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Islamic Cultural History Learning Media Based on Cyberspace: An Analysis of Implementation, Challenges, and Opportunities in Madrasah Aliyah

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ABSTRACT

This study aims to comprehensively analyze the implementation, challenges, and opportunities of using cyberspace-based learning media in the Islamic Cultural History (SKI) subject at *Madrasah Aliyah* in Medan. The research method used was qualitative, with data collected through in-depth interviews with 12 SKI teachers from 12 different *Madrasah Aliyah*. The results of the study indicate that, although conventional learning media, such as textbooks and whiteboards, are still widely used, there has been a significant increase in the utilization of cyberspace media, including PowerPoint, videos, and interactive applications like Quizizz and Wordwall. The main challenges faced by teachers include limited technological knowledge, resistance to change, time constraints, as well as inadequate technological infrastructure and internet access. Nevertheless, the integration of cyberspace media offers great opportunities to improve the quality of learning, develop 21st-century and Industrial Revolution 5.0 skills, and prepare students to face the digital era. The conclusion of this study emphasizes the need for a comprehensive strategy, such as teacher training and professional development, enhanced institutional support in providing technological infrastructure, and collaboration among teachers, schools, the government, and other stakeholders to optimize the integration of cyberspace media in SKI learning at *Madrasah Aliyah*.

Keywords: learning media, cyberspace, SKI, learning quality, *Madrasah Aliyah*

INTRODUCTION

The cyberspace era has transformed the SKI subject at *Madrasah Aliyah* (Islamic Senior High Schools), making the integration of cyberspace-based learning media an urgent necessity. This media is engaging and interactive, aligning with the preferences of the current technology-oriented generation. The revolution of learning media in SKI (Sejarah Kebudayaan Islam; English: *Islamic Cultural History*) has become increasingly inclusive and relevant to students' cyberspace experiences [1]. Cyberspacization is essential to maintain the relevance of religious subjects [2]. Cyberspace media expands the scope and deepens the exploration of SKI material, enriching students' understanding of Islam [3].

Technology can enhance the quality of learning and prepare students for future technological advancements, demanding innovation and adaptation from educators [4]. The use of cyberspace devices encourages the creation of an interactive and supportive learning environment [5]. Teachers' creativity and innovation in cyberspace media are highly important [6]. The transition to cyberspace-based learning improves the quality of education and prepares students to face contemporary issues more competently, leading them into a globally connected era [7]. Therefore, the integration of cyberspace in SKI is essential for preparing future generations who are knowledgeable, technologically skilled, and ethical [8].

The integration of cyberspace learning media into the SKI subject at *Madrasah Aliyah* holds great potential and presents significant challenges. Although technology has advanced rapidly, many educational institutions still lack sufficient technological resources, thereby hindering the effective application of cyberspace devices in religious instruction. Research indicates that while technology has the potential to enhance pedagogical methods and student engagement, the lack of technical support and teacher expertise represents a significant barrier to successful integration [9].

Furthermore, the reliance on technology in SKI raises concerns about the diminishing human interaction that is essential in religious education. Face-to-face discussions and personal guidance are crucial components in teaching religious values, and there are concerns that cyberspace devices may reduce such interactions. These concerns are supported by studies that emphasize the importance of maintaining personal relationships within educational settings, particularly in

disciplines that require deep conceptual understanding and spiritual development [10], [11]. The COVID-19 pandemic has accelerated the need for technological adaptation in Islamic education, prompting educators to explore innovative solutions such as cloud-based learning and e-learning platforms [12]. These technologies have shown promise in enhancing the quality of education and facilitating access to learning materials [13]. However, the transition to cyberspace platforms presents challenges, as many educators may require additional training to use these tools effectively, creating a gap between the potential benefits of technology and its implementation in the classroom [14].

The integration of cyberspace learning media into the SKI subject at the secondary school level has transformed traditional teaching methods that relied heavily on textbooks and lectures. Various cyberspace tools, including e-learning platforms, applications, and virtual reality, facilitate a more interactive and engaging learning environment. This transformation reflects a pedagogical shift from a didactic model to a constructivist one, in which students are more actively involved in their learning process, with educators acting as facilitators rather than mere transmitters of information [15].

