both the creativity and the caution of Muslim communities. Currently, the challenge is to harness AI for social good, ensure ethical and inclusive deployment, and maintain the integrity of Islamic knowledge and values. Muslim researchers are at the forefront of this movement and must ensure that they are shaping both the technology and the global conversation about fairness, representation, and responsible innovation in AI amidst the ethical and operational challenges in this emerging field.

This article is intended for the Muslim Researchers' Network (MRN) AI and Islam Research Group, reflecting the network's commitment to academic excellence, interdisciplinary engagement, and ethical leadership in research.

Author Bio: Ambar Khawaja is a member of the Muslim Researcher's Network AI and Islam research group, specializing in the intersection of technology, ethics, and international development. With a background in Public Administration and International Development from the LSE, Ambar explores how emerging technologies like artificial intelligence can be harnessed to empower minority communities worldwide while respecting cultural and religious values. She is passionate about fostering inclusive innovation and ethical AI adoption through interdisciplinary collaboration and community engagement.