



# AI for Khalifah: Reclaiming the Ethical Compass of Intelligence in the Muslim World

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## This is an Apple

- FACT
- OPINION
- DISINFORMATION
- MISINFORMATION
- FAKE NEWS



## WHAT NOW? Combating Misinformation



**Misinformation**

Artificial intelligence is powerful, and like any powerful tool, it needs guidance.

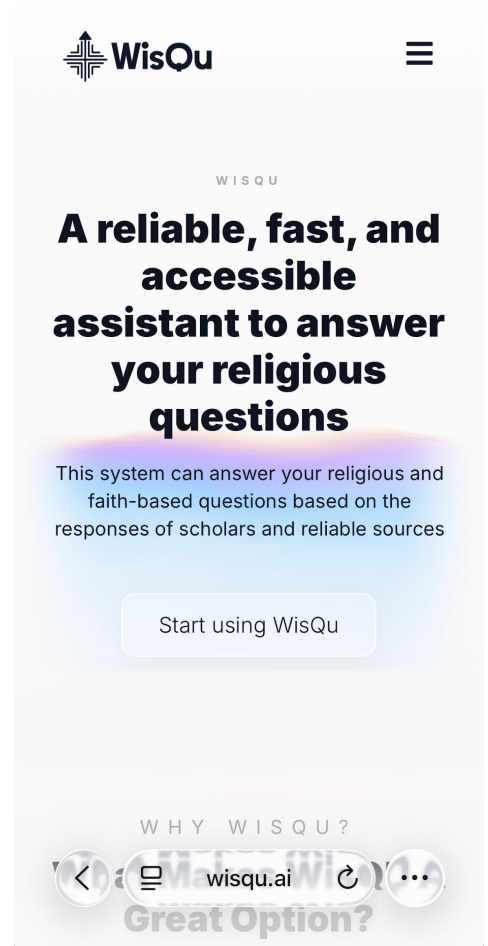
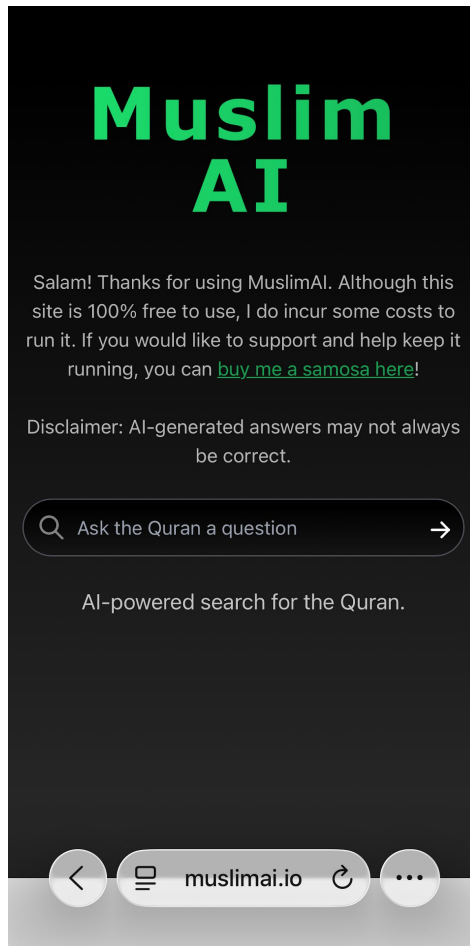
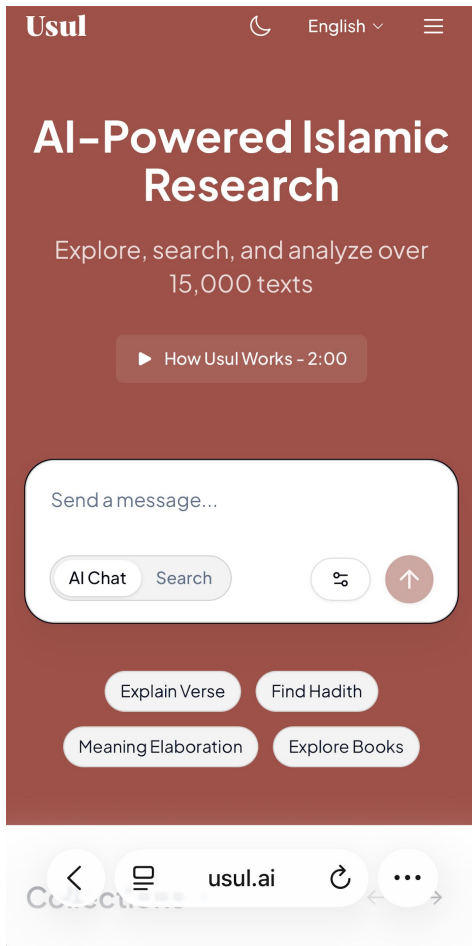
Islam already gives us principles on how to treat people fairly, protect dignity, avoid harm, and act with responsibility. These are exactly the issues AI raises today