The importance of adapting SKI to the cyberspace era is emphasized by Meliny, who indicates that the cyberspacization of education enhances the effectiveness and efficiency of the learning process, making it essential for educators to adopt this change to prevent religious education from becoming outdated [16]. In addition, cyberspace learning media such as animated videos and interactive platforms have been proven to create more engaging and relevant learning environments, thereby deepening the understanding of religious concepts [17]. The COVID-19 pandemic has accelerated the implementation of cyberspace learning methods in SKI, prompting educators to explore innovative solutions and online platforms [18]. Various studies have shown that online learning was effective during the pandemic, enabling the continuity of education despite numerous challenges [19], [20].

However, most previous studies have focused on the general effectiveness of using digital media in SKI learning, without examining in depth how cyberspace integration can shape adaptive and contextual learning strategies in accordance with students' needs in the digital era. The novelty of this study lies in its in-depth analysis of a cyberspace integration model in SKI learning that not only emphasizes technological aspects but also identifies relevant pedagogical strategies to enhance digital literacy and holistic understanding of religious values. Therefore, this study is expected to provide a new contribution to the development of a more innovative, effective, and contextual SKI learning model in the current era of digital transformation [21].

This transition also encourages educators to innovate and develop new teaching strategies that utilize cyberspace tools, thereby increasing student participation and engagement [22]. Teachers' focus is on preparing themselves for a cyberspace-based learning environment, making it essential to be directly involved and provide practical examples in the teaching of Islamic Cultural History [23].

Although the literature on educational technology has grown rapidly, there remains a significant research gap regarding the specific implementation of cyberspace learning media in the context of SKI, particularly at the *Madrasah Aliyah* level. Existing studies often focus more on general aspects of technology without exploring how it can be adapted to meet the unique needs of religious education [24]–[26]. In addition, research on the impact of this technological integration on students' understanding and retention of religious material, as well as how it affects the development of their values and morals, is still lacking [27]–[29].

This study offers a new perspective by focusing on a comprehensive analysis of the implementation, challenges, and opportunities of cyberspace learning media in SKI at *Madrasah Aliyah*. By integrating educational theory, technology, and religious studies, this research aims to elaborate on how cyberspace media can be effectively integrated into religious education to meet the demands of the modern era. The novelty of this study also lies in its effort to explore and identify the factors that affect the success or failure of technology integration in SKI, providing recommendations that can help schools in adopting educational technology more effectively and sustainably.

RESEARCH METHOD

This study used a qualitative approach to gain an in-depth understanding of the use of cyberspace learning media in the SKI subject at *Madrasah Aliyah* in Medan. The qualitative approach was chosen for its strength in exploring and understanding phenomena within their natural context. This approach allowed the researcher to obtain deep insights into teachers' perceptions, experiences, and subjective responses toward the integration of cyberspace technology into their teaching. The study explored how cyberspace learning media were adopted in the SKI curriculum, with a focus on implementation, challenges, and opportunities [30], [31].

The subjects of this study consisted of 12 SKI teachers from 12 different *Madrasah Aliyah* in Medan. Each teacher was assigned a code from T01 to T12 to facilitate identification in the study without revealing their identities. The selection of subjects from various schools was intended to capture the diversity of experiences and perspectives regarding the use of cyberspace learning media in different educational contexts. Medan, as the research location, was chosen due to its diversity in educational technology and the cyberspace teaching initiatives that had been implemented in many schools, thus providing a rich context for comparative analysis [32], [33].

This study followed strict research ethics principles, with all participants providing informed consent after receiving a full explanation of the study's

objectives and procedures. Personal information and data obtained from each participant were kept confidential and used anonymously. Data were collected through in-depth interviews designed to allow teachers to openly and thoroughly share their experiences. The interviews were conducted in safe and comfortable settings for the teachers, using a semi-structured interview guide that included questions about the use of technology in teaching, the effectiveness of cyberspace learning media, and the challenges and opportunities encountered [34], [35].

