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People Perception about Using Metaverse in their Life an Islamic View (UAE Case)

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Abstract

The metaverse, a rapidly evolving digital space blending augmented and virtual reality with blockchain and AI, offers immersive experiences and economic opportunities. The UAE, known for its strong emphasis on technological advancement, is at the forefront of integrating these technologies through initiatives like "Smart Dubai" and "UAE Vision 2021." This study explores the implications of the metaverse in the UAE, particularly within the context of Islamic values. It examines the foundational technologies—VR, AR, AI, and blockchain—and their applications in sectors like tourism, education, healthcare, and government services. Additionally, the research addresses cultural and religious considerations, highlighting the need for Shariah-compliant practices and ethical use to align with Islamic principles. Challenges such as privacy, regulatory concerns, and cultural resistance are discussed alongside strategies for overcoming these barriers while respecting local values. The study aims to provide insights into how the UAE can leverage the metaverse for innovation while balancing technological growth with cultural preservation, offering a roadmap for integrating the metaverse into the UAE's digital ecosystem in a manner consistent with its cultural and religious context.

Keywords: Metaverse, UAE, Islamic Perspective, Virtual Reality, Augmented Reality, Ethical Use

Introduction

The meta-verse is an emerging digital universe, a collective virtual shared space created by the convergence of virtually enhanced physical reality and persistent virtual reality. It integrates technologies such as Virtual Reality (VR), Augmented Reality (AR), block-chain, and artificial intelligence (AI) to create immersive experiences, virtual environments, and digital economies. The meta-verse allows users to interact with each other and digital objects in ways that blend reality with digital experiences, spanning a wide range of applications, from

social interaction and entertainment to education and commerce (Jeřábek et al., 2015; Verkhova et al., 2019; Makhat et al., 2021)

The United Arab Emirates (UAE) has become one of the leading nations in adopting cutting-edge technologies. With a forward-thinking approach and a strategic focus on innovation, the UAE is investing heavily in technologies such as 5G, artificial intelligence (AI), block-chain, and immersive environments. Initiatives like the "UAE Vision 2021" and "Smart Dubai" aim to position the UAE as a global leader in digital transformation. These technological advancements provide the perfect foundation for the growth and implementation of the meta-verse in the country (Alshehhi, 2023; Alzarooni, 2024; Alhammadi, 2024). The UAE government has been actively involved in creating a regulatory framework for emerging technologies, including virtual currencies and digital spaces, ensuring that these technologies are embraced while maintaining the nation's cultural and religious values. The UAE is thus a unique case study for understanding the balance between technological growth and cultural preservation (Shadab, 2024; Williams et al., 2022).

This research aims to explore the technological, cultural, and ethical implications of the meta-verse in the UAE, particularly from an Islamic perspective. The objectives of the research are:

1. To analyze the technological foundations of the meta-verse, including key innovations such as VR, AR, AI, and block-chain, and their integration into the UAE's digital ecosystem.
2. To evaluate the applications of the meta-verse in various sectors such as tourism, healthcare, education, government services, and real estate within the context of the UAE.
3. To assess the Islamic perspective on the meta-verse, including its ethical use, compliance with Shariah law, and the potential impact on social values and morality.
4. To examine the regulatory and legal considerations in the UAE regarding the meta-verse, with a focus on intellectual property, privacy, security, and cultural sensitivity.
5. To identify the challenges faced by the UAE in adopting the metaverse and propose strategies for overcoming these barriers while respecting Islamic principles.

This study will provide a comprehensive understanding of the metaverse's role in the UAE's technological landscape, its alignment with Islamic values, and the challenges and opportunities it presents for the country's future.

Technological Foundations in the UAE with an Islamic Perspective

VR and AR Technologies

The UAE has been leveraging Virtual Reality (VR) and Augmented Reality (AR) for multiple sectors, including tourism, healthcare, education, and real estate (Ahmed et al., 2023a; Alsharif et al., 2023). These technologies enable immersive experiences, making remote interactions more engaging. For example, virtual tours of the Sheikh Zayed Grand Mosque and Burj Khalifa offer global access to these landmark sites, showcasing the UAE's rich cultural heritage. From an Islamic perspective, VR and AR content should uphold values of modesty, integrity, and respect. These immersive environments must be mindful of cultural and religious sensitivities, ensuring that they do not promote actions or behaviors that contradict Islamic ethics (Yang et al., 2022; Xiong et al., 2021). The application of VR and AR in tourism not only promotes cultural exchange but also serves as a tool for educational purposes, providing insights into the UAE's history and architecture (Yang et al., 2022; Xiong et al., 2021).

