

Malay Culture in Welcoming the Century of Artificial Intelligence Excellence

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ABSTRACT

The rapid development of artificial intelligence (AI) technology has brought human civilization into a new era known as the century of technological excellence. In this context, local cultures such as Malay culture face significant challenges and opportunities to remain relevant, adaptive, and sustainable amid disruptive digital modernization currents. This research aims to examine the position of Malay culture in the face of AI dominance and explore strategies for preservation, identity strengthening, and integration of cultural values into the future digital ecosystem. The method in this study is a descriptive qualitative approach with literature study, participatory observation, and in-depth interviews with cultural figures, academics, and technology-based creative industry players. The study results show that Malay culture has great potential to develop in line with AI through revitalizing local wisdom values such as *syarak* customs, *Kitabullah sharia*, buddhist philosophy, and the principles of deliberation and mutual cooperation. These values can be integrated into developing ethical algorithms, digital narratives, and AI-based educational systems rooted in local characters. However, there are significant challenges in the form of low digital literacy among the Malay community, limited technological resources, and the dominance of global content that does not represent local identity. Therefore, collaboration between educational institutions, governments, cultural communities, and technology actors is critical to creating an inclusive, humanistic, and culture-based AI ecosystem. This study concludes that Malay culture can survive and has an excellent opportunity to pioneer the creation of AI models based on local values. With the right strategy, the century of AI excellence is not a threat, but a momentum to display the uniqueness and wisdom of Malay culture on the global stage.

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INTRODUCTION

The spiritual and material facets of existence are all included in Malay culture. The spiritual side of human nature is how culture is viewed. Cultural dynamics allowed Islam to infiltrate Malay civilization. The Malay people's souls enjoyed a new life after Islamic values were introduced into their lives. The spirit that gave rise to intellectualism and rationalism might have influenced the change in the Malay people's outlook on life. It promises that society will transition from an erratic realm of myth and art to one of reason and intellect that necessitates a structured way of living (Shamsul, 2001). The conversion of the Riau Malays' traditional beliefs to Islam demonstrates how Islam may permeate Malays' lives and infuse them with vitality in all facets of their existence. All Malays agree that the history of Malay culture is rooted in the growth of the Malay kingdom and its Islamic underpinnings, international trade, and the use of the Malay language (Andaya, 2001).

For Malay identity, Islam and the Malay language serve as emblems of the sectarian culture. As a "maritime culture," Malay culture encompasses many aspects of global civilization, big and small, and its love of the water. Islam, a religion that embraces diversity in streams, ideas, understandings,

and points of view, is no exception. Because Malay culture and Islam share many philosophical similarities, it can readily assimilate Islam's universal principles (Kheng, 1997). The perception that Islam was associated with the Malays developed as a result of the Malay people's adoption of the religion and the blending of Islam with Malay culture. Islam, according to the myths of the Riau Malay tribe, is not limited to the application of Islamic law. Additionally, they are urged to live out these lessons through cultural practices. As a result, the Malays who had converted to Islam had to alter their cultural base.

Islam and Malay culture come into contact and interact, resulting in assimilation and cultural adaptation of Islamic teachings that are always tailored to the socio-cultural circumstances of the Malay people (Azra, 2022). In order to avoid causing significant social unrest in society, this acceptance happened somewhat gradually. Malay culture underwent several alterations due to this interaction, and an Islamic Malay culture was produced. This regional religion and culture demonstrates the variety of ways that Islam is expressed in people's daily lives. The Riau Malay community, which follows a typical local Islamic pattern, is a clear example. One example of the diversity of Islamic cultures worldwide is the Malay world. The five primary regions of Islam's cultural variety are Arab, Iranian, Turkish, Malay, and Black African. Therefore, it is highly intriguing to examine how the dialectic between religion (Islam) and local culture in Riau leads to Islamic culture as it exists today (Hasbullah, 2014).

