

## The Role and Challenges of Islamic Religious Education Teachers in Scientific Publication in the Digitalisation Era

Aprianti<sup>1\*</sup>, Muhammad Farouk Albakhar Anshori<sup>2</sup>, Desy Eka Citra Dewi<sup>3</sup>

Universitas Islam Negeri Fatmawati Sukarno Bengkulu\*<sup>1, 2, 3</sup>

<sup>1</sup>email: [Aprianti.1704@admin.sd.belajar.id](mailto:Aprianti.1704@admin.sd.belajar.id)

<sup>2</sup>email: [mfaroukalbakharanshori@gmail.com](mailto:mfaroukalbakharanshori@gmail.com)

<sup>3</sup>email: [dewiekacitra@mail.unifatmawatibengkulu.ac.id](mailto:dewiekacitra@mail.unifatmawatibengkulu.ac.id)

---

### Abstract

This study aims to identify the role of PAI teachers in addressing the challenges of the digital era and to examine how they can leverage technology to enhance the quality of learning and scholarly publications. The research employs a qualitative approach with a descriptive analysis, involving a literature review and interviews with PAI teachers in several schools. The findings indicate three main focuses in global digital community-based learning: (1) the construction of inquiry and discovery, (2) creativity and initiative, and (3) interaction and collaboration. Additionally, PAI teachers play seven key roles in digital learning, namely as: (a) sources of learning, (b) facilitators, (c) managers, (d) demonstrators, (e) mentors, (f) motivators, and (g) evaluators. The main challenges faced by PAI teachers include effectively managing scientific information and maintaining the quality of publications.

**Keywords:** Digital Era; Scientific Publications; PAI Teachers; Global Digital Community; Agent Of Change.

---

### Article Info

**Received:**

July 18, 2024

**Revised:**

October 19, 2024

**Accepted:**

November 15, 2024

**Published:**

December 10, 2024

---

### Abstract

Penelitian ini bertujuan untuk mengidentifikasi peran guru PAI dalam menghadapi tantangan di era digital, serta untuk mengetahui bagaimana mereka dapat memanfaatkan teknologi untuk meningkatkan kualitas pembelajaran dan publikasi ilmiah. Metode penelitian yang digunakan adalah pendekatan kualitatif dengan analisis deskriptif, yang melibatkan kajian pustaka dan wawancara dengan guru PAI di beberapa sekolah. Hasil penelitian menunjukkan bahwa ada tiga fokus utama dalam pembelajaran komunitas digital global, yaitu konstruksi pencarian dan penemuan, kreativitas dan inisiatif, serta interaksi dan kerjasama. Selain itu, guru PAI memiliki tujuh peran penting dalam pembelajaran digital, yakni sebagai sumber belajar, fasilitator, pengelola,

---

demonstrator, pembimbing, motivator, dan evaluator. Tantangan utama yang dihadapi guru PAI meliputi pengelolaan informasi ilmiah secara efektif dan menjaga kualitas publikasi.

**Kata Kunci:** Era Digital; Publikasi Ilmiah; Guru PAI; Komunitas Digital Global; Agen Perubahan.

---

## A. Introduction

Islamic Religious Education (PAI) plays a crucial role in shaping the character and morals of students in Indonesia. In the midst of advances in information and communication technology, the challenges faced by PAI teachers are increasingly complex, especially in integrating technology into the learning process. The changing educational paradigm from traditional methods to digital approaches demands quick and effective adaptation. However, although technology offers new opportunities, the quality of PAI teachers' teaching has often not kept pace with these developments, resulting in the use of less effective conventional methods. This study aims to explore the challenges and opportunities faced by PAI teachers in the digital era, as well as how they can improve their teaching quality and contributions in scientific publications.

Some previous studies highlighted the importance of technology integration in PAI learning, but did not explore the specific challenges faced by teachers in its implementation. Other studies focus on the impact of technology on student motivation, but do not explore how PAI teachers can adapt to this change. In contrast to these studies, this research aims to explore the challenges and opportunities faced by PAI teachers in the digital era, as well as how they can improve their teaching quality and contributions to scientific publications.

This reality shows a glaring gap between teachers and students. Students, as part of the digital generation, have adapted to modern technology and various digital resources, while most teachers still rely on textual methods that are no longer relevant to the needs of the times. This misalignment creates a significant distance in the learning process, where students' expectations of interactive, dynamic, and technology-

based learning are not in line with the teaching approach applied by PAI teachers.

