Multimedia Technology in Education: Islamic Perspective

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Abstract
The 21st century has witnessed the integration of multimedia technology in education, a vital transition to keep education relevant and aligned with contemporary progress. This study seeks to identify the various forms and applications of multimedia technology in education, with a focus on its practice from an Islamic perspective and its implications in the modern educational landscape. Employing a qualitative research approach involving extensive literature review and meticulous document analysis, this study underscores the remarkable significance of multimedia technology. It emerges as a compelling and interactive alternative to conventional lecture-based instruction, reshaping the educational experience for learners in the modern age.
Keywords: Technology, Multimedia, Education, Islamic Perspective

Introduction
Education plays a pivotal role in shaping a civilization, fostering human capital development with traits such as a strong identity, skills, noble character, knowledge, and adaptability in the globalized 21st century (Baharom & Johdi, 2009). Islam, too, underscores the importance of education in cultivating individuals who believe in the One God and exhibit noble character (Achmad & Ferdinal, 2021).
The evolving educational landscape in the 21st century responds to contemporary needs, particularly the demand for a skilled workforce in industrial and technological sectors in line with global economic growth (Muhali, 2019). In Malaysia, the education system prioritizes equipping citizens with 21st century skills like critical thinking, creativity, and personal development to meet economic challenges. These skills encompass critical thinking, communication, collaboration, and creativity, as highlighted by the National Educators Association (NEA) in the United States. The Ministry of Education in Malaysia further

underscores the importance of learning and innovation skills, media and information technology skills, and life and career skills (Mistirine & Al-Muz-zammil, 2018; Norazlin et al., 2019).

In this context, the learning process demands students to be active, intelligent, creative, and innovative. Consequently, integrating information and communication technology (ICT) elements into education is crucial to capture students' interest, boost motivation, and facilitate better comprehension of subjects, especially in a world inundated with evolving information technology. Yet, some educators continue to employ traditional lecture-based methods, potentially hindering the cognitive development of tech-savvy students. To bridge this gap, teachers must blend pedagogy and technology to deliver innovative teaching and learning experiences (Shamimi et al., 2021).

Amidst globalization, Islam remains aligned with the development of science and encourages its pursuit based on the Quran as a guiding light. Reason and research, driven by technology, have the potential to illuminate our understanding and lead to discoveries that evoke admiration for the greatness of Allah SWT. Islam underscores the importance of values, ethics, and morals in the application of knowledge. Neglecting these foundations can lead to purposelessness and moral decay. Hence, in the realm of education, technology becomes a valuable tool to facilitate efficient and systematic learning (Akhmad, 2018).

Multimedia Technology in Education

Multimedia, a technological form (Gunawardhana & Palaniappan, 2016), amalgamates various media elements, including text, graphics, images, audio, video, and animation, into a single presentation or communication to convey information and entertainment. This convergence of media aims to create engaging and interactive experiences for the audience. Interactive multimedia empowers users to control the flow of information, enhancing their understanding and retention of lessons (Mohid et al., 2018).

Multimedia technology encompasses elements such as text, images, graphics, audio, video, and animation. Texts, images, and graphics are static elements, while audio, video, and animations introduce dynamic aspects to multimedia applications (Mukherjee, 2018).

The integration of multimedia technology has profoundly transformed education, offering innovative avenues to engage students and augment the learning process. Notably, video-based learning, facilitated by multimedia technology, has gained momentum in online and blended learning at universities and colleges. Numerous studies indicate that students tend to learn better with multimedia instructional materials than text-only resources (Mayer et al., 2001). Educators and researchers have made strides in designing effective multimedia applications to optimize educational outcomes (Gunawardhana & Palaniappan, 2016).

Multimedia learning involves the use of various instructional messages, incorporating elements beyond mere words, such as pictures, animations, narration, and videos, to promote learning (Mayer, 2002). Multimedia's increasing integration into online and blended learning is driven by its potential benefits. It is regarded as a powerful tool for knowledge dissemination, especially in teaching and learning (Zulazizi, 2020). Effectiveness in teaching techniques based on the concept of "Beyond Schools and Beyond Borders" is imperative, encouraging teachers to strive for excellence and greater success in their teaching endeavors (Nawi et al., 2020).

