

INTEGRATION OF TECHNOLOGY IN THE ERA OF INDUSTRIAL REVOLUTION 5.0 IN ISLAMIC EDUCATION

¹INDRA ARI IRVAN, ARIEIRVAN0304@GMAIL.COM

²SAIPUL ANNUR, SAIPULANNUR_UIN@RADENFATAH.AC.ID

¹UNIVERSITAS ISLAM NEGERI RADEN FATAH PALEMBANG, SUMATERA SELATAN, INDONESIA

²UNIVERSITAS ISLAM NEGERI RADEN FATAH PALEMBANG, SUMATERA SELATAN, INDONESIA

1st ICOERESS

(October 16th, 2024)

Submission:

(16-10-2024)

Published:

(30-12-2024)

ABSTRACT

Technology becomes a primary value in the era of the industrial revolution 5.0. The acceleration of information technology progress has had a significant impact on human life patterns, especially in the world of education. So what is the role of an Islamic education integration pattern in the world of Islamic education and its implications related to human behavior in the era of the 5.0 revolution. In the era of the 5.0 digital industrial revolution continues to develop, information and communication technology has changed many aspects of life, including the world of education. Islamic education is also inseparable from the impact of this transformation. Effective Islamic education management plays an important role in improving the quality of learning and performance. Therefore, the integration of technology in Islamic education management is becoming increasingly relevant and important. Based on several factors that influence the needs and challenges in integrating technology in the era of the 5.0 industrial revolution in Islamic education management. The purpose of this study is to determine the Integration of Technology in the era of the 5.0 revolution in Islamic education. The methodology used in completing this paper uses the library research method. This activity critically examines the thoughts of figures and literature, books, journals, and other related matters that are in accordance with the material to be presented.

Keywords: *Technology Integration, Industrial Revolution 5.0, Islamic Education*

BACKGROUND

In the digital era that continues developing, technology information and communication has change Lots aspect life, including the world of education (Budiman, 2017). Nor does Islamic education let go from impact transformation This. Management effective Islamic education play role important in increase quality teacher learning and performance (Nurul Hidayati Murtafiah, 2022). Therefore that, integration technology in management Islamic education becomes the more relevant and important. Based on several factor affecting needs and challenges in integrate technology in management Islamic education. First, the rapid development technology give opportunity new in empower teachers, improve efficiency administration, and enrich experience Study students. Use technology can support effectiveness management Islamic education with provide access fast and easy to source Power education, tools sophisticated evaluation, and a variety of innovative learning strategies. Technology integration in Islamic education is draft basis that focuses on utilization technology For increase quality learning and presenting experience learn more interactive, innovative and relevant with Islamic values. With adopt draft this, institution Islamic education can prepare generation quality, moral Muslims noble, and ready face future challenges in the digital era (Sholeh, 2023).

The rapid development technology in a number of decade final has give opportunity new in empower teachers, improve efficiency administration, and enrich experience Study student in context Islamic education. With existence technology, teachers can access various source Power education in a way fast and easy. (Nafilatur Rohmah, 2019) Learning materials, teaching materials, and references can accessed through online platforms, e-books, or digital repository, providing flexibility in use material relevant and quality learning. In addition, technology also provides tool sophisticated evaluation, like

application online exam, system evaluation automatic, and data analysis that helps teachers in track progress students and provide feedback more effectively (Arista Desti Wulandari et al., 2021).

Use technology also makes it possible implementation of innovative learning strategies in management Islamic education. For example, with using e-learning platforms, teachers can create experience interactive and interesting learning with merge various media such as images, video, and audio (Hingide et al., 2021). Technology also allows implementation of blended learning, which combines learning look at advance with online learning, so that student can Study in a way independent and collaborative (Chaeruman, 2013). This matter give variation in method learning and enabling adjustment to style Study individual. In other words, the use of technology in management Islamic education does not only enrich source Power education, but also opening up opportunity For develop more learning strategies effective and attractive for student.

Second, the challenge in management Islamic education in the digital era is also necessary considered. Paradigm change in Islamic education demands existence adaptation to change technology. Teachers need to understand and use technology with Good For facilitate relevant, interactive, and meaningful learning. In context this, integration technology in management Islamic education can assist teachers in carry out task they with more effective. Paradigm change in Islamic education demands existence adaptation to progress technology that continues develop. Teachers need to own good understanding about technology and capabilities For use it in a way effective use facilitate relevant, interactive, and meaningful learning for students. In addition, the challenges other covering maintenance and improvement infrastructure adequate technology, adequate training for teachers in integrate technology in learning, as well as deep understanding about How technology can used in a way ethical and appropriate with values Islamic education.