This research is expected to provide new insights into the importance of digital literacy and the reorientation of the role of PAI teachers, as well as practical solutions to improve the quality of teaching and scientific publications. Thus, this study not only contributes to the development of PAI education theory, but also provides relevant recommendations for educational practices in the field.

The 21st century PAI teacher is faced with a very different situation compared to previous generations of educators. In the digital era, a teacher's success is no longer measured by his or her charisma, but rather by his or her ability to adapt, innovate, and create according to the needs of students. According to Karim and Saleh Sugiyanto (2006), PAI teachers should be able to use technology as a supporting tool in delivering relevant and interesting learning materials for students. However, many PAI teachers still use traditional text-centred teaching methods, making it difficult to bridge the needs of students who are accustomed to

quick access to information through the internet and other digital devices.

These changes are also changing the way students learn. The digital generation prefers to learn through interactive media such as videos, simulations, or learning apps rather than through traditional lecture methods. As a result, PAI teachers who do not adapt to these changes risk losing relevance in the eyes of students. This is further exacerbated by the lack of digital literacy training for teachers, which makes it difficult for them to utilise technology effectively in learning.

Digital literacy is a key competency that PAI teachers must have in this era. Digital literacy includes the ability to search, evaluate, and use digital information critically, as well as the ability to integrate technology into the learning process. According to Bastian, Aulia Reza (2002), the transition from the analogue era to the digital era changes the way learning is done. The learning environment is no longer limited to the classroom or face-to-face interaction, but includes various digital platforms that allow students to learn independently and flexibly. In this context, PAI teachers must be able to

utilise digital technology to create relevant and meaningful learning experiences for students.

In addition, digital literacy is also important in the context of scientific publications. PAI teachers are required to actively contribute to the publication of scientific papers relevant to their scientific fields. This requires skills in accessing electronic journals, writing data-driven articles, and using digital tools to support their research. Unfortunately, the lack of training and facilities is often an obstacle for PAI teachers to fulfil these demands.

The changes brought about by the digital era require a reorientation in the role of PAI teachers. If education previously focused on the one-way delivery of information, this approach is no longer relevant. Modern education requires students to actively seek, discover, and construct their own knowledge. The PAI teacher acts as a companion who helps students in this process, by creating conditions that allow them to learn creatively and independently.

According to the concept of multi-channel learning, students should be treated as dynamic learners who can

learn anytime, anywhere and through various sources. PAI teachers should open students' access to various digital learning resources, such as learning videos, interactive applications, and e-books, and help them evaluate the quality and relevance of the information. This role requires PAI teachers who not only understand digital technology, but are also able to create a learning environment that supports students' overall competency development.

In addition to challenges in learning, PAI teachers also face difficulties in producing and publishing scholarly works. Scientific publications require good writing skills, an understanding of research methodology, and access to academic resources. In many cases, PAI teachers lack adequate support in developing these competencies. In fact, scientific publications are very important to strengthen the contribution of PAI teachers in the development of religious education science.

One solution to overcome this challenge is to provide training that focuses on academic writing skills and the use of digital tools for research. In addition, educational institutions also

need to encourage collaboration among PAI teachers to share experiences and best practices in scientific publications.

The changes brought about by the digital era create both opportunities and challenges for PAI teachers. They are required to integrate technology into learning, improve digital literacy, and contribute to scientific publications. To meet these challenges, greater support is needed in the form of training, infrastructure, and access to digital resources. Thus, PAI teachers can transform into educators who are relevant, innovative, and able to meet the needs of students in the digital era.

Through role reorientation and increased digital literacy, PAI teachers can respond to the demands of the times while strengthening their position as agents of change in religious values-based education.

## **B. Research Methodology**

The research employs a qualitative method with a descriptive approach to comprehensively describe the roles and challenges faced by Islamic Religious Education (PAI) teachers in scientific publication during the digitalization era. Data collection techniques involve two primary steps: literature review and

interviews. The literature review gathers secondary data from various sources, such as academic journals, books, and official documents relevant to the research topic. Meanwhile, in-depth interviews are conducted with PAI teachers from several purposively selected schools to obtain primary data about their experiences in writing and publishing scientific articles.

Data analysis is carried out descriptively by understanding and organizing data from interviews and literature, then presenting it in a coherent narrative. The study also employs data triangulation to validate findings by comparing information from interviews and literature reviews. This approach aims to provide a clear picture of the role of PAI teachers in promoting scientific publication and the challenges they face, particularly concerning technology utilization in the digital era.