The in-depth interview method was chosen because it allowed the collection of rich qualitative data directly from the respondents' perspectives. This method enabled the researcher to explore specific aspects of SKI teachers' use of cyberspace learning media, such as the types of media used, how these media were applied in their teaching, and students' responses to the media. In addition, in-depth interviews facilitated discussions on the challenges faced by teachers in implementing new learning technologies and the opportunities that arose from their use, providing insights that could not be captured through quantitative methods [34].

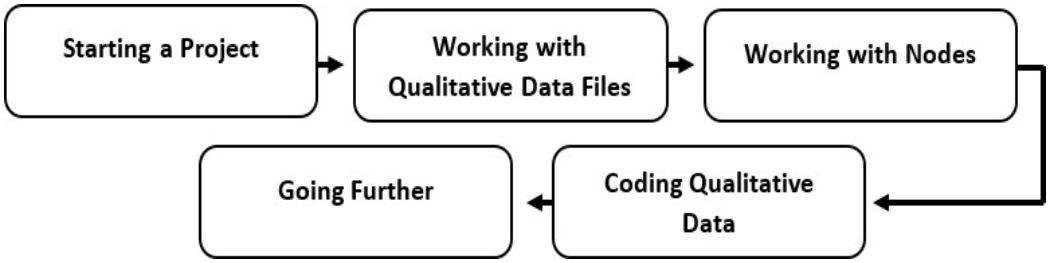

Figure 1. Workflow for Data Analysis Using NVivo Software [36]

The data analysis process was carried out using the Miles and Huberman model, which involves three main components: data reduction, data display, and conclusion drawing. Interview transcripts were simplified and categorized during the data reduction phase to identify key themes and patterns. The data were then presented in the form of tables and diagrams to facilitate further analysis. NVivo 12, a qualitative data analysis software, was used to assist in coding, storing, and managing the data. This software enabled the researcher to organize the data efficiently, identify relationships between themes, and systematically build causal networks, thereby supporting the validity and reliability of the research findings [37]–[39].

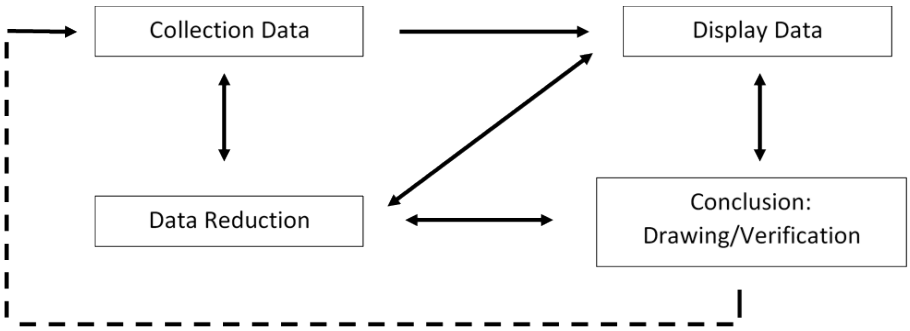

Figure 2. Data Analysis Diagram [40]

RESULTS AND DISCUSSION

This study revealed several key findings regarding the implementation of cyberspace-based learning media in the Islamic Cultural History (SKI) subject at *Madrasah Aliyah* in Medan. In terms of media utilization, although technology has rapidly advanced, conventional learning media such as textbooks, whiteboards, and modules are still predominantly used by SKI teachers. A total of 13 out of 12 teachers still rely on textbooks as the primary source of instruction. However, the use of cyberspace media has significantly increased. Most teachers have started using PowerPoint presentations, videos, and interactive applications such as Quizizz and Wordwall in the learning process. This indicates the teachers' efforts to adapt to technological developments and the needs of the cyberspace generation. The implementation of cyberspace media faces various challenges. Internal challenges include limited knowledge and technological skills of teachers, resistance to change, limited time to design cyberspace-based materials, and dependence on traditional teaching methods. External challenges include the need for more technological infrastructure, such as the availability of hardware and stable internet access, limited resources, and electricity issues. These challenges hinder teachers from optimally utilizing cyberspace media and affect the quality of learning.