More specifically, the data analysis revealed several significant barriers that hinder teachers' progress in using technology for classroom instruction. Some barriers are completely beyond teachers' control, such as lack of access to equipment, appropriate software, equipment malfunctions, lack of time to prepare for technology-integrated learning. This is true for National High Schools (SMK) and High Schools with Religious Streaming Classes (KAA); the types of schools in the context of this study that are different from boarding high schools (SBP) and Special Model Schools whose facilities were built with special funds from the Ministry. In the context of Regular High Schools (SMK) and High Schools with Religious Streaming Classes (KAA), this study found three main barriers: unavailability of well-functioning equipment, training needs to be conducted during regular office hours, and teachers need sufficient time to collaborate with other teachers in technology integration. Another barrier faced by teachers is that technology integration is not shown as a way to improve the quality of education or test scores on school achievement tests and, therefore, is a low priority (Saadl & Busrowi, 2015).

In terms of this, integration technology in management Islamic education can give solution for teachers in carry out task they with more effective. Use technology can increase efficiency administration, enrich experience Study students, and allows implementation of innovative learning strategies. However, it is necessary remember that integrate technology in education also requires management good, support from party schools and administrators, as well as planning term long For development technology in context Islamic education. With understand challenges and opportunities associated with use technology, Education Islam can Keep going adapt and improve quality learning in the digital era that continues developing. From the other side the impact technology to teacher performance also becomes attention. With utilise appropriate technology, teachers can manage task administrative with more efficient, improve interaction and collaboration with students and parents, as well as adopt approach innovative and personalized learning. Technology integration in management Islamic education can give means that enable teachers to optimize teaching and improving achievement academic students. Therefore that, research about integration technology in management Islamic education that focuses on improving teacher performance is very important. With understand challenges, needs, and benefits from use technology in context Islamic education, research This aiming For provide runway theoretical and practical for effective strategy development and implementation in utilise technology in management Islamic education.

RESEARCH METHOD

In completing this paper using the library research method. This study critically examines the thoughts of figures and literature of books, journals, and other related matters that are in accordance with the material to be presented. Miqzaqon T and Purwoko stated that library research is a study used in collecting information and data with the help of various materials available in the library such as documents, books, magazines, historical stories and so on (Milya Sari & Asmendri, 2020). Khatibah stated that library research is an activity carried out systematically to collect, process, and conclude data using certain methods/techniques in order to find answers to the problems faced through library research.

The technique used in collecting this data uses secondary data, namely by collecting data indirectly through literature, books, and journals related to the discussion. Then after collecting the data, the next step is to analyze the material through library studies with the results of descriptive analysis. So library research is a research activity carried out by collecting information and data with the help of various materials available in the library such as reference books, previous similar research results, articles, notes, and various journals related to the problem to be solved.

RESEARCH FINDINGS

Concept of Technology Integration in Islamic Education

1. Definition of Technology Integration

The definition of integration according to KBBI (Big Indonesian Dictionary) is a blending to become a whole or complete unity. There is another definition according to ICCE (Intracapsular Cataract Extraction). Integration is the unification of different parts of a society towards a whole unity, or also as a collection of many small communities that become one nation. Thus, it can be concluded that integration is an effort to unite different elements so that they become one unit against a problem that occurs in each of these elements. Meanwhile, according to Wedawaty in Ahmad (2018) states that integration is a combination, unification, or merger of two or more objects. Definition of technology. According to Indrajit (2007), it states that in human resource assets it is necessary to pay attention to technical expertise, business knowledge and orientation towards problem solving because of the need for human resources who have technical abilities in the form of critical factors in companies due to the rapid advancement of information technology.

According to Susilahudin et al (2018: 43), stated that the industrial era 4.0 is a term used to refer to an era where there is a combination of technologies that result in physical, biological, and digital dimensions forming a combination that is difficult to distinguish. According to Oliver (2011: 25), one of the most popular theories of technology integration is the Technology Acceptance Model (TAM). Technology integration theory is a theory that analyzes and understands the factors that influence the acceptance of the use of computer technology. There are two factors in TAM that predominantly influence technology integration. The first factor is user perception of the benefits of technology. While the second factor is user perception of the ease of use of technology (ease of use).

From the several definitions above, it can be concluded that integrated technology is due to the unification of different functions into a whole and interdependent unit, and is related to achieving a goal. Moreover, technology provides great benefits and opportunities for companies. Technology that is integrated with business strategy and organizational functional strategy is a success in implementing technology management and its implementation.

2. Development of Islamic Education in the Digital Era

In this era of rapid digital and information development, it can bring science and technology to progress. This development can also have positive and negative impacts quickly and openly to all users of digital information technology. Technology has influenced and changed many of human habits in

their daily lives, and if we do not follow technology, we will be left behind in terms of mastery of information. The role of the speed of information that we obtain with appropriate filtering will create opportunities to advance faster, with consideration of time and qualified abilities. Information and communication also greatly influence social life, because along with the development of communication science, new habits will arise for social life in society, therefore our speed in responding to new cultural habits must be balanced with our speed in receiving the latest information, with this mastery adapting to a progressive environment will be easier (Alfinnas, 2018).