## **C. Results and Discussion**

Islamic Religious Education (PAI) as part of formal education in Indonesia has a vital role in shaping student character and introducing religious teachings in depth. Along with the development of information and communication technology (ICT), the

paradigm of Islamic religious education has also undergone significant changes. Previously, religious education was more conventional with a one-way approach, where teachers were the main source of knowledge delivered to students who tended to be passive. However, in today's digital era, the paradigm has shifted to a more interactive education model based on active learning, where students have a greater role in the learning process.

In this regard, Bennett (1993) suggests that education in the ICT era demands a change in orientation from passive instruction to active information seeking by students. This new paradigm raises the role of the teacher who is no longer just a conveyor of information, but also as a facilitator and motivator who assists students in accessing, understanding and constructing their own knowledge. According to Bennett, to support this change, teachers need to develop the ability to guide students in utilising technology to find more extensive and reliable information.

Buchori and Mochtar (1995) in their study also emphasised that in an increasingly complex world, the role of teachers is increasingly important in

creating creative and innovative individuals. Not only to teach religious values, but also to facilitate students to be able to face various challenges of the times in an adaptive and critical way. As a result, learning that promotes co-operation, interaction and exploration becomes very important, so that students can develop creativity and critical skills in viewing a world that is increasingly dominated by technology.

### **Vision of Islamic Religious Education Teachers in the Digital Age**

The vision of an Islamic Religious Education (PAI) teacher in the context of the digital era must be able to integrate technology in a profound way while maintaining the essence of religious teachings. PAI teachers not only act as educators who teach religious theories and values, but also must be guides in directing students to find the meaning of religious teachings in everyday life through various sources of information available in the digital world.

One of the biggest challenges faced by PAI teachers in the digital era is how to integrate religious teachings with the ever-evolving technology without compromising the moral and spiritual values contained therein. In this context,

it is important for teachers to not only master the use of digital devices, but also have a deep understanding of the impact of technology on student character building. Therefore, digital literacy is not only about the technical ability to use devices, but also the ability to assess the credibility of information circulating online.

In addition, it is important for teachers to understand that the digital world provides wider opportunities for students to access information, but not all information can be trusted. Therefore, the ability of teachers to direct students in sorting and selecting valid and useful information is one of the important competencies that PAI teachers must have.

### **Moral Responsibility and Social Sensitivity of Teachers in the Digital Age**

In a world that is increasingly connected through technology, PAI teachers hold a great moral responsibility in guiding students to be able to use technology wisely. Uncontrolled use of the internet and social media can expose students to inaccurate information or even damage their morality. PAI teachers in the digital

era must provide role models in using technology wisely and teach students to avoid misuse of technology that can damage morals.

Social sensitivity is also an important aspect for PAI teachers. In the digital world, information can spread very quickly, and sometimes the information comes from different cultures, backgrounds, and views. PAI teachers must be able to respond to this diversity wisely and guide students to appreciate differences, both in religious and cultural contexts. Therefore, the role of teachers in creating a space for constructive discussions on social and religious issues is very important, so that students can learn to be tolerant and respect differences.

By teaching digital moral and ethical values, teachers can help students to develop into individuals who are not only academically competent, but also have good character, who can contribute positively in a digital society.

### **Teachers' Challenges in Scientific Publication in the Digital Age**

In this digital era, PAI teachers are faced with the challenge of contributing to the world of scientific publications. Technology provides many opportunities

for teachers to share knowledge and research results through various digital platforms, such as online journals, blogs, scientific articles, and even social media. However, to be able to produce quality scientific publications, teachers must have qualified skills in writing, as well as the ability to manage and filter information spread in cyberspace.

One of the main challenges faced by PAI teachers in scientific publications is the ability to produce work that is acceptable in the academic world. Scientific publications must meet certain standards, both in terms of methodology, quality of writing, and contribution to the development of science. Therefore, teachers need to improve their scientific research and writing skills so that the work produced is not only useful in the context of Islamic religious education, but can also contribute to a broader understanding of religion globally.

Another challenge is how to manage the information available in the digital world. With so much information accessible, teachers must have the ability to select credible and relevant information, and be able to present it in a way that is easily understood by a wider audience. In this case, teachers' ability to

utilise various digital platforms to publish scholarly work is essential, be it in the form of journal articles, blogs, podcasts or videos.