1. Utilization of Conventional and Cyberspace Learning Media

The research findings indicate that SKI teachers at *Madrasah Aliyah* in Medan utilize various learning media, both conventional and cyberspace-based. The use of these media aims to enhance the effectiveness of learning and to align with technological developments as well as the characteristics of Generation Z students who are familiar with the cyberspace world.

Table 1. Mapping of Conventional and Cyberspace Learning Media Utilization

Category	Code	Type of Media	Code	Participant IDs
Cyberspace Media	DM	PowerPoint/Slides	Number DM01	T02, T03, T04, T05, T06, T07, T08, T09, T10, T11, T13, T16
		Video	Number DM02	T03, T05, T10, T11
		Quiz	Number DM03	T02, T04, T15
		Google Forms	Number DM04	T02, T13, T12
		Youtube	Number DM05	T11
		Projector	Number DM06	T02, T03, T04, T05, T06, T07, T08, T09, T10, T11, T13, T16
		Mobile Phone	Number DM07	T14, T15
		Canva	DM08	T02
		Wordwall	Number DM09	T02, T13, T12
		Kahoot (English)	DM10	T02
		Google Sites	DM11	T02
		Smart Board	DM12	T07
Conventional Media	cm	Textbooks	CM01	T01, T02, T04, T05, T06, T07, T08, T09, T12, T13, T14, T15, T16
		Whiteboard	CM02	T02, T07, T15
		Modules/Worksheets (LKS)	CM03	T05, T06

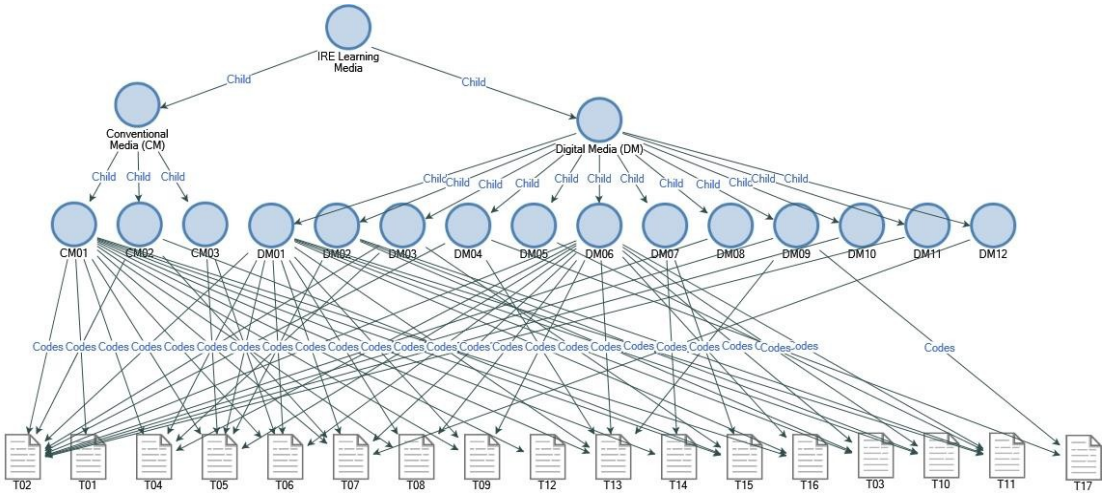

Figure 3. Project Map in NVivo 12

Based on Figure 3. Project Map in NVivo 12, it can be explained that the thematic structure of the research on IRE Learning Media is divided into two main categories, namely Conventional Media (CM) and Digital Media (DM). Each category has sub-categories (child nodes) that indicate the detailed types of media analyzed in the learning process.