Education at this time with the development of information, technology, and social media towards progressive education. Supported by the Covid pandemic, education has implemented a lot of online learning to support learning without gathering in one place to slow the spread of the corona virus. Learning media used for education has many types such as Google Classroom, Google Meet, Zoom Meeting, and Whasaap Grup. Technology has now become one of the basic needs that cannot be separated from a person. Those who are just born are immediately greeted with advanced technology and they are able to develop dynamically following its development. This phenomenon will give rise to a tendency towards technology in daily activities and in any case, digital technology can be equated with very important basic needs because many of the various activities are coated with technology.

Islamic Religious Education as a science that must be studied since childhood in Islam must be taught in line with the phenomenon of current technological tendencies, with the right techniques and methods Islamic Religious Education with a digital technology wrap will develop very rapidly and reach a wider range for all groups. If Islamic Religious Education still wants to use previous methods such as reading and memorization, it is feared that students will not be too enthusiastic in learning it, because it is not in accordance with the habits of receiving information in their daily lives. In designing learning, teachers are expected to be able to collaborate the values of learning, with methods adapted to technology, the role of learning at this time is a challenge for education and also society to build education wrapped in technology, which is able to answer the values of education with the needs and desires of society (Ul haq & Hamami, 2020).

Here are some examples that can be used as references in learning in the digital era that have provided the latest creations for learning characters, including:

- a. Demographic Dimension, which means that learning can be done placeless (not in place), timeless (not timed), meaning that all students can learn anytime, anywhere and also with anyone.
- b. Literacy Dimension, making a skill in thinking with LOTS (Lower Order Thinking Skills) which defines by memorizing, understanding and applying. HOTS (Higher Order Thinking Skills) can define responsiveness by evaluating, analyzing and creating. The literacy in question includes:
 - Technology Literacy, where humans can understand a data source through technological tools.
 - Human Literacy, where humans as single users must understand the nature of their lives and continue their lives in the future.

The paradigm of Islamic Religious Education in a development in the digital era is faced with pragmatic matters, meaning that education with technological advances at this time will bring convenience in optimizing teaching and learning activities, and in terms of preventive measures, rapid technological advances can have positive and negative impacts (Tang, 2018)

3. Models of Technology Integration in Islamic Education

Technology integration in the context of education requires a planned strategic approach (Jimoyiannis & Komis, 2016). Here are some strategic approaches that can be applied in the process of technology integration:

- a. Strategic Plan: Formulating a clear strategic plan is an important first step in technology integration. This plan should include specific objectives, implementation strategies, required budget, and relevant policies and guidelines. This plan should be based on an analysis of the needs and

challenges faced by the educational institution, as well as considering the vision and mission of Islamic education.

- b. **Skills Development:** It is important for teachers and educational staff to have sufficient technological skills to integrate technology well into their educational practices. Training and professional development programs should be designed to improve digital literacy and technological skills. This will enable them to utilize technological tools and applications effectively in teaching and managing Islamic education.
- c. **Infrastructure and Resources:** Building adequate technological infrastructure and providing necessary resources are important components in technology integration. Educational institutions need to provide access to hardware, stable internet connection, supporting software, and relevant digital content and resources. Infrastructure management and maintenance must also be prioritized to ensure smooth operation of technology.
- d. **Integrated Curriculum:** Technology must be integrated harmoniously into the Islamic education curriculum. The curriculum must be designed to include the use of technology in learning strategies, assessments, and student skill development. This can be done by designing learning units that integrate technology, teach digital skills, and utilize technological tools in the learning process.
- e. **Evaluation and Monitoring:** Continuous evaluation and monitoring processes are important to measure the effectiveness of technology integration in Islamic education management. Evaluation can be done through classroom observations, feedback from students and teachers, and analysis of relevant data. The results of this evaluation can be used to identify areas for improvement, adopt best practices, and make necessary changes in the implementation of technology.

A strategic approach to technology integration ensures that the use of technology in Islamic education management is planned, effective, and sustainable. It is important to involve all stakeholders, including teachers, education staff, students, and management, in the planning, implementation, and evaluation process to achieve optimal results.

DISCUSSION

The Role of Technology in Islamic Education

1. Improving Accessibility, Flexibility, Learning Effectiveness

Digitalization allows easy access to information and learning resources from anywhere and anytime. Students can learn flexibly through online learning platforms, lecture recordings, and digital learning resources, which help overcome geographical and time constraints, and can improve student motivation and learning outcomes. This is revealed from several research results, including: In the increasingly advanced digital era, online learning media provides advantages such as flexibility of time and place, wider accessibility, and the use of interactive and interesting multimedia for students (Paulus Haniko et al., 2023). The results of the study showed that the use of online learning media has advantages such as flexibility, interactivity, and easy access (Murtado et al., 2023). Digitalization is flexible enough to be implemented because it can be adjusted to the needs of educational elements, become a means to meet learning objectives, and facilitate the learning process (Ni'mah et al., 2021).