Blockchain and Cryptocurrency

Blockchain is the backbone of secure digital transactions, and cryptocurrencies are the medium used for virtual exchanges. The UAE has adopted blockchain technology in various fields, such as the Dubai Blockchain Strategy, aimed at digitizing government services. However, the Islamic view on cryptocurrencies raises concerns due to their speculative nature, which is incompatible with Islamic finance principles that prohibit interest (riba) and uncertainty (gharar). To address this, the UAE is working on developing Sharia-compliant financial models that ensure cryptocurrencies used within the metaverse are aligned with Islamic financial principles, discouraging harmful practices such as gambling or excessive speculation (Khan et al., 2022; Williams et al., 2022).

Artificial Intelligence (AI)

AI plays a significant role in enhancing experiences in the metaverse, from creating personalized avatars to moderating virtual spaces. The UAE has invested heavily in AI, with national strategies to integrate AI into education, healthcare, transportation, and public services (Ayling & Chapman, 2021). From an Islamic perspective, AI systems must prioritize fairness, transparency, and the protection of user privacy. Ethical concerns, such as bias or the misuse of AI for exploitative purposes, must be avoided to ensure that AI remains in line with Islamic values (Al-Ramlawi, 2023). It can use AI and neuromarketing tools to study consumer reactions toward the environment stimuli (Ahmed et al., 2023a; Ahmed et al., 2023b; Ahmed & Salmi, 2024; Alsharif & Khraiwish, 2024).

Internet Infrastructure and 5G Connectivity

For the metaverse to function seamlessly, high-speed internet infrastructure is critical. The UAE has made significant strides in implementing 5G technology, providing the necessary bandwidth for virtual and augmented experiences. However, it is important to consider Islamic principles of accessibility and equality in the deployment of these technologies, ensuring that all segments of society have access to these innovations (Wang, 2021; Wang & Zhang, 2021).

Applications of the Metaverse in the UAE

Entertainment and Tourism

In the UAE, the metaverse has been utilized for virtual tourism experiences, enabling global audiences to explore cultural sites and attractions. The UAE's strategy to integrate VR and AR in the tourism sector promotes cultural heritage and Islamic values by showcasing traditional Islamic architecture and landmarks while preserving the cultural and moral integrity of the experiences (Samaddar & Mondal, 2023; Omran, 2023; Alkhaliel, 2022).

Education and Training

The educational sector in the UAE is exploring the potential of the metaverse for remote learning, creating immersive environments for virtual classrooms and skill development. Virtual simulations, especially in fields like medicine and engineering, provide practical experience without the risk associated with real-world training. In Islamic terms, these advancements enhance the ability to seek knowledge (ilm), which is highly encouraged (Alsharari, 2018; Yasin et al., 2023).

Healthcare Innovations

The UAE has used the metaverse to innovate healthcare by introducing virtual healthcare consultations, telemedicine, and even medical training through VR. These applications improve healthcare access and delivery, particularly in remote areas (Chiang et al., 2022; Mistry, 2023; Pawassar & Tiberius, 2021). From an Islamic perspective, these innovations align with the value of preserving life (hifz al-nafs) and reducing harm (darar).

Real Estate and Smart Cities

Real estate in the UAE has embraced the metaverse by allowing potential buyers to explore virtual property listings. The government's smart city initiatives, especially in Dubai, leverage virtual simulations for urban planning and resource management (Ante et al., 2023; Hutson et al., 2023; Azmi et al., 2023). This aligns with the Islamic principles of sustainability and efficient use of resources (Azmi et al., 2023; Farhi et al., 2023).

Government Services

The UAE government is incorporating the metaverse into public services, allowing citizens to interact with governmental processes virtually. This enhances the efficiency and accessibility of government services, aligning with the Islamic principles of justice, equity, and the welfare of society (Khalid & Sarker, 2019; Aloqaily et al., 2023).

Islamic Perspectives on the Metaverse

Shariah Compliance and Ethical Use

In Islam, all actions must align with Shariah law, which means that the metaverse must be used ethically. For example, gambling, pornography, and unethical practices are prohibited. Shariah-compliant use of virtual environments includes fostering learning, providing charitable services, and creating ethical business ventures (Bakhrudin, 2023; Ali, 2019).

Impact on Values and Morality

The metaverse has the potential to reshape values and morality by creating virtual worlds that might challenge traditional Islamic values, especially around modesty and behavior. However, these spaces can also be leveraged for positive influences, such as teaching Islamic values, facilitating charity, and promoting social justice (Hasan, 2023).