Digital Media (DM) dominates the number of nodes with a total of 12 sub-categories (DM01 to DM12), while Conventional Media (CM) consists of 3 sub-categories (CM01 to CM03). Each sub-category is linked to a number of documents (T01–T17), indicating the frequency or relevance of coding derived from interview data, observations, or other documents uploaded to NVivo.

The connecting lines between nodes and documents indicate the relationship between types of learning media and the field data that have been analyzed. This project map provides a visual representation of how the main themes and sub-themes were identified, as well as the distribution of

their relationships within the collected qualitative data.

Conventional learning media that are still predominantly used include textbooks, whiteboards, and modules or Student Worksheets (LKS). A total of 13 out of 12 teachers (T01, T02, T04, T05, T06, T07, T08, T09, T12, T13, T14, T15, T16) still rely on textbooks as the main source of instructional materials. Whiteboards are used by three teachers (T02, T07, T15) to explain the material directly in the classroom. Modules or Student Worksheets (LKS) are also used by two teachers (T05, T06) as practice materials and for deepening students' understanding of the subject matter. The use of conventional media indicates that traditional teaching methods still play an important role in the teaching and learning process. This is in line with the view proposed by Yuniarti that, despite the rapid development of technology, conventional learning media remain relevant in helping students understand basic concepts [41].

On the other hand, there has been a significant increase in the use of cyberspace-based learning media. Most teachers (12 out of 12) use PowerPoint or slides (T02, T03, T04, T05, T06, T07, T08, T09, T10, T11, T13, T16) as visual aids in delivering the material. Projectors serve as the main support for displaying cyberspace materials in the classroom. Several teachers also utilize interactive cyberspace platforms and applications. For example, four teachers use videos as learning media (T03, T05, T10, T11). Conversely, several teachers (T02, T04, T13, T15, T12) use platforms such as Quizizz and Wordwall to create interactive quizzes that enhance student engagement. Other applications, such as Google Forms, Kahoot, and Canva, are also utilized for various instructional purposes. The use of cyberspace media reflects teachers' efforts to integrate technology into SKI instruction in response to the demands of the cyberspace era. According to Khuzaifah, integrating cyberspace media into SKI can enhance interactivity and make learning more enjoyable for students [42].

The combination of conventional and cyberspace media provides flexibility in teaching methods. Teachers can adjust the media used based on the needs of the material and the characteristics of the students. For example, abstract concepts in SKI can be explained visually through cyberspace media, while in-depth discussions and value inculcation can be conducted through direct interaction using conventional media [43]. Research by Dalifa et al. emphasizes the importance of teachers' creativity and innovation in utilizing cyberspace media to improve the quality of learning. Cyberspace media facilitates the delivery of materials and enables the development of 21st-century skills, such as cyberspace literacy and critical thinking [44].

2. Challenges in the Use of Cyberspace-Based Learning Media

Cyberspace-based learning media in the SKI subject at *Madrasah Aliyah* present various challenges that must be addressed to achieve optimal learning effectiveness. These challenges can be categorized into two main groups, namely internal challenges that originate from the teachers and external challenges that stem from external factors that cannot be directly controlled by the teachers.

Table 2. Mapping of Challenges in the Utilization of Cyberspace-Based Learning Media

Category	Code	Type of Challenge	Sub-Code	Participant Code
Internal Challenges (Originating from Teachers)	DI	Limited Technological Knowledge	DI1	T03, T04, T07, T09, T12, T13, T14, T15
		Limited Time	DI2	T03, T04, T13, T15
		Limitations in Updating Teaching Methods	DI3	T01, T07, T12, T13
		Resistance to Technology / Lack of Motivation	DI4	T09, T12, T14
		Ineffective and Uninnovative Use of Media	DI5	T05, T12, T14
External Challenges (Factors Beyond Teachers' Control)	EX	Dependence on Traditional Lecture Methods	EX1	T02, T03, T04, T07, T12
		Lack of Infrastructure	EX2	T08, T10, T11, T13, T14, T15
		Internet Connection Issues	EX3	T02, T03, T04, T07, T08, T10, T11, T13, T14, T15
		Availability of Devices (e.g., projectors)	EX4	T04, T07, T10, T15