Technology as a learning medium has also encouraged effectiveness in learning. Access to digital resources, distance learning, interactive media, and online collaboration enrich students' learning experiences and support educators in providing more effective learning. The advantages of online-based learning media, such as easy accessibility, flexibility of time and place, and high interactivity. Online learning is learning that uses an internet network with accessibility, connectivity, flexibility, and the ability to generate various types of learning interactions. The application of technology can help improve the quality of learning and assessment, open up opportunities for distance learning, develop students' digital skills, and pay attention to the safety and privacy of student data. There is a relationship between e-learning-based learning management and learning effectiveness.

2. Encourage Project-Based Learning

Encouraging Project-Based Learning Technology facilitates project-based learning by providing digital tools for creating, editing, and sharing student work. Students can use graphic design, programming, or media production applications to apply their knowledge in real contexts and produce meaningful work. Learning technology has contributed to increasing student creativity in learning with the Project-Based Learning model. Project-Based Learning (PjBL) is an innovative approach to learning activities that teaches many important tips for success in the 21st century (Laras Sulistyorini & Yeni Anistiyasari, 2020). The application of the Project Based Learning model can significantly improve students' creative thinking skills and encourage students to be more motivated, directly involved, and active in learning (Eko Anis Setyorini et al., 2023). The results of the study showed that the use of the STEAM-integrated PjBL model is very good for improving critical thinking skills and 21st-century skills for students (M. Hidayatur Rohman et al., 2021). The STEAM (Science, Technology, Engineering, and Mathematics) approach in 21st century learning in welcoming the era of society 5.0 can train students' abilities and talents to face 21st century problems (Mu'minah, 2021). There is continuity between the KKN curriculum and the Independent Curriculum and there are similarities and compatibility according to the principles of educational technology, so that the implementation of the independent curriculum is basically oriented towards improving student competencies along with all supporting systems that lead to the realization of quality graduates.

Project-based learning is a learning model that is very ideal to be applied to vocational education, especially in audio amplifier subjects. Therefore, the keyword in the application of technology as a learning medium is the teacher. Teachers' acceptance of technology in learning can determine their optimism and innovation in learning, so teachers need to be encouraged to prepare various skills and competencies to use technology to support their teaching and learning activities (Hidayati et al., 2023).

3. Use of E-learning and Blended Learning Technology

E-learning and blended learning are two approaches that can be used in Islamic education to utilize technology in the learning process. Here is an explanation of the two approaches: E-Learning: E-learning refers to learning that is done entirely online, where teachers and students interact through an online learning platform. This approach utilizes technology to deliver learning materials, complete assignments, participate in discussions, and access educational resources. Teachers can use learning videos, multimedia presentations, interactive modules, and online assessment tools to deliver materials in an interesting and effective way. Students have the flexibility to access materials anytime and anywhere, according to their schedule and abilities. E-learning can help expand access to Islamic education, facilitate independent learning, and provide a flexible learning experience. Blended Learning: Blended learning combines online and face-to-face learning in one learning approach. This approach combines elements of online learning with direct interaction between teachers and students in the classroom. Teachers can use online learning platforms to provide pre-recorded materials, online assignments, and online discussions before face-to-face meetings. Then, in face-to-face sessions, teachers and students interact directly to discuss materials, engage in collaborative activities, and get direct feedback. Blended learning combines the advantages of flexible online learning and interactive face-to-face learning, allowing for an optimal combination of self-directed learning and direct guidance from teachers.

In Islamic education, e-learning and blended learning can be used to deliver religious teaching materials, Arabic language learning, and Islamic studies effectively. This approach allows students to access Islamic education resources more easily, expands the reach of learning, and allows for more active interaction between teachers and students. In its implementation, it is important to consider adequate technological infrastructure, technological skills training for teachers, and the supervision and support needed to maintain the quality of learning in an e-learning or blended learning environment (Budiman, 2017).

The Impact of Technological Developments on Islamic Education

The development of technology in Indonesia in the field of education has been very pronounced, although Indonesia still needs a lot of support for technological development, Indonesia is a country that can be said to be a consumer country in the field of educational technology, but in the field of written works Indonesia is already advanced. The development of technology in education is progressing very rapidly, changes from face-to-face learning to online learning and assignments are given through online media such as Zoom Meeting, Google Meet, E-Learning, and Wa groups (Maritsa et al., 2021).