Digital Identity and Accountability

Islam places great emphasis on accountability for one's actions. Users in the metaverse must maintain integrity and honesty in their digital identities, ensuring they act in accordance with Islamic ethics in both virtual and real-world settings. Accountability extends to their online actions, interactions, and digital content creation (Prativi et al., 2021; Mutmainah, 2023).

Privacy and Security Concerns

Islam stresses the protection of privacy and personal information, which extends to the virtual realm. Users must ensure that their data is protected and that their interactions in the metaverse are not used for unethical purposes, including exploitation or data theft. Consent and transparency are essential in line with Islamic ethics (Ebrahimi & Yusoff, 2017; Liestyowati, 2024).

Legal and Ethical Considerations in the UAE

Regulatory Framework

The UAE has developed a regulatory framework to support the growth of digital technologies, including the metaverse. The Dubai Virtual Assets Regulatory Authority (VARA) is one example of the government's commitment to overseeing digital spaces. This framework ensures that virtual interactions and transactions comply with both international standards and local values (Maknouzi & Sadok, 2021; Gibbs, 2020).

Intellectual Property Rights

With the growth of digital assets and content in the metaverse, intellectual property (IP) laws play a crucial role in protecting the rights of creators. The UAE has adopted its IP laws to address the complexities of virtual goods and services, ensuring that creators are compensated for their work while protecting against unauthorized use or piracy (Zulfikri & Zulkarnaini, 2022).

Freedom of Expression and Cultural Values

The metaverse presents opportunities for free expression but also poses challenges related to cultural and religious values. In the UAE, freedom of expression is balanced with the need to respect local customs and Islamic principles, ensuring that digital content remains appropriate for the nation's cultural landscape (Dayoub, 2024). The integration of the metaverse into various sectors, including tourism and education, highlights its potential to enhance user engagement while also raising questions about cultural appropriateness (Jim, 2023).

Challenges and Limitations in the UAE

Technological Barriers

Despite significant advancements, the UAE faces challenges in ensuring universal access to the technologies required for the metaverse. Issues like digital literacy, infrastructure gaps in remote areas, and access to devices remain barriers to full participation (Muammar et al., 2022; Alaleeli & Alnajjar, 2020).

Cultural Resistance

While the UAE has embraced technological innovations, cultural resistance to the metaverse, especially in the context of its ethical implications, may arise. The Islamic community may have concerns about the impact of virtual environments on traditional family values and social structures (Bibri, 2022).

Security and Privacy Concerns

The metaverse poses new challenges related to cybersecurity and data privacy. The UAE government must ensure that its citizens' data is protected and that there are systems in place to prevent fraud, identity theft, and other forms of virtual crime (Sánchez-Adame, 2023; Shi, 2023; Tukur, 2023).

Regulatory Challenges

Creating effective regulatory policies for the metaverse presents unique challenges, particularly in terms of international cooperation, digital property rights, and ethical standards. The UAE's regulatory framework must remain flexible enough to accommodate the fast-paced growth of the digital world while respecting Islamic values (Shwedeh, 2024).

Future Prospects for the UAE

Vision 2030 and Metaverse

The UAE's Vision 2030 includes a focus on digital innovation and creating a knowledge-based economy. The metaverse will play a significant role in this vision by fostering new industries, creating job opportunities, and enhancing the country's status as a global technological leader.

The Role of Emerging Technologies

The metaverse is just one of many emerging technologies that the UAE is investing in, including AI, IoT, and blockchain. These technologies will likely complement one another, creating an interconnected digital ecosystem that can revolutionize multiple sectors.

Balancing Innovation with Cultural Values

While embracing technological advancements, the UAE must continue to balance innovation with its cultural and religious values. Ensuring that these technologies contribute positively to society without compromising Islamic principles will be key to the successful integration of the metaverse.

Conclusion and Recommendations

Key Findings

The UAE is making significant strides in integrating the metaverse into its economy and society, with applications in tourism, education, healthcare, and government services. However, ethical considerations, especially from an Islamic perspective, will play a crucial role in ensuring the responsible use of these technologies.

Recommendations for the UAE

1. Continue to develop Shariah-compliant regulations for digital assets and cryptocurrencies in the metaverse.
2. Focus on digital literacy and bridging technological gaps to ensure equitable access.
3. Prioritize the development of ethical guidelines for AI and VR technologies.
4. Foster innovation while respecting Islamic values and cultural norms.

Final Thoughts

The metaverse holds immense potential to enhance various aspects of life in the UAE. By aligning technological advancements with Islamic ethics and values, the UAE can serve as a model for other nations seeking to integrate the metaverse in a responsible and culturally sensitive manner.

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