When we talk about AI and Islam,  
we are not asking whether the  
technology is Muslim.

We are asking **whether the  
impact of the technology  
respects values that Islam  
emphasises: justice,  
transparency, dignity,  
accountability, and  
stewardship of the Earth.**

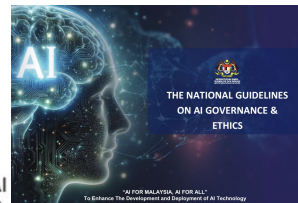




# AI Paradox

- ☒ AI is powerful but often **opaque, biased, and environmentally blind.**
- ☒ **Predictions alone don't heal** the planet; decisions guided by care do.
- ☒ Planetary Intelligence = Human + Machine + Ecosystem reasoning.

## 2.2 CASCADING THE 7 AI PRINCIPLES TO END USERS



The ubiquity of AI has made it necessary to consider how AI improves people's lives while avoiding harm. For example, according to the non-profit OpenAI (<https://openai.com>): "Our mission is to ensure that Artificial General Intelligence – AI systems that are generally smarter than humans – benefits all of humanity". Ethical developments in the AI industry are complemented by government initiatives, including MOSTI's National AI Roadmap 2021-2025 (<https://my-ai.my/>) which includes (p. 30) a table containing a set of seven AI principles. These principles are explained cascading for end users in detail below:

### 1. FAIRNESS

Fairness is a crucial principle in AI to prevent discrimination and ensure equal treatment. AI systems should not discriminate based on race, gender, or religion, and algorithm developers must be cautious of unintentional biases in the data. It is also important to consider the equitable distribution of AI benefits to avoid leaving certain groups without access to its advantages.

### 2. RELIABILITY, SAFETY AND CONTROL

When interacting with AI, it is crucial for the algorithms to be reliable and safe. This applies to robots in restaurants delivering food and face recognition systems accurately identifying individuals. Safety is especially important in areas like driverless cars, healthcare, and financial services. In addition, measures need to be taken to prevent intentional misuse and ensure control over AI systems.

### 3. PRIVACY AND SECURITY

Privacy and security are crucial when dealing with personal data like financial and health information. Proper procedures, informed consent, and secure storage are necessary to handle collected data responsibly. Complying with data protection laws is often required to ensure privacy. In addition, security measures are essential to prevent hacking and other malicious attacks by bad actors.

### 4. INCLUSIVENESS

Inclusiveness in AI means ensuring that no groups are unfairly excluded. Kedah rice farmers are unlikely to be thought of as a group who have much to gain from AI, and they themselves are unlikely to take much interest in AI as a discipline. Nevertheless, they have an interest in the potential of AI in developing and choosing the best seeds for their soil and climate, and in maximising the yield from their plots. Considering diverse stakeholders and promoting inclusiveness is the goal of these guidelines.

### 5. TRANSPARENCY

Transparency in AI is about being able to understand what an AI company does with personal data and having the right to access relevant information. It means that the company openly shows how it operates, especially regarding personal data, and provides the information that end users are entitled to know. Lack of transparency occurs when a company refuses to share important information upon request, which can be unfair.

### 6. ACCOUNTABILITY

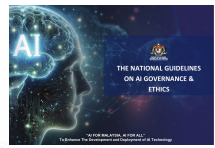
Accountability in AI involves taking responsibility for the actions and outcomes of the technology. In cases where something goes wrong, it can be challenging to pinpoint a single person or entity. In this respect, accountability needs to be identified and addressed during the design and deployment of AI systems to ensure that responsibility is properly assigned and fulfilled.