### **Strategies for Facing Challenges in the Digital Age**

To overcome these challenges, Islamic Education teachers must develop skills and competencies in several key areas:

#### **1. Increased Digital Literacy:**

Improving digital literacy for Islamic Religious Education (PAI) teachers is crucial in supporting the learning process in the digital era. Digital literacy not only includes the basic ability to use devices and applications, but also includes deeper skills related to the effective utilisation of technology in education. Teachers must understand the various digital tools and platforms that can be used to enrich students' learning experiences. These include online learning applications, Learning Management Systems (LMS), digital presentation tools and social media platforms.

Mastering the right digital applications and tools allows teachers to access information quickly, manage teaching materials more efficiently and



disseminate knowledge to students in a more engaging and interactive way. For example, using Google Classroom to manage assignments and discussions, or utilising learning videos on YouTube to explain certain concepts in Islam. By using these platforms, teachers can increase student engagement and provide more varied and accessible learning materials.

Digital literacy also includes the ability to teach students how to find credible and relevant information. In the digital era, information is plentiful and easily accessible, but not all information is accurate or trustworthy. Therefore, PAI teachers need to teach students to critically evaluate information sources, using verified sources such as scientific journals, articles from trusted educational institutions, or reputable websites. Teachers should also help students identify and avoid false, hoax or misleading information that can mislead their understanding, especially in the context of religious teachings. Thus, digital literacy not only strengthens technical skills but also enhances students' ability to think critically and responsibly in accessing and disseminating information.

## **2. Innovation in Learning:**

Innovation in learning is one of the main aspects that must be implemented by Islamic Religious Education (PAI) teachers in the digital era to answer the challenges of the times and improve teaching effectiveness. More interactive and technology-based learning approaches should be implemented to create a more interesting, creative, and appropriate learning atmosphere for the digital generation. Innovative approaches such as problem-based learning, collaborative learning, and project-based learning offer various benefits for students' skill development.

Problem-Based Learning is an approach that places students in real situations that require problem solving. In the context of PAI, teachers can propose problems related to the application of religious teachings in daily life, such as how to overcome challenges in worship in the midst of modernity or how religious values can be applied to overcome social problems. With this method, students not only learn religious theories, but also practice critical thinking skills, analyse situations, and find relevant solutions.

Collaborative Learning is an approach that emphasises cooperation between students. In the digital age, platforms such as Google Docs or Zoom allow students to work together even if they are not in the same place. This collaboration is important as it strengthens students' understanding of religious concepts through group discussions, sharing views and giving each other feedback. In addition, it teaches social, communication and co-operation skills that are much needed in the future world of work.

Project-Based Learning offers opportunities for students to apply their knowledge in real projects that are relevant to their lives. In the context of Islamic Education, students can be asked to work on projects that combine religious concepts with social solutions, such as creating an awareness campaign on interfaith tolerance or developing an app that facilitates Islamic learning. Through these projects, students can develop creative skills, critical thinking, as well as the ability to work independently and in teams.

By applying these approaches, PAI teachers can create more meaningful learning experiences and help students

develop 21st century skills that are much needed in their social and professional lives.

### **3. Building Honesty and Integrity:**

In this digital age of easy access to information, the biggest challenge for students is how to manage information ethically and responsibly. Information so easily found on the internet often contains unverified or even misleading content, so a good understanding of the importance of honesty and integrity in the use of technology is needed. In this case, Islamic Religious Education (PAI) teachers play an important role in teaching students to not only understand religious values, but also how to apply them in managing information in the digital world.

Teachers should set a good example of how to manage information ethically, such as teaching proper citation techniques. In a learning context, this means teaching students to refer to and cite the sources of information they use in their written work or presentations. This is not only important to prevent plagiarism, but also to teach students the value of honesty in sharing knowledge. Citing sources appropriately shows that we value the

work of others and are committed to making legitimate contributions in the academic world.

In addition, teachers also need to teach students how to filter correct and reliable information. In a world full of hoaxes and misinformation, the ability to distinguish between valid and invalid information is an invaluable skill. Teachers can guide students to evaluate information sources based on their credibility, for example by checking who published the information, the purpose of the publication, and whether the source is trustworthy or not.

Teaching students about integrity also involves applying religious values in a digital context. In Islam, for example, honesty is one of the key principles to uphold. Teachers can relate religious teachings to proper digital practices, such as avoiding plagiarism, not spreading misleading information, and sharing knowledge with good and sincere intentions.

By providing education that emphasises honesty and integrity in the use of technology, PAI teachers can help students build a strong character and give them the tools to face the

challenges of the digital world with responsibility and ethics.