There are many types of technology in delivering to students in learning according to the target students or the teacher's ability to master the field of technology in learning, various forms of technology use in learning:

1. **Audio:** in the form of sound in delivering the material and is usually used in the form of voice messages such as VoiceNote on the Whatsapp application, the effectiveness of audio in understanding the material for elementary school students is less effective because early childhood prefers or is interested in pictures and things that require body movement. In Islamic education, audio technology has been used for a long time, such as short studies, Murrotal Al-Quran, and also Islamic-themed songs. The effectiveness of audio in Islamic education has grown rapidly during the COVID-19 pandemic.
2. **Visual:** Islamic education with visual-related arts such as calligraphy and ornamentation, the development of visual technology in Islamic education includes electronic visual works that can be associated with quotes from religious leaders or hadiths, excerpts from verses of the Quran, and posters of appeals or invitations to improve life. Many schools affiliated with Islamic organizations or institutions teach about visual design in Islam (Wildan, 2018).
3. **Audio Visual:** information technology that includes sound and images simultaneously in its delivery, audio visuals are considered very influential in Islamic education because understanding and practicing them is considered very easy, audio as the content of the material and visuals to see how to do it. Audio visual in Islamic education is very effective in learning for young and old people, there is a lot of evidence of the success of audio visual in Islamic education such as, small children who memorize a letter of the Qur'an by watching videos repeatedly, because it has an attractive appearance and exciting sound.

The positive impact of technology in Islamic education is very much felt by educators, students, or the general public. In addition to the positive impact of technology in Islamic education as above, negative impacts must always be present in all things including technology in education, the role of the internet in technology is very important, besides that in the free use of the internet can cause many things that educators do not want for students' searches on the internet can happen. Some examples of the negative impacts of the development of educational technology for students who are mostly young people and are still unstable in their thinking and easily accept information..

1. The frequency of students in accessing the internet makes them aware of the positive and negative sides of the internet world, the use of the internet for the wrong things is something that is very feared by educators or parents of students.
2. The addictive effect of the internet with its algorithm, namely the search homepage will adjust to what is often searched for in searches, especially social media, this can have a positive or negative impact. The algorithm in search suggestions is a system that was created over a long time, to change search suggestions and homepages in social media if they are filled with bad things, it takes time to fix the algorithm.
3. False information is a problem that is greatly feared by all technology users in education, false information in education has a great influence on the world of education because they feel that the information is sufficient for the basis of their argument without validating the information is true or false

Benefits Of Technology Integration In Islamic Education

Technology integration in Islamic education management provides a number of significant benefits. Here are some of the main benefits of technology integration in Islamic education management:

1. **Quick and Easy Access to Educational Resources** (Unik Hanifah Salsabila et al., 2020): Technology integration allows teachers, students, and other educators to access educational resources quickly and easily. Through the internet and online learning platforms, they can access learning materials, digital books, articles, videos, or other multimedia content relevant to Islamic education. This opens the door to wider access to knowledge, information, and educational resources that are essential for quality teaching and learning.
2. **Improving Administrative Efficiency** (Febrianti et al., 2023): Technology integration in Islamic education management can help improve administrative efficiency in educational institutions. The use of a school management system or educational administration software can simplify processes such as student data management, registration, payments, reporting, and monitoring student performance. This reduces the administrative workload of teachers and school staff, so they can focus more on student learning and development activities.
3. **Development of Innovative Learning Strategies** (Hikmah & Chudzaifah, 2020): Technology integration enables the development of innovative learning strategies in Islamic education. Teachers can use digital learning tools and applications to create interactive, engaging, and relevant learning experiences for students. Examples include the use of learning videos, simulations, educational games, or collaborative learning platforms. This helps increase students' interest, participation, and understanding of Islamic teachings.
4. **Encouraging Independent Learning** (Puspaningrum et al., 2021): Technology integration also encourages independent learning among students. Students can access learning materials, assignments, and learning activities independently through online learning platforms. They can study the content flexibly, according to their own pace and learning style. This increases students' independence in learning and develops problem-solving, time management, and self-organization skills.
5. **Providing Advanced Evaluation** (Kuncahyono et al., 2020): Technology integration enables the use of advanced evaluation tools in Islamic education management. Teachers can use online assessment apps or platforms to give and manage exams, quizzes, or assessment assignments. This allows for automated collection and assessment of results, as well as providing quick and detailed feedback to students. This helps teachers track student progress, identify their learning needs, and make appropriate interventions.

The integration of technology in Islamic education management can have a positive impact on improving teaching, learning, and management of educational institutions. However, it is important to ensure that the use of this technology is carried out with due regard to Islamic religious values and remains focused on the desired educational goals.