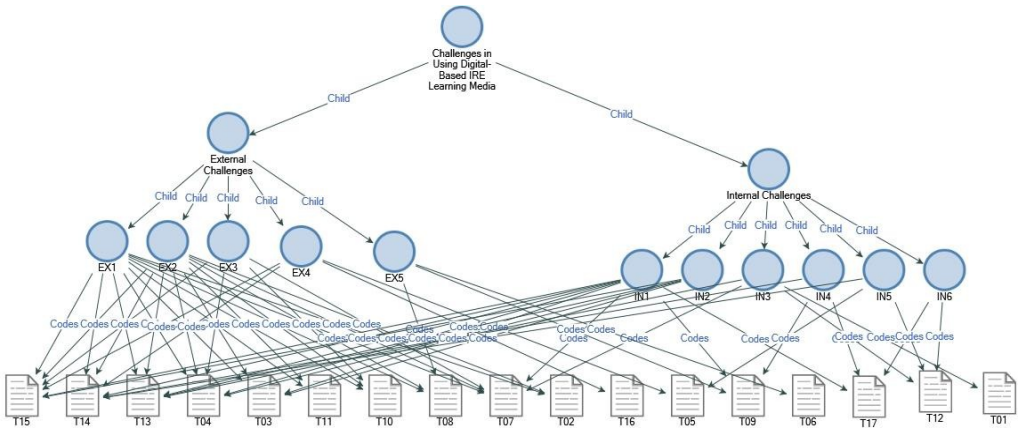

Figure 4. Project Map in NVIVO 12

Based on Figure 4. Project Map in NVivo 12, the visualization shows the structure of the challenges encountered in the use of digital-based IRE learning media. The main theme presented is "Challenges in Using Digital-Based IRE Learning Media," which is then categorized into two main types of challenges, namely External Challenges and Internal Challenges.

In the External Challenges section, there are five sub-challenges (EX1–EX5) representing external obstacles such as infrastructure limitations, internet access, and policy support. Meanwhile, Internal Challenges consist of six sub-challenges (IN1–IN6) related to internal factors such as teacher readiness, technological competence, and students' attitudes toward digital learning.

This map also shows the direct relationship between each challenge and the data documents (T01–T17). The lines connecting the nodes to the documents indicate that these issues emerged in the data from interviews, observations, or other supporting documents.

Overall, this visualization helps illustrate the distribution of issues and their frequency of occurrence, thereby assisting researchers in identifying the areas that most dominantly serve as obstacles in the use of digital IRE learning media.

Internal challenges are related to factors within the teachers themselves, including limited technological knowledge, resistance to change, limited time, and dependence on traditional teaching methods. Eight teachers (T03, T04, T07, T09, T13, T14, T15, T12) identified limited technological knowledge as the main obstacle in integrating cyberspace media into SKI learning. These limitations include the inability to operate educational software, utilize interactive applications, and adapt to e-learning platforms. They require more technological knowledge, which results in teachers feeling less confident in using cyberspace media, ultimately affecting the quality of learning. According to Rusdi et al., teachers' technological competence is crucial for the successful implementation of technology in education [9]. With adequate understanding, teachers will find it easier to utilize the full potential of cyberspace media. Resistance to change and a lack of motivation to adopt new technology are significant challenges. Three teachers (T09, T14, T12) demonstrated this resistant attitude, which may be due to familiarity with traditional teaching methods or discomfort with technology. Mutmainnah and Khaerunnisa emphasized that teachers' attitudes and perceptions toward technology greatly influence the success of its integration into learning. This barrier can hinder innovation and reduce students' opportunities to gain learning experiences relevant to the cyberspace era [45].