#### **4. Improving Professionalism:**

In the rapidly growing digital era, it is important for teachers to not only master the teaching materials, but also continue to develop their professionalism, both in terms of religious knowledge and digital skills. A teacher's professionalism is key to improving the quality of education, especially in Islamic Religious Education (PAI), which must always be relevant to the challenges of the times.

One important aspect of improving professionalism is through continuous training and development. The ever-evolving world of education requires teachers to constantly update their knowledge and skills. This training is not only limited to improving understanding of religious teaching materials, but also skills in utilising technology. Teachers need to understand the various digital tools that can support the learning process, from online learning platforms to applications that facilitate classroom management and interaction with students. With proficient digital skills, teachers will be better able

to create a dynamic and effective learning environment.

In addition, ongoing training and development also includes an understanding of new technology-based learning methods. For example, teachers need to take part in training on problem-based learning (PBL), collaborative learning and project-based learning (PjBL) that have been widely implemented in the digital era. Teachers who continue to learn and adapt to the latest trends will be better equipped to deal with changes in the world of education and be able to meet the needs of students who are increasingly critical of technology.

By continuously improving their competence, teachers can make greater contributions to the world of education and scientific publications. In the context of PAI, this means that teachers not only transfer religious knowledge, but also contribute to enriching religious discourse through writings, articles or research that can be shared through various digital platforms. High professionalism allows teachers to play a more active role in developing knowledge and encouraging innovation in education.

Overall, improving teachers' professionalism not only impacts on the quality of teaching, but also on the contribution they can make in advancing religious education in the digital age.

The role and challenges of Islamic Religious Education teachers in scientific publications in the digital era are enormous. Teachers are not only tasked to teach religious values, but also to help students understand and utilise technology wisely. By developing digital literacy, learning innovation, and social sensitivity, Islamic Education teachers can be the change-makers who help students to develop into competent, creative, and responsible individuals in an increasingly digitally connected world.

Professional and innovative PAI teachers will be able to face the challenges of the digital world and utilise the opportunities available to make a greater contribution to the world of education, both in the local and global contexts. Therefore, it is important for all parties including the government, educational institutions, and the community to support teachers' efforts to develop their digital competencies and

facilitate them to contribute to the world of scientific publications.

### **Discussion**

Education in Indonesia is now entering a phase of significant transformation, which is in line with the development of information and communication technology. This new paradigm not only changes the way students learn, but also affects the way teachers play a role in education. One of the evolving concepts is the openness of information and increased access to knowledge sources. The INHERENT (Indonesia Higher Education Network) initiated by DIKTI and Jardiknas from Depdiknas are clear examples of this change (Sudiarta, 2007). Through this network, information that was previously locked in the hands of certain people can now be accessed by everyone in the network. This provides a great opportunity for the community, especially teachers, to participate in the creation and dissemination of knowledge.

Along with this development, the role of the teacher must undergo a shift from a conveyor of information to a knowledge reformer. Teachers not only transfer knowledge, but also function as

navigators who help students find and access various relevant and credible sources of information. In the digital era, teachers' ability to direct students in finding, evaluating and utilising information is crucial. Therefore, the existing learning paradigm should focus on discovery learning, where teachers help students to develop skills in finding information, analysing it and applying it to solve daily life problems.

### **Teacher as Learning Consultant**

In this digital era, the main challenge faced by Islamic Religious Education (PAI) teachers is how to utilise the available digital resources to enrich learning. As suggested by Sanjaya (2006), the role of teachers in digital learning is very diverse. One of them is as a learning consultant. As a consultant, teachers not only provide knowledge, but also assist students in selecting and using appropriate learning resources. Teachers must have the ability to match between students' needs and various learning resources available in cyberspace. In this case, teachers must have high digital literacy, which is the ability to search, evaluate, manage and share information effectively.

Teachers should also be able to understand how various digital platforms that can be used in learning work, such as learning videos, articles, e-books, and online discussion forums. In addition, PAI teachers need to use technology to increase students' access to religious materials that may have previously been difficult to access. In this case, digital literacy is not only about the ability to use technological tools, but also about how to manage and apply knowledge ethically.

Digitally literate PAI teachers will be guides who facilitate students to not only understand religious concepts, but also use them to face challenges in their lives. They should teach students how to find credible knowledge on the internet, as well as how to filter out invalid or false information. This role is crucial given the proliferation of unverified information circulating in the digital world.