Challenges faced in integrating technology in Islamic education

The integration of technology in Islamic education faces a number of challenges that need to be addressed. Here are some common challenges faced in integrating technology in Islamic education:

1. **Digital Divide** (Zulfa Hazizah & Henry Aditia Rigianti, 2021): One of the main challenges is the digital divide, which is the inequality of access and ability in using technology. Not all Islamic educational institutions have adequate technological infrastructure or sufficient resources to adopt technology properly. In addition, students and teachers may have different levels of digital literacy, so efforts need to be made to ensure that all parties have the access and skills needed to integrate technology.

2. **Attention to Religious Values** (Dhora et al., 2023): In Islamic education, it is necessary to ensure that the use of technology remains consistent with religious values and Islamic principles. This challenge involves selecting digital content that is in accordance with Islamic teachings, effective supervision of materials published online, and ensuring that the use of technology does not conflict with religious values that are upheld.
3. **Training and Professional Development**: Integrating technology into Islamic education requires appropriate training and professional development for teachers and education staff. These challenges include efforts to improve technology skills, understanding of digital learning applications and tools, and the ability to integrate technology into the curriculum and teaching strategies that are in line with Islamic education.
4. **Data Security and Privacy** (Wardhani et al., 2022): The use of technology in Islamic education also poses challenges related to data security and privacy. Educational institutions need to ensure that students' and teachers' personal data is properly protected, including the implementation of data security policies, appropriate privacy settings, and protection against cyber threats.
5. **Content Management and Quality**: Technology integration also involves challenges in content management and quality. In adopting digital resources, Islamic educational institutions need to select and evaluate content that is quality, accurate, and in accordance with Islamic values. In addition, strict supervision and monitoring of the content used in online learning needs to be carried out to ensure that they are relevant and support the goals of Islamic education.

To address these challenges, Islamic educational institutions need to undertake careful planning, allocate adequate resources, provide necessary training and technical support, and involve all stakeholders in the technology integration process.

Steps for Implementing Technology in Islamic Education

Analysis of Technology Needs through: Identifying technology needs relevant to Islamic education. Identifying technology needs relevant to Islamic education is the process of identifying technology devices and applications that can support the effectiveness of Islamic education. In this process, it is necessary to understand the specific challenges and needs faced by Islamic educational institutions, such as administrative management, learning, student supervision, and communication. Based on this understanding, educational institutions can determine the right technology solutions, such as school systems, online learning applications, collaboration platforms, or digital evaluation tools.

Identifying relevant technology needs helps in maximizing the potential of technology to enhance the effectiveness of Islamic education and achieve desired educational goals. Conduct an assessment of the existing technology infrastructure in the school. This assessment involves reviewing and evaluating the hardware, software, internet connectivity, and facilities available in the school. The goal is to identify the strengths, weaknesses, and needs in the existing technology infrastructure. With a good assessment, educational institutions can identify areas that need improvement, such as hardware upgrades, increased internet speeds, or improved network reliability. This will ensure that the technology infrastructure in the school is adequate and can support the effective implementation of technology in Islamic education.

Understanding the challenges and opportunities in integrating technology in Islamic education is an important step in planning and implementing an effective strategy. Challenges can include the digital divide, adherence to religious values, training and professional development, data security and privacy, and content management and quality. Understanding these challenges allows educational institutions to design appropriate solutions and overcome potential barriers. On the other hand, understanding the opportunities available, such as quick and easy access to educational resources, increasing administrative efficiency, developing innovative learning strategies, and improving teacher performance, can provide motivation and guidance in integrating technology effectively. By

understanding these challenges and opportunities, Islamic educational institutions can take the right steps to optimize the use of technology in Islamic education.

CONCLUSIO

The development of technology today has influenced and also changed many people in their daily lives, so that if we are now stuttering or do not understand technology, then we will be late in mastering information, Islamic education must also be applied with an approach that is in harmony, with the methods and tendencies of today's students, where we must also see the impact of this technology in learning on students, where technology also has a positive impact such as reading books about the history of Islamic education, reading the Koran, while in negative terms such as watching adult films, playing games excessively and playing online gambling for example. The role of technology for Islamic education also has a way to be able to arouse students' enthusiasm for learning, one of which is to provide adequate and quality educational facilities, which can be used by students. The development of Islamic education in the digital era, in reality, the lives of all humans in this digital era can always be related to technology. For this reason, the role of society in this Digital Era is a challenge for society to be able to build technology and information-based education, which is able to answer the challenges of the needs of society in this Digital Era