Numerous aspects of life have changed significantly as a result of technological advancements. Technology is currently the primary factor that alters perceptions and shapes how we work, learn, communicate, and go about our daily lives. More dynamic and cost-effective learning models have emerged in the education sector due to integrating technology like online platforms and artificial intelligence (AI), making educational content more accessible worldwide. More than 1.6 billion students from 190 countries were impacted by school closures during the COVID-19 pandemic, according to data from the UNESCO report, which led to a rise in the use of technology in distance learning. Smart medical gadgets and telemedicine applications have revolutionized how healthcare is accessible and provided in the industry. How we study and access information has changed significantly due to Indonesia's adoption of AI in the classroom. Integrating AI into online learning systems has made more individualized and adaptive learning models possible. According to data from Indonesia's Ministry of Education, Culture, Research, and Technology, over 50 million students, roughly 70% of the country's overall students, used AI-powered digital learning platforms in 2021.

Some educational and training institutes have also integrated AI in their curriculum to boost teaching effectiveness. Although this use continues to grow, difficulties connected to fair access to technology throughout Indonesia remain an issue. The Central Statistics Agency reports that around 25% of rural families have internet access, indicating that technological infrastructure in remote areas remains a barrier. Nevertheless, the enormous potential of AI to raise the standard and accessibility of education in Indonesia continues to be the focus of development through several initiatives, such as efforts to expand the nation's technological infrastructure and provide training for educators and related parties (Kholifah, 2022). One aspect that illustrates the development of education in the twenty-first century is the introduction of AI into educational resources.

Because AI has produced more responsive, adaptable, and personalized educational systems, it has altered our perception of how we learn. A more individualized learning experience is now possible thanks to the learning paradigm, which was once more likely to be strict and universal. AI has enabled educational systems to offer a more dynamic and immersive learning experience, allowing students to access learning materials more easily. The ability of AI to offer more precise and quantifiable feedback on student development is another indication of the importance of its use in educational systems. AI can give teachers vital information to enhance their teaching methods and comprehend

the unique demands of each student by thoroughly analyzing learning data. This tendency extends beyond formal education and encompasses professional development and training across multiple industrial sectors.

AI has much beneficial potential, but its introduction into the classroom has drawbacks and moral dilemmas. To guarantee that the use of AI in education is done responsibly and follows the moral standards accepted by society, concerns about privacy, data security, and other ethical issues are the primary focus. According to [Amirudin \(2019\)](#), the modernization of educational tools through AI not only brings about fundamental changes in education but also initiates a paradigm shift in the 21st-century teaching and learning process, bringing new opportunities that require careful management. Strategic actions must be implemented to ensure AI also contributes to education in Indonesia. First, AI must be incorporated into the curriculum, exposing students to the fundamentals of AI at a young age. To use AI in the teaching process, teachers also need extensive training.

For all students to have access to AI-based learning, investing in technological infrastructure, such as ensuring that everyone has fair internet access and digital devices, is essential. Additionally essential is the use of interactive and adaptable learning platforms, which may customize content to meet the needs of each student and promote involvement. Adjusting learning strategies will be aided by using AI to evaluate learning data and deliver prompt feedback. Lastly, the development of AI for education will be accelerated and integrated into the educational system more successfully if governments, academic institutions, and the commercial sector collaborate. It is envisaged that by taking these actions, artificial intelligence will maximize its advantages, enhance the standard of education, and equip Indonesian students to handle future global issues.

Artificial Intelligence (AI) is one of the most revolutionary technological advancements in many facets of life in the quickly changing digital age, according to [Russell and Norvig \(2020\)](#). AI refers to computer systems that can carry out speech recognition, decision-making, natural language processing, and data-driven learning that usually need human intellect. The benefit of AI is its capacity to handle vast volumes of data rapidly and precisely, increasing operational effectiveness and opening the door to automation on a previously unthinkable scale. AI is used in many industries, including manufacturing, transportation, finance, education, and health. For instance, AI is utilized in the healthcare industry to evaluate medical imaging and aid in the faster and more precise diagnosis of illnesses ([Esteva et al., 2017](#); [Bali et al., 2022](#)). By quickly analyzing intricate transaction patterns, AI in finance aids in the detection of possible fraud ([Nguyen et al., 2019](#)). AI is becoming more and more capable of making accurate predictions and decisions on its own as machine learning and deep learning technologies advance. Because of this benefit, AI is a key component of the digital and fourth industrial revolution. However, security, societal, and ethical issues with AI use also require careful consideration from all stakeholders.