Four teachers (T03, T04, T13, T15) mentioned limited time as a constraint in designing and implementing cyberspace learning media. Preparing cyberspace materials often requires more time compared to conventional methods, especially for teachers who need to familiarize themselves with the technology. According to Putra's study, a high workload and limited time can reduce teachers' ability to innovate in learning [46]. Therefore, effective time management and institutional support are needed to provide sufficient time for teachers to develop cyberspace media. Several teachers (T12, T12) still rely on lecture methods to teach SKI. In addition, some teachers identified limitations in updating teaching methods (T01, T07, T12, T13). This dependence on traditional methods can reduce student engagement and does not align with the learning styles of the current generation. Resti et al. stated that creativity and innovation in using cyberspace media are essential to improving the quality of learning. Teachers must adapt to technological developments and develop more interactive and student-centered teaching methods [47].

External challenges include factors that are beyond the teachers' direct control, such as infrastructure limitations, internet connectivity issues, and the availability of resources. Ten teachers (T02, T03, T04, T07, T08, T10, T11, T13, T14, T15) reported the lack of infrastructure as a major obstacle. Projectors, computers, and other supporting devices are limited, making it difficult for teachers to use cyberspace media in the classroom. Febrian et al. emphasized that with adequate facility support, efforts to cyberspace learning would be

more accessible and properly implemented [48]. Technological infrastructure is a crucial foundation for enabling the effective integration of cyberspace media. Four teachers (T04, T07, T10, T15) faced issues with unstable or unavailable internet connections. Poor internet connectivity hinders access to online learning.

Resources, e-learning platforms, and interactive applications require an internet connection. According to Pabbajah et al., adequate internet access is a prerequisite for utilizing cyberspace technology in education [49]. With a stable connection, the potential of cyberspace media can be optimized. Several teachers (T05, T14, T15, T16) identified resource limitations such as the lack of necessary hardware and software. In addition, frequent electricity problems (T06, T08, T09) also became obstacles in using cyberspace media. These limitations indicate the need for support from schools and the government to provide the necessary resources. Investment in infrastructure and technological facilities will help overcome these challenges. These challenges directly affect the quality of SKI learning. Internal limitations, such as a lack of technological competence and resistance to change, can hinder innovation in teaching. Meanwhile, external challenges such as infrastructure limitations and technical issues reduce teachers' ability to effectively utilize cyberspace media. A study by Faqihuddin et al. showed that students will face difficulties in implementing and receiving consistent support, which ultimately affects their engagement and motivation in learning [50].

3. Opportunities for Cyberspace-Based Learning Media

This study reveals various opportunities for integrating cyberspace-based learning media in the SKI subject at *Madrasah Aliyah*. These opportunities include improving the quality of learning, developing 21st-century skills, and shaping student character in ways that are more relevant to the demands of the cyberspace era. Cyberspace learning media offer various interactive features that can enhance student engagement and motivation in SKI learning. The use of interactive applications, educational videos, and e-learning platforms allows for more varied and engaging material delivery. Wada'ah and Tohet stated that cyberspace media can make SKI learning more dynamic, allowing students to more easily understand religious concepts that are sometimes abstract [51]. In addition, cyberspace media allows teachers to present material in a multimodal format, combining text, images, audio, and video. This is in accordance with the multimedia learning theory, which states that learning is more effective when information is presented through multiple forms of representation. Thus, cyberspace media can improve students' understanding and retention of SKI material [52].

The integration of cyberspace media in SKI learning can provide religious knowledge and help students develop 21st-century skills such as cyberspace literacy, critical thinking, collaboration, and creativity. According to Jufri, the use of cyberspace media in SKI can encourage students to be more active and independent in learning, as well as improve their ability to use technology positively [53]. Interactive platforms such as Quizizz, Kahoot, and Wordwall enable students to engage in gamified learning, thereby increasing their motivation and participation. In addition, collaboration through online platforms can train students' teamwork and communication skills, which are essential in today's era of globalization. Cyberspace learning media allow broader and more flexible access to learning materials. Students can access the materials anytime and anywhere, making learning no longer confined to the classroom. Yumnah stated that e-learning in SKI enables continuity of learning even under challenging conditions [54].