### 7. PURSUIT OF HUMAN BENEFITS AND HAPPINESS

The pursuit of human benefit and happiness is given prominence in AI because it serves as a central principle that other principles are connected to. It challenges the conventional view that companies should prioritize delivering dividends to shareholders and emphasizes the moral responsibility of organizations. AI practitioners, including OpenAI, prioritize this moral duty to promote human well-being and explicitly express it in their mission statement



## 2.6.3 Responsible AI from an Islamic Perspective



Islamic principles guide the ethical development of AI, as Islam emphasizes social good for public interest and human welfare. The 7 AI principles align with Islamic practices and can be used as a foundation to analyze the implications of AI. Muslim participants believe that understanding and applying Islamic principles can contribute to a knowledgeable and ethical approach to adopting AI, as they align with the teachings of Allah and the Islamic principles of responsible AI.

Islam, a way of life, guides all aspects of human existence, including the ethical adoption of AI technology. As viceregents (Khalifah) in the world, humans are responsible for the ethical consumption of resources provided by Allah. AI technologies have shown positive impacts on various aspects, such as education, business, and healthcare management. Islam accepts all technological progress, including AI, but requires ethical guidance to ensure it does not transgress Islamic boundaries and result in negative impacts.

AI in decision-making processes must adhere to ethical principles, promoting social justice and avoiding unfair treatment. Islam emphasizes the importance of human authority over AI systems to prevent misapplication and violate ethical principles. AI can optimize resource utilization, reduce waste, and promote sustainable practices, contributing to environmental preservation. Muslims seek guidance from Islamic teachings to address moral challenges posed by AI, such as self-governing weapons and stewardship of resources and the environment.

AI technology offers immense possibilities for Muslims, but it's crucial to respect human dignity, rights, and privacy. AI systems should promote inclusivity and diversity, avoiding disregard for human connection, compromise, and ethical judgment. Muslims believe AI should enhance human capabilities, not replace them, and upskilling and reskilling are essential for relevance in rapid technological changes.

The Islamic perspective on AI emphasizes the importance of ethical regulation and innovation, aligning with the 7 AI Principles. AI can address societal challenges and benefit humanity, but it also requires careful consideration of ethical dilemmas and human values preservation. By actively engaging in AI development and regulation, Muslims can contribute to a future where technology and ethics align with Responsible AI, fostering collaboration and open dialogue.

AI technology, while providing hardware and software, also plays a crucial role in spiritual values, providing the necessary heartware to drive activities forward.





# Human–Machine Teaming (HMT): A New Paradigm



Collaboration between humans, machines, and ecosystems.



Combines explainability, counterfactual reasoning, and ethical governance.

# HMT Components of Planetary Intelligence



**Explainability** – Transparent reasoning.



**Counterfactual Thinking** – Exploring 'what if' scenarios.



**Planet-in-the-Loop** – Integrating ecological feedback into decisions.



**Shared Agency** – Humans, Machines, and the Planet



# Foundations of Islamic AI Ethics

## Preservation of Intellect

AI should enhance human intellectual capacity and critical thinking.

## Preservation of Life

AI systems must prioritize human safety and well-being.