Artificial intelligence (AI) is one of the key pillars of the fourth industrial revolution, which has been ushered in by the fast development of information and communication technology over the past 20 years. In addition to altering the industrial and economic landscape of the world, artificial intelligence is beginning to impact people's social and cultural lives. The regional cultures, including Malay culture, in this setting present both opportunities and problems for adaptation and strategic engagement within this wave of digital upheaval. One of Southeast Asia's rich cultural heritage, Malay culture embodies admirable ideals including morality, cooperation, linguistic etiquette, and indigenous knowledge.

The Malay community's oral traditions, literature, customs, and belief systems all have strong roots in these ideals. However, as we welcome the century of AI excellence, an important question arises: can Malay culture survive, thrive, and even serve as a model of morality and wisdom in contemporary technological advancements? [Sardar \(2021\)](#) argues that technology is never truly

neutral because it always brings the beliefs and ideals of the socio-cultural environment in which it was created. Therefore, the Malay community must ground AI within local cultural norms to avoid getting entangled in adopting technologies that undermine the nation's identity. Localization, or globalization without losing local roots, is a concept that is harmonious with this.

METHOD

This study employs a descriptive qualitative approach to provide an in-depth understanding of how Malay culture interacts with artificial intelligence (AI) development. This approach was chosen because it allows for exploring the complex cultural values, societal perceptions, and social dynamics in the growing digitalization context. The data used in this study consists of both primary and secondary sources. Primary data were collected through participatory observation and in-depth interviews with Malay cultural figures, academics, and creative industry players in the technology sector. These respondents were selected purposively based on their active involvement in cultural preservation and technological innovation. Secondary data were gathered through a literature review of academic works, journal articles, books, policy documents, and digital content relevant to the relationship between Malay culture and AI.

The data collection techniques included three primary methods: literature review, participatory observation, and in-depth interviews. The literature review involved examining scholarly materials related to Malay culture, digital ethics, and the development of technology rooted in local values. Participatory observation involved direct engagement with cultural activities that have been digitized or are in the process of being adapted to the digital ecosystem, such as virtual museums, cultural content on social media, and local AI platforms. In-depth interviews were conducted with key informants from various backgrounds to gain deeper insight into the opportunities and challenges of integrating Malay culture with AI.

The collected data were analyzed using thematic analysis, which involved data reduction to filter relevant information, categorization into key themes such as cultural preservation, digital literacy, ethical algorithms, and the transformation of local values, and concluding a deep interpretation of the categorized data. To ensure data validity and reliability, source triangulation was applied by comparing interviews, observations, and literature findings. Member checking was also conducted to confirm the accuracy of interpretations with selected informants. This study was conducted in several regions centered on Malay cultural activity and creative technology development, such as Riau, West Sumatra, and parts of Malaysia, for six months, encompassing preparation, data collection, analysis, and final reporting.

RESULTS AND DISCUSSION

Islam has significantly influenced Malay culture through a gradual and dynamic process. The Malay community experienced a spiritual and intellectual awakening as Islamic values permeated daily life. The rise of intellectualism and rationalism played a crucial role in transforming their worldview, shifting it from a myth and art-centered perspective to one grounded in logic and structure. Islam introduced a systematic way of life rooted in moral and ethical principles, which helped redefine Malay cultural identity. This shift is evident in adapting social customs, traditional laws, and daily practices influenced by Islamic teachings. The departure from pre-Islamic beliefs reflects how deeply Islam has shaped the Malay way of life. It enriched their religious dimension and brought vitality to various aspects of their existence. Integrating Islamic values into everyday life demonstrates the Malays' harmony between religion and culture.