The objective of incorporating multimedia into education is not to replace teachers but to enhance the teaching and learning process. Multimedia tools, including well-designed programs, mimic the teacher's role by incorporating educational elements into the cognitive

process. This active learning process facilitated by multimedia programs ensures that students are not passively reading but actively practicing and engaging with the subject matter (Gunawardhana & Palaniappan, 2016).

Incorporating multimedia technology in education brings several advantages.

- Interactive Learning Materials

Educators can create interactive learning materials, including e-books, digital textbooks, and educational apps, enriched with videos, animations, quizzes, and interactive elements, making learning more dynamic and engaging (Zulfiani & Sugiyono, 2020; Djamas et al., 2018).

- Online Learning Platforms:

Multimedia technology has given rise to online learning platforms offering a diverse range of multimedia content, such as video lectures, interactive exercises, and simulations, granting learners the flexibility to study at their own pace and access educational resources remotely (Djamas et al., 2018).

- Educational Videos and Animations

Video-based learning is gaining popularity due to multimedia technology. Educational videos and animations simplify complex topics, making them more comprehensible and memorable for students (Abdulrahaman et al., 2020; Zulfiani & Sugiyono, 2020).

- Gamification of Learning:

Gamification employs multimedia elements to transform learning into an engaging, game-like experience, incorporating game mechanics, rewards, and challenges to motivate students and foster a sense of achievement (Djamas et al., 2018).

By leveraging multimedia technology, educators can cater to diverse learning styles, promote active learning, and provide more personalized, interactive educational experiences for their students. As technology continues to evolve, multimedia in education will continue to play a pivotal role in shaping the future of learning.

The Practice of Multimedia Technology in an Islamic Perspective

Islam promotes the pursuit of knowledge and emphasizes the role of technology in education. It sees technology as a catalyst for reform and innovation in academia, curriculum management, human resources, facilities, and work culture, ensuring that Islamic education remains progressive and aligned with contemporary trends (Akhmad, 2018).

The early Islamic civilization was marked by the use of technology, a continuous process that contributed to its success. Muslims pioneered multimedia elements for information dissemination, beginning with the auditory transmission medium, such as the call to prayer in the first year of the Hijrah in Medina. During that time, the community primarily used voice transmission, tambourines, and inscriptions on public surfaces like walls, stones, and trees to convey information (Zulazizi, 2020). Historical accounts of Islamic da'wah by Prophet Muhammad SAW illustrate that education used technology, initially focusing on tradition and memorization, eventually evolving during the caliphate era.

Several factors drove scientific advancement in classical Islam, including the motivation provided by Islam, language that facilitated communication, wise leadership fostering scientific development, the establishment of educational institutions like libraries, and the scientists' inclination toward research and experimentation. The interplay between Islam and science endures, with science and technology firmly entrenched in contemporary society. In Islam, knowledge derives from two sources: revelation (al-'ulum al-naqliyyah) and reason (al-'ulum al-'aqliyyah). Revelation, revealed through the Prophet SAW and transmitted through

generations, and reason, a gift from God, combine to form the basis of knowledge (Zulazizi, 2020).

The Evolution of Islam and its Integration with Science and Technology in Education
Islam, from its inception, witnessed rapid development that eventually paved the way for the emergence of various scientific disciplines. To ensure a harmonious coexistence between the ever-advancing realms of science and technology and the Islamic faith, it is imperative to emphasize two fundamental aspects (Akhmad, 2018; Ian et al., 2022):

● The Integration of Islamic Creed with Scientific Knowledge and Technology
The integration of Islamic teachings into the realm of scientific knowledge and technology serves as a foundational pillar. In this regard, the Quran and Hadith must be upheld as the standard basis upon which this integration is built. This approach ensures that the pursuit of knowledge and technological advancement remains firmly grounded in the principles of Islam.