REFERENCE

- Alfinnas, S. (2018). Arah Baru Pendidikan Islam di Era Digital. *FIKROTUNA*, 7(1), 803–817. <https://doi.org/10.32806/jf.v7i1.3186>
- Arista Desti Wulandari, Juni'ah, & Susilawati. (2021). Pemanfaatan Teknologi Sebagai Alat Evaluasi Dalam Dunia Pendidikan di Sekolah Dasar. *Proseding DIDAKTIS 6: Proseding Seminar Nasional Pendidikan Dasar*, 6(1), 147–157.
- Budiman, H. (2017a). Peran Teknologi Informasi Dan Komunikasi Dalam Pendidikan. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 8(1), 31. <https://doi.org/10.24042/atjpi.v8i1.2095>
- Budiman, H. (2017b). Peran Teknologi Informasi Dan Komunikasi Dalam Pendidikan. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 8(1), 31. <https://doi.org/10.24042/atjpi.v8i1.2095>
- Chaeruman, U. A. (2013). MERANCANG MODEL BLENDED LEARNING. *Jurnal Teknodik*, 17(4), 399. <https://doi.org/10.32550/teknodik.v17i4.482>
- Dhora, S. T., Hidayat, O., Tahir, M., Arsyad, A. A. J., & Nuzuli, A. K. (2023). Dakwah Islam di Era Digital: Budaya Baru “e-Jihad” atau Latah Bersosial Media. *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, 17(1), 306. <https://doi.org/10.35931/aq.v17i1.1804>
- Eko Anis Setyorini, Dyah Worowirastrri Ekowati, & Fitria Febriyanti. (2023). PENINGKATAN KETERAMPILAN BERPIKIR KREATIF SISWA MENGGUNAKAN MODEL PROJECT BASED LEARNING MATA PELAJARAN SENI RUPA MELALUI KOLASE MIX MEDIA. *Pendas :Jurnal Ilmiah Pendidikan Dasar*, 8(1), 665–674.
- Febrianti, I., Tuffahati, J., Rifai, A., Affandi, R. H., Pradita, S., Akmalia, R., & Siahaan, A. (2023). PENGARUH PENGGUNAAN TEKNOLOGI INFORMASI DALAM MANAJEMEN PERENCANAAN PENDIDIKAN UNTUK MENINGKATKAN EFISIENSI PENDIDIKAN. *Academy of Education Journal*, 14(2), 506–522. <https://doi.org/10.47200/aoej.v14i2.1763>
- Hidayati, D., Rifa'i, A. A., & Rochmah, S. N. W. (2023). Learning Management System in Madrasah: A Study of Teacher Readiness and Acceptance of Technology. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, 7(3), 719–735. <https://doi.org/10.33650/al-tanzim.v7i3.4322>
- Hikmah, A. N., & Chudzaifah, I. (2020). Blanded Learning: Solusi Model Pembelajaran Pasca Pandemi Covid-19. *Al-Fikr: Jurnal Pendidikan Islam*, 6(2), 83–94. <https://doi.org/10.32489/alfikr.v6i2.84>