## Preservation of Lineage

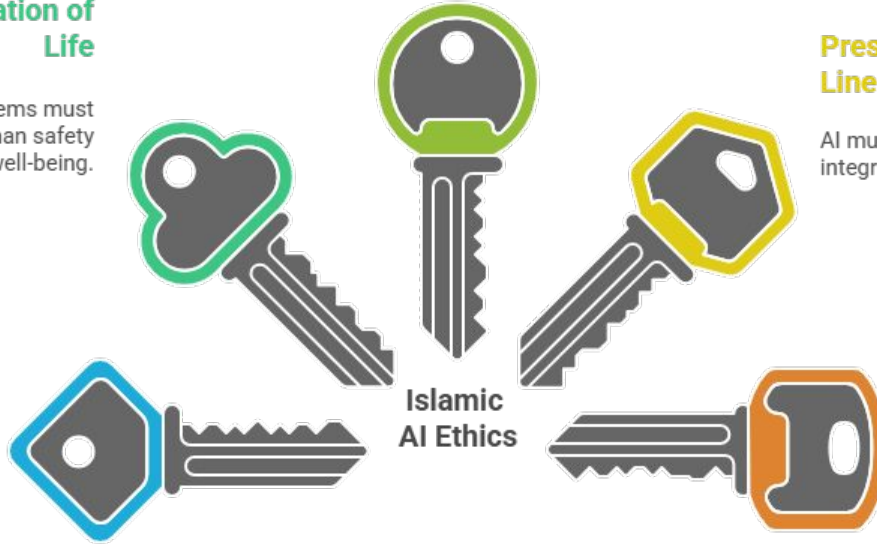
AI must protect family integrity and privacy.

## Preservation of Faith

AI should not undermine religious beliefs or replace human faith.

## Preservation of Wealth

AI financial systems must comply with Islamic Finance principles.



# Islamic Principles vs AI Ethics

Islamic Principle	Arabic Term	AI Ethics Implication
<b>Monotheism/Divine Trust</b>	<i>Tawhid / Amanah</i>	AI is a creation of Allah (God) through human intellect, and its use is a <b>trust</b> ( <i>amanah</i> ) for which humans are accountable. AI must not be deified or treated as having independent divine qualities.
<b>Justice and Fairness</b>	<i>Al-'Adl</i>	AI systems must be designed to be <b>unbiased, non-discriminatory</b> , and equitable, particularly in decision-making processes that affect marginalized groups.
<b>Public Welfare/Benefit</b>	<i>Al-Maslahah</i>	AI should serve the greater good of humanity and contribute to collective well-being, enhancing life, knowledge, and society, while <b>preventing harm</b> ( <i>la darar wa la dirar</i> ).
<b>Accountability</b>	<i>Muhasabah / Dhaman</i>	Humans remain the <b>moral and legal agents</b> . Developers and users must be held accountable for the outcomes and consequences of AI, especially in autonomous systems.
<b>Human Dignity</b>	<i>Karamah al-Insan</i>	AI applications must preserve the <b>dignity and respect</b> of all individuals. Lethal autonomous weapons and technologies that undermine human autonomy or privacy are problematic.
<b>Privacy</b>		Strong emphasis on protecting individuals' private lives and data (e.g., prohibition of spying or exposing faults). AI must have robust measures to <b>maintain confidentiality</b> .
<b>Wisdom/Prudence</b>	<i>Hikmah</i>	The implementation of AI should be accompanied by a <b>thorough risk assessment</b> of long-term consequences and should not be rushed if it may harm religious or social values.

# The importance of AI evaluation

- ✓ prevents harm
- ✓ ensures AI is trustworthy
- ✓ ensures AI aligns with Islamic ethics and national governance frameworks
- ✓ increases public confidence
- ✓ ensures real benefit to society
- ✓ avoids misuse in sensitive domains (healthcare, education, finance)

# Validation Workflow for Islamic AI Compliance

## Ensuring Ethical AI Deployment



## Adding Islamic Ethics as a Dimension in AI Evaluation

Evaluation Category	Metric	Explanation
Technical	Accuracy	Correctness of model predictions
	F1-score	Balanced measure for imbalanced classes
	RMSE	Error magnitude in regression
	Robustness	Stability under noise/drift
	Perplexity	Fluency of language model predictions
Safety	Toxicity Score	Detects harmful output
	Hallucination Rate	Incorrect facts
	Groundedness	Evidence-based answering
Ethics	Fairness	Checks discriminatory bias
	Transparency	Clarity of model decision-making
	Privacy	Protection of personal information
Islamic Ethics	Dignity	No humiliation or stereotyping
	Harm Prevention	Avoids physical/psychological/social harm
	Justice	Non-discriminatory outcomes
	Accountability	Human agency maintained
	Maslahah	Social benefit ensured
	Stewardship	Sustainable resource use

# THANKS



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*Integrity gives direction*

*Responsibility discipline*

*Adaptivity resilience*

*Empathy humanity*

*Evidence wisdom*