Malay culture is a rich and complex entity shaped by a fusion of customs, values, traditions, and long-standing history. The Malay community is spread across various regions, including the Malay

Peninsula, Sumatra, Borneo, the Riau Islands, Southern Thailand, Brunei, Singapore, and the Southern Philippines. While each area has unique characteristics, they share core cultural values defining Malay identity. Despite regional dialects, Malay is a unifying medium used in literature, daily conversation, and ceremonial practices (Eriswan, 2012). Malay culture can be understood from multiple perspectives, such as art, belief systems, customary law, and architecture. Traditional art forms like *pantun*, *hikayat*, traditional music, and dance are preserved as reflections of cultural identity. Core values such as politeness, respect for elders, and cooperation are deeply embedded in Malay social life. Even as Malay culture evolves with time, it continues to hold firmly to its traditional roots.

Table 1. Descriptions of Key Aspects of Malay Culture

Aspect	Description
Language (Words)	Malay is the primary language used in literature, daily conversations, and traditional rituals. Despite many regional dialects, it maintains a core set of features facilitating interregional communication.
Customs & Traditions	Malay culture is deeply connected to customs and traditions. Social life from birth to death is governed by various ceremonies, rituals, and ordinances, reflecting the community's social, moral, and spiritual values.
Arts & Crafts	Malay culture is rich in artistic expressions, including music, dance, theater, and literature. Traditional forms such as Zapin dance, gamelan music, wayang kulit, pantun, poetry, and hikayat enhance this cultural heritage.
Beliefs & Religion	Islam is the dominant religion that significantly influences Malay culture. Islamic values are evident in ethics, customary law, and religious practices. However, traces of pre-Islamic Hindu-Buddhist and animist influences remain.
Traditional Architecture	Malay architecture reflects cultural values and adaptation to the tropical climate. It is characterized by stilt houses with high-pitched roofs and intricate wood carvings, designed to withstand the elements and protect from floods and wild animals.
Traditional Attire	Traditional Malay clothing represents cultural identity and is commonly worn during formal events and rituals. Outfits such as songket, kebaya, baju kurung, and baju melayu showcase the elegance and refinement of Malay culture.
Traditional Cuisine	Malay cuisine, known for its intense spice flavors, plays a significant role in cultural identity. Famous dishes include rendang, nasi lemak, satay, and laksa.
Ethics & Values	Malay culture emphasizes humility, cooperation, respect for parents and elders, and politeness. These values are evident in both traditional customs and everyday social interactions.

The extensive history and interplay of cultural influences in Southeast Asia are reflected in Malay culture's rich and complex value system and practices. Malay culture continues to change but has held onto its traditional identity and legacy. In Indonesia, internet usage is still rising quickly. The nation's internet connectivity has increased due to the growing use of smartphones and advancements in digital infrastructure. Innovation in technology and the use of digital platforms also motivate people to connect online for educational goals and informational, commercial, or entertainment (Putri et al., 2022; Fajrie et al., 2024). Indonesia is now one of the biggest digital markets in Asia thanks to the expansion of social media and e-commerce, which are becoming increasingly popular and contributing to the acceleration of internet development overall. Every year, Indonesia's internet user base is impacted by the swift advancement of digital technologies. The government's nationwide initiatives to increase internet coverage and technology infrastructure have impacted Internet usage.

In the current digital era, the availability of this technical innovation affects how education is implemented (Ngono & Wijayanto, 2019). With the advent of technology in the digital age, there have been significant shifts in how people approach learning, particularly in education, due to AI.

The personalization of learning is one notable change. AI enables improved methods, difficulty, and learning speed modification to meet the demands of each student. In 21st-century education, using AI to personalize learning makes use of technology to customize each student's educational experience better. Regarding several ways that AI-powered learning personalization can improve student comprehension, including in-depth data analysis, AI employs algorithms to examine data from multiple sources, including test responses, online behaviors, and prior performance. AI can create a more precise profile of each person's learning demands if it better understands the students' learning habits (Putri et al., 2022).