● Islamic Sharia as the Guiding Framework
To determine the permissibility (halal) or prohibition (haram) of deriving benefits from scientific knowledge and technology, Islamic Sharia stands as the guiding framework. By adhering to Sharia principles, individuals can navigate the ethical dimensions of their interactions with scientific advancements, thereby fostering a morally upright integration of science and faith.

Evolution of Islam and Science
The historical development of Islam has seen it evolve alongside scientific progress. This evolution has led to a recognition of the importance of harmonizing scientific knowledge and technological advancements with the fundamental tenets of the Islamic faith.

The Integration of Islamic Creed
Incorporating the Islamic creed into the application of scientific knowledge and technology is pivotal. The Quran and Hadith, as the primary sources of Islamic teachings, should serve as guiding lights in this endeavor. They offer a moral compass, ensuring that scientific advancements are pursued in a manner consistent with the values and principles of Islam. By grounding scientific knowledge in the Quranic and Hadith teachings, the integration becomes a reflection of the harmony between faith and reason.

The Role of Islamic Sharia
Islamic Sharia, with its comprehensive ethical and legal framework, plays a crucial role in discerning the permissibility of utilizing scientific knowledge and technology for various purposes. The guidance provided by Sharia allows individuals to determine whether an application of science and technology aligns with Islamic principles. This ensures that benefits derived from scientific progress are in accordance with the ethical guidelines set forth by Islam (Akhmad, 2018; Ian et al., 2022).

The rapid development of Islam throughout history has necessitated a thoughtful integration of scientific knowledge and technology into the faith. By emphasizing the integration of Islamic creed with scientific advancements and utilizing Islamic Sharia as a guiding framework, individuals can navigate the ever-evolving landscape of science and technology while upholding the values and principles of Islam. This harmonious integration ensures that the pursuit of knowledge and technological progress remains firmly rooted in the rich tradition of Islamic teachings.

Islam actively encourages research, fostering qualities like critical thinking, openness to the truth, and the use of common sense to think critically. It champions technological competence and emphasizes that science and technology are integral to contemporary life. As a result, Islamic education plays a pivotal role in determining the application of educational technology within its institutions (Rizky et al., 2021).

The application of multimedia-based technology, within Islamic contexts, does not bear any symbolic prohibition. Instead, it aligns with Islam's emphasis on progress and positive change. No textual evidence or scholarly consensus deems the use of multimedia technology as haram (forbidden). Islam, as a religion that values the welfare of its people, encourages adaptation to changes and developments, and urges the acquisition of knowledge in various fields, including multimedia-based technology (Zulazizi, 2020).

"Read, ˹O Prophet,˺ in the Name of your Lord Who created—created humans from a clinging clot. Read! And your Lord is the Most Generous, Who taught by the pen—taught humanity what they knew not."

(Surah al-'Alaq, 96:1-5)

The Quran and multimedia-based technology share a profound connection in the context of science and education. According to Quranic verses, various elements, including reading (Iqra'), writing instruments (Qalam), and teaching (Allama), contribute to the appreciation of knowledge and the development of technology that facilitates human affairs (Zulazizi, 2020).

"Glory be to the One Who took His servant ˹Muḥammad˺ by night from the Sacred Mosque to the Farthest Mosque whose surroundings We have blessed, so that We may show him some of Our signs.[1] Indeed, He[2] alone is the All-Hearing, All-Seeing."

(Surah al-Isra', 17:1)

Multimedia-based education can also be linked to the events of Isra' and Mi'raj, wherein Rasulullah SAW embarked on a night journey. This journey provided wisdom and lessons through multimedia elements characterized by visual and auditory methods during the interaction between Rasulullah SAW and Jibril AS, combining hearing, vision, and cognitive analysis. Additionally, the journey itself facilitated an interactive learning process, underscoring the evolving nature of knowledge transfer and pedagogy, just as in the Prophet's time (Zulazizi, 2020).

Methodology

This research project had the primary objective of identifying teaching and learning methods that are rooted in technology, all while adhering to the principles and values of Islamic education. To achieve this goal, a qualitative research approach was employed as the methodology (Jasmi, 2012).