In addition, cyberspace media allows differentiated learning, where teachers can provide materials that match the ability levels and needs of each student. This supports a more personalized and adaptive learning approach. Although there are concerns that technology may reduce human interaction, cyberspace media can also be used to strengthen character formation and moral values. Through well-designed cyberspace content, religious values can be delivered to students in a more relevant and contextual manner. Adiyono et al. emphasized that character education in the era of Industry 5.0 can be achieved by utilizing technology wisely. For example, inspirational videos, interactive simulations, and cyberspace stories can teach values such as honesty, responsibility, and tolerance [55]. Social media and online platforms can also serve as tools to develop positive learning communities and support students' spiritual development.

By integrating cyberspace media into SKI learning, students will gain religious knowledge and be prepared to face the challenges of the cyberspace era. They will be better equipped to handle rapid technological developments and social changes. Pabbajah et al. stated that the cyberspacization of Islamic education helps students understand contemporary issues and contribute to an increasingly globally connected society [56]. For teachers, the use of cyberspace media opens opportunities to innovate teaching methods. Teachers can develop creative and interactive learning materials and adopt more student-centered pedagogical approaches. According to Hariyadi et al., the transformation of SKI through e-learning and interactive technology can improve teaching effectiveness and student engagement [57]. This innovation can also enhance teachers' professionalism and motivate them to continue learning and developing. By mastering technology, teachers can be more flexible in adjusting their

teaching to the needs of students and curriculum developments. Cyberspace media enables collaboration between teachers and students across regions and even countries. Online platforms and social media can be used to exchange information, experiences, and best practices in SKI learning. This opens opportunities to broaden perspectives and enrich learning materials with more global viewpoints.

The research results show that some teachers have utilized cyberspace media such as PowerPoint, videos, and interactive applications in SKI learning. Although challenges still exist, teachers who have successfully integrated technology reported an increase in student motivation and participation. This indicates that the opportunities offered by cyberspace media are real and can be optimized. Teachers who use applications such as Quizizz, Wordwall, and Kahoot reported that students were more enthusiastic about participating in learning and found it easier to understand the material. This is in line with the findings of Kharismatunisa regarding the positive impact of cyberspace media on student engagement [58]. In addition, the use of cyberspace media allows for the provision of more enriched and varied learning materials. Teachers can access online resources such as YouTube videos, articles, and e-books, which can deepen students' understanding of SKI content [59].

CONCLUSION

This study provides a comprehensive analysis of the implementation, challenges, and opportunities of integrating cyberspace learning media in the Islamic Cultural History (SKI) subject at *Madrasah Aliyah*. The research findings show that the utilization of cyberspace media, such as PowerPoint, instructional videos, and interactive applications like Quizizz and Wordwall, has brought positive changes to SKI learning. SKI teachers in Medan have been able to utilize various digital media to create learning experiences that are more engaging, relevant, and aligned with the characteristics of today's digital generation.

However, the integration of cyberspace media still faces various challenges, both internal and external. Internal challenges include limited technological knowledge, resistance to change, limited time, and a tendency to rely on traditional teaching methods. Meanwhile, external challenges involve limited technological infrastructure, internet access, resources, and electricity issues. These factors serve as the main obstacles that influence the success or failure of integrating cyberspace media into SKI learning.

On the other hand, this study also identifies significant opportunities offered by cyberspace media, including increased student engagement and motivation, the development of 21st-century skills such as digital literacy and critical thinking, as well as expanded access to learning materials. The integration of cyberspace media also promotes innovation in teaching methods and supports character development, thereby better preparing students to face the challenges of the modern era.

Based on the results of the analysis, this study recommends the need for strategies to strengthen teachers' competencies, improve technological infrastructure, and provide school policy support so that the integration of cyberspace media in SKI learning can be implemented effectively and sustainably. In this way, *Madrasah Aliyah* can optimally utilize the potential of technology to enhance the quality of Islamic religious education that is adaptive to the developments of the times.

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