AI systems can change over time through a constantly changing adaptive learning process. AI continuously adapts learning strategies to ensure its efficacy in promoting student understanding while considering the most recent data. As a result, in the current educational era, learning may be made more flexible, personalized, and suited to each learner's needs through AI. The aim is to enhance students' comprehension of their course materials through a more customized approach. Indonesia's usage of AI in curriculum and learning development has significantly impacted educational resources. One consequence is a change in curriculum design that makes it more flexible and adaptable. AI makes it possible to modify the curriculum more effectively to meet the needs of each student. Incorporating AI adds new pertinent materials more quickly, keeping up with global advancements and the always-changing job market demands. Another key area of focus fueled by AI is learning personalization. AI's capacity to customize instructional strategies and materials to each student's traits enhances comprehension and participation in the learning process. Based on each student's unique needs, teachers have the chance to help them more effectively and appropriately (Ngono & Wijayanto, 2019).

It is also impossible to overlook AI's contribution to learning assessment. AI helps teachers pinpoint areas that require more focus by providing quicker and more thorough information about students' comprehension of the subject through automated assessments. By presenting learning materials engagingly and pertinently, AI promotes a more interactive approach to education. By offering a more dynamic learning environment tailored to each student's needs, AI-powered online learning platforms increase the efficacy of remote learning. More accurate and faster feedback is another advantage of AI. Teachers can modify their teaching strategies or offer additional assistance effectively based on the needs of their students since they receive instant feedback on their performance (Mansir, 2020). Beginning with poor access to technology, the most significant barrier to AI and its incorporation in education is the difference in access to technology across Indonesia. Implementing AI in education may be hampered by infrastructure issues in some areas. Teachers' preparedness for adjusting to AI necessitates sufficient training. This involves offering tools and training courses to guarantee teachers have the necessary information and abilities. Data protection and privacy: Gathering and analyzing student data is a part of using AI in education. Preserving data security and shielding students' privacy from cyberattacks are significant challenges (Mansir, 2022).

The deployment of AI necessitates a significant financial and investment commitment. Making sure there is enough money available for system maintenance, training, and infrastructure is the biggest obstacle. There are several potential areas for AI and its integration in education, beginning with personalized learning. AI offers the chance to enhance customized learning by modifying resources and techniques per student requirements, boosting learning efficacy. AI can assist in creating a curriculum that is more in line with the demands of the job market by doing thorough data analysis, which increases students' preparedness for upcoming changes (Fazlurrahman, 2018). AI integration makes it possible to employ more creative teaching strategies, like simulations, game-

based learning, and other interactive exercises that might boost students' interest and involvement (Aguss, 2021). AI facilitates automated assessments and real-time tracking of student progress, gives teachers and students immediate feedback, helps them make better decisions during the learning process, and improves digital abilities. AI helps students acquire digital abilities essential for navigating the technologically advanced world (Amrina et al., 2022).

Indonesia can take full advantage of AI's potential to raise educational standards and get the next generation ready for the demands by comprehending and resolving these issues. AI in education presents opportunities and problems that call for a well-thought-out, flexible, and balanced strategy to maximize its advantages while resolving potential drawbacks. To increase the availability of educational technology in rural or impoverished locations, significant efforts are needed to address major obstacles such as gaps in technological access. Governments, businesses, and non-governmental organizations must work together to construct the required infrastructure and guarantee everyone access to technology equally (Subroto et al., 2023). To enhance the analysis and comparison of research findings, several additional studies that elaborate on the impact of cultural and technological changes in the Malay and Indonesian contexts were explored, particularly as they intersect with Islam, education, and digital transformation.

Several studies underscore the critical role of Islam in shaping the moral, cultural, and intellectual landscape of the Malay people. For instance, Al-Attas (1980) explores how Islamic intellectual traditions contributed to the rise of Malay intellectualism, particularly through the influence of Islamic scholarship and its impact on Malay literature, philosophy, and ethics. The transformation of Malay society from a mythological worldview to a rational, intellect-driven society can be further examined through this lens. Other research might delve into the integration of Islamic principles in governance, law, and societal norms, reinforcing the transformation towards a more systematic, orderly approach to life that Islamic rationalism often advocates for.