The data collection process involved conducting interviews with eight students who were enrolled at Universiti Teknologi MARA Melaka Branch. These students represented a diverse group, including those studying foreign languages like Mandarin, Arabic, Japanese, and Korean.

To analyze the rich data gathered from these interviews, researchers utilized Atlas.ti software (Jasmi, 2012). This software facilitated a systematic and organized examination of the interview responses, allowing for the identification and categorization of technology-based teaching and learning methods that align with Islamic principles.

Overall, this research aimed to bridge the gap between technology and Islamic education by exploring how technology can be harnessed effectively in the teaching and learning process within an Islamic framework. The inclusion of students from diverse language backgrounds

adds depth to the study, potentially revealing cross-cutting methods applicable to various educational contexts.

Implications of the Use of Multimedia Technology in Education 4.0
The implications of multimedia technology usage in education extend to score achievement, interest, motivation, assessment, and skills development.

Score Achievement
Multimedia technology significantly influences students' vocabulary mastery and academic performance. A study conducted by Lai (2020) examined the impact of multimedia technology on third-grade students in Kuala Lumpur who were learning Mandarin vocabulary. This research revealed that the incorporation of multimedia technology led to enhanced comprehension and quicker learning compared to traditional teaching methods. Students actively engaged with the material and derived enjoyment from the learning process.
Supporting this finding, a study conducted by Nurlaili et al (2023) demonstrated that students derive enjoyment from their learning experiences when multimedia elements, such as audio and visuals, are integrated into the curriculum. Interactive videos and e-games were found to facilitate better content understanding and increased student focus. Furthermore, a study by Khairuddin et al (2023) reaffirmed these results, highlighting that the use of visuals as a learning tool extended students' memory retention and contributed to higher learning outcomes.
In summary, the incorporation of engaging multimedia technology not only piques students' interest in language learning but also elevates their academic performance, leading to improved scores.

Interest
Student interest in subjects tends to surge when multimedia technology is incorporated into teaching and learning processes (Lai, 2020; Fauzi & Ramli, 2023). Undoubtedly, challenging subjects demand significant student effort. Consequently, educators have innovatively devised e-quizzes as a strategy to captivate students' attention and facilitate better retention of syllabus content. This phenomenon has been extensively explored in historical studies, with supporting evidence found in research conducted by Khairuddin et al., 2023.

Motivation
Student motivation is positively influenced by the utilization of multimedia technology materials that are interactive, engaging, and tailored for effective learning (Lai, 2020; Fauzi & Ramli, 2023; Harraz, 2023). The commitment to promoting active and enjoyable engagement represents a key driving factor for educators (Nurlaili et al., 2023).

Assessment
Multimedia technology streamlines assignments, fostering creativity and elevating the quality of work produced by students. This simplification of assessments not only makes them more manageable but also contributes to the enhancement of students' skills (Fauzi & Ramli, 2023).

Skills Development
The integration of multimedia technology into education plays a pivotal role in advancing the technological proficiency of both students and educators (Fauzi & Ramli, 2023). In anticipation

of Education 5.0, educators are proactively equipping themselves with ICT-based skills, aligning with government initiatives aimed at nurturing tech-savvy students (Fauzi & Ramli, 2023; Harraz, 2023).

Conclusion

Overall, this study contributes to the development of Islam in the field of multimedia technology. Religion does not reject the goodness and benefits of multimedia technology, especially in the aspect of education. Through the use of multimedia technology in education, users can disseminate religious knowledge and its benefits quickly, easily, and on a broader scale.

The integration of multimedia technology has permeated various aspects of education. In Islam, this adoption aligns with the pursuit of knowledge and technological progress, echoing the faith's encouragement to seek useful knowledge and technology. However, it is imperative that the application of multimedia technology adheres to Islamic ethical and moral values. These values include avoiding actions that contravene religious norms, inflict harm, or tarnish human dignity. Thus, multimedia technology in education is not only compatible with Islam but strongly encouraged. Multimedia technology should be harnessed for the betterment of humanity and progress, not for negative or destructive purposes. Islam promotes its responsible use, ensuring that multimedia technology is directed toward goodness and benefit in both this world and the hereafter.

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