- Hingide, M. N., Mewengkang, A., & Munaiseche, C. P. C. (2021). PENGEMBANGAN MEDIA PEMBELAJARAN BERBASIS MULTIMEDIA INTERAKTIF PLATFORM ANDROID PADA MATA PELAJARAN PPKN SMK. *Edutik : Jurnal Pendidikan Teknologi Informasi Dan Komunikasi*, 1(5), 557–566. <https://doi.org/10.53682/edutik.v1i5.2922>
- Jimoyiannis, & Komis. (2016). Strategic Approaches to Technology Integration in Education: A Systematic Literature Review.” . *Educational Technology & Society*, 9(4), 16–27.
- Kuncahyono, K., Suwandayani, B. I., & Muzakki, A. (2020). Aplikasi E-Test “That Quiz” sebagai Digitalisasi Keterampilan Pembelajaran Abad 21 di Sekolah Indonesia Bangkok. *Lectura : Jurnal Pendidikan*, 11(2), 153–166. <https://doi.org/10.31849/lectura.v11i2.4687>
- Laras Sulistyorini, & Yeni Anistyasari. (2020). Studi Literatur Analisis Kelebihan dan Kekurangan LMS Terhadap Pembelajaran Berbasis Proyek pada Mata Pelajaran Pemrograman Web di SMK. *IT-Edu : Jurnal Information Technology and Education*, 5(2), 171–181.
- M. Hidayatur Rohman, Putut Marwoto, Sunyoto Eko Nugroho, & Supriyadi. (2021). *Prosiding Seminar Nasional Pascasarjana ISSN 26866404 Pascasarjana Universitas Negeri Semarang Persepsi Dan Pembiasaan Penggunaan Model Pembelajaran Berbasis Proyek Terintegrasi STEAM pada Mata Kuliah IPA: Studi Pendahuluan Tentang PjBL Terintegrasi Steam untuk Meningkatkan Keterampilan Abad 21*. 195–202. <http://pps.unnes.ac.id/prodi/prosiding-pascasarjana-unnes/>
- Maritsa, A., Hanifah Salsabila, U., Wafiq, M., Rahma Anindya, P., & Azhar Ma’shum, M. (2021). Pengaruh Teknologi Dalam Dunia Pendidikan. *Al-Mutharahah: Jurnal Penelitian Dan Kajian Sosial Keagamaan*, 18(2), 91–100. <https://doi.org/10.46781/al-mutharahah.v18i2.303>
- Milya Sari, & Asmendri. (2020). Penelitian Kepustakaan (Library Research) Dalam Penelitian Pendidikan IPA. *Natural Science : Jurnal Penelitian Bidang IPA Dan Pendidikan IPA* , 6(1), 41–53.
- Murtado, D., Hita, I. P. A. D., Chusumastuti, D., Nuridah, S., Ma’mun, A. H., & Yahya, M. D. (2023). Optimalisasi Pemanfaatan Media Pembelajaran Online Sebagai Upaya Meningkatkan Hasil Belajar Siswa di Sekolah Menengah Atas. *Journal on Education*, 6(1), 35–47. <https://doi.org/10.31004/joe.v6i1.2911>
- Nafilatur Rohmah. (2019). Literasi Digital Untuk Peningkatan Kompetensi Guru Di Era Revolusi Industri 4.0. *Awwaliyah: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 2(2), 128–134.
- Ni’mah, D. Z., Chamalah, E., & Azizah, A. (2021). FLEKSIBILITAS DAN AKSESIBILITAS DIGITALISASI PEMBELAJARAN BAHASA DAN SASTRA INDONESIA DI MASA PANDEMI COVID-19. *Jurnal Ilmiah SEMANTIKA*, 3(01), 84–90. <https://doi.org/10.46772/semantika.v3i01.570>
- Nurul Hidayati Murtafiah. (2022). Manajemen Pengendalian Kinerja Pendidik dalam Meningkatkan Mutu Pembelajaran Pada Lembaga Pendidikan Islam. *Jurnal Pendidikan Dan Konseling*, 4(6), 4614–1618.
- Paulus Haniko, Riri Mayliza, Suriati Lubis, Baso Intang Sappaile, Siti Aisyah Hanim, & Baiq Fina Farlina. (2023). PEMANFAATAN MEDIA PEMBELAJARAN ONLINE UNTUK MEMUDAHKAN GURU DALAM PENYAMPAIAN MATERI DALAM PEMBELAJARAN. *Community Development Journal*, 4(2), 2862–2868.
- Puspaningrum, A. S., Susanto, E. R., & Neneng, N. (2021). Penerapan Dan Pelatihan e-Learning Pada SMA Tunas Mekar Indonesia. *Jurnal Pengabdian Kepada Masyarakat (JPKM) TABIKPUN*, 2(2), 91–100. <https://doi.org/10.23960/jpkmt.v2i2.34>
- Saadl, N., & Busrowi, S. (2015). *Barriers to Technology Integration in Islamic Education: An Insight of Excellent teachers*. www.giobalilluminators.org

- Sholeh, M. I. (2023). Technology Integration in Islamic Education: Policy Framework and Adoption Challenges. *Journal of Modern Islamic Studies and Civilization*, 1(02), 82–100. <https://doi.org/10.59653/jmisc.v1i02.155>
- Tang, M. (2018). Pengembangan Strategi Pembelajaran Pendidikan Agama Islam (PAI) dalam Merespon Era Digital. *FIKROTUNA*, 7(1), 717–740. <https://doi.org/10.32806/jf.v7i1.3173>
- Ul haq, M. Z., & Hamami, T. (2020). Pengembangan Kurikulum Pendidikan Agama Islam di Era 4.0. *ISLAMIKA*, 2(2), 251–275. <https://doi.org/10.36088/islamika.v2i2.791>
- Unik Hanifah Salsabila, Windi Mega Lestari, Riasatul Habibah, Oqy Andaresta, & Diah Yulianingsih. (2020). Pemanfaatan Teknologi Media Pembelajaran di Masa Pandemi Covid-19. *Trapsila: Jurnal Pendidikan Dasar*, 2(2), 1–13.
- Wardhani, A. C., Karomani, K., Ashaf, A. F., & Aryanti, N. Y. (2022). Urgensi Perlindungan Data Pribadi (Sosialisasi kepada Guru dan Siswa SMA Bina Mulya Gadingrejo, Kabupaten Pringsewu). *Jurnal Pengabdian Dharma Wacana*, 3(3), 207–217. <https://doi.org/10.37295/jpdw.v3i3.336>
- Wildan, R. (2018). SENI DALAM PERSPEKTIF ISLAM. *Jurnal Ilmiah Islam Futura*, 6(2), 78. <https://doi.org/10.22373/jiif.v6i2.3049>
- Zulfa Hazizah, & Henry Aditia Rigianti. (2021). Kesenjangan Digital di Kalangan Guru SD dengan Rentang Usia 20-58 Tahun di Kecamatan Rajabasa. *Jurnal Pendidikan Modern*, 7(1), 1–7. <https://doi.org/10.37471/jpm.v7i01.284>