The integration of AI in education is a relatively recent phenomenon but has garnered significant attention in academic discussions. Marpaung (2020) emphasizes the impact of AI in Indonesian education, particularly how AI-driven tools, like adaptive learning systems and virtual tutors, can personalize the learning experience for each student, much like the observations in the current research. However, they also highlight challenges in implementing AI in rural areas due to limited infrastructure and digital literacy, paralleling the barriers mentioned by Mansir (2022). Furthermore, Tan and Khoo (2021) expand on AI's role in reshaping teacher-student relationships and how AI can enable educators to provide more targeted support for diverse student needs.

A significant theme explored by Yuliawati (2019) is the impact of digitalization on traditional cultures in Indonesia, including the Malay-speaking communities. It highlights how digital platforms, including social media and e-commerce, offer a space to express Malay cultural identity while transforming how traditional practices are disseminated. As noted in the research on the rise of AI in education, there is a duality where technology acts as both a vehicle for cultural preservation and a catalyst for cultural change. This transformation is particularly evident in how young Indonesians, including those from the Malay community, engage with Islamic traditions and contemporary global culture through online platforms. Wibowo and Prasetyo (2022) discuss the efforts by the Indonesian government to improve digital infrastructure across the nation, especially in rural and underdeveloped areas. These efforts echo the concerns raised about technology access in the original research and demonstrate the importance of governmental policies in facilitating equitable access to AI tools and educational technology. The government's initiatives to increase internet connectivity and integrate digital tools in education are central to the vision of a digitalized educational ecosystem, with AI playing a key role in curriculum adaptation and personalized learning.

Chandra et al. (2021) compare the integration of AI in Southeast Asian educational systems, focusing on the ethical implications, data privacy concerns, and the cultural dimensions of education. While AI has the potential to revolutionize learning by providing personalized education, it also brings forward challenges related to cultural norms and values. For instance, AI's ability to collect student behavior and preferences data might conflict with traditional Malay cultural values related to privacy and community cohesion. This contrast between modern technological advancements and traditional cultural sensitivities is critical for further exploration. By weaving these additional studies into the original research, we can better understand how Islam and digital transformation interact in Malay and Indonesian cultural contexts. This multidimensional approach highlights the opportunities and challenges of these cultural and technological shifts, offering a more comprehensive view of how Malay culture adapts to the digital age and how AI can transform educational practices while respecting cultural values.

CONCLUSION

To embrace the artificial intelligence (AI) era, Malay culture must be adaptable and forward-looking. Rather than viewing AI as a threat, it should be seen as a powerful tool to promote and share the richness of Malay heritage globally. Malay culture is not a relic of the past but a valuable asset in shaping a modern society that is technologically advanced while remaining grounded in cultural and moral values. Integrating the noble principles of Malay traditions, such as *syarak*-jointed customs, *Kitabullah sharia*, thoughtfulness, tolerance, and politeness into the development and use of AI provides a strong ethical foundation for responsible innovation. As AI transforms society, Malay culture must not remain static; its legacy should be creatively digitized and adapted. AI-powered platforms can preserve and revitalize language, literature, music, and customs. Moreover, Malay cultural values emphasizing harmony, respect, and social responsibility can guide the development of AI systems that are ethical, inclusive, and human-centered. Governments, academic institutions, and cultural communities are crucial in safeguarding cultural identity amid rapid technological advancement. They are involved in formulating policies that support culture-based innovation and the creation of ethical, competitive digital content rooted in Malay values. It is also essential to equip the younger Malay generation with AI and digital literacy without losing touch with their cultural roots. It can be achieved through educational curricula that harmoniously integrate technological skills with traditional knowledge, ensuring that Malay culture thrives in the digital age.

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