As learning consultants, Islamic Religious Education (PAI) teachers are not only limited to providing theoretical knowledge, but also play a role in directing students to understand how they can obtain relevant knowledge through technology. Teachers should be

able to identify appropriate learning resources that are in line with the curriculum, and assist students in managing information from various digital platforms. By doing so, students can have access to a wider and more diverse range of materials, which are not only limited to textbooks or materials taught in class.

The role of teachers as consultants also requires them to understand the various digital platforms that can be used in learning, such as educational videos, scientific articles, e-books, podcasts and online discussion forums. This diversity provides opportunities for teachers to enrich students' learning experiences by giving them access to various forms of media that can deepen religious understanding. In this case, teachers not only direct students to the right materials, but also teach them to think critically in assessing the various information they encounter in the digital world.

In addition, PAI teachers should also introduce ways to find credible and reliable information, and teach the importance of filtering invalid or false information. In cyberspace, we are often confronted with information that can be

misleading or even hoaxes, which can undermine correct religious understanding. Therefore, teachers play an important role in guiding students not to get caught up in misinformation and to always use valid and reliable references.

To achieve this, teachers need to improve their digital literacy skills. Not only by mastering technology, but also by having skills in assessing the quality of information, managing data wisely, and using technology for educational purposes in an ethical manner. Teachers who have good digital literacy will be effective guides for students in utilising technology to enrich their knowledge, especially in understanding Islamic religious teachings more deeply and contextually. Thus, the role of teachers as learning consultants will be more relevant in this digital era.

### **Digital Literacy as a Condition for Success**

Digital literacy is a competency that cannot be ignored by teachers in the digital era. Digital literacy is not just about the ability to use technology, but rather the ability to effectively share knowledge, build and sustain digital learning communities. With strong

digital literacy, teachers can not only utilise technology for learning purposes, but also develop the ability to interact and share ideas and information with peers, students and the wider community.

Digital literacy also includes understanding how to build online learning communities. In a globally connected digital world, PAI teachers need to facilitate and be part of these communities. By building online learning networks, teachers can collaborate with other teachers to improve the quality of teaching and discuss certain topics in relevant religious contexts. This collaboration can result in scientific publications, articles, or even books that can contribute to a broader understanding of religion in society.

Teachers who have digital literacy will find it easier to find and share the latest scientific articles, publications and research in the field of religion that are relevant to their learning context. Thus, the Islamic Religious Education provided to students will be more up-to-date, rich and based on globally accessible knowledge.

Digital literacy not only focuses on the technical ability to use digital devices and applications, but also includes the ability to adapt to technological changes and utilise them to improve the quality of education. In the context of Islamic Religious Education (PAI) teachers, digital literacy is an important requirement so that they can make the most of digital resources. Digitally literate teachers will have the ability to not only access information, but also to manage and disseminate knowledge effectively. This is particularly important in an increasingly internet-connected world, where information can be accessed easily and quickly.

As the use of technology in learning increases, teachers should be able to utilise various digital platforms to share knowledge and collaborate with others. Knowledge sharing involves not only distributing teaching materials to students, but also building learning communities online. By having skills in building and sustaining digital communities, teachers can expand their networks, collaborate with fellow teachers or religious experts, and discuss certain topics relevant to the Islamic

Religious Education curriculum. This collaboration will enrich students' learning experiences and give them access to multiple perspectives in understanding Islamic teachings.

In addition, digital literacy also includes the ability to filter information in cyberspace, choosing what is relevant and accountable. In the context of religion, this is very important so that the material presented to students comes from valid and reliable sources. Teachers who understand the concept of digital literacy can ensure that the sources used in learning, whether in the form of scientific articles, videos or research, are reliable and in accordance with the correct religious teachings.

Furthermore, collaboration in online learning communities can also provide opportunities for teachers to produce scientific publications that can broaden religious insights in society. By joining an academic network or digital discussion forum, PAI teachers can not only share ideas and knowledge, but also contribute to the development of religious science that is more up-to-date and in accordance with the challenges of the times. Scientific articles published in this community can be a useful reference



for fellow educators, students, or even the general public in understanding various relevant religious topics.

By developing strong digital literacy, PAI teachers can enrich learning with more current and relevant information, while teaching students how to search and verify information effectively. This will provide students with invaluable skills in the digital world, allowing them to become more critical and responsible individuals in absorbing information from the virtual world. Digital literacy is not only a tool to improve the quality of teaching, but also a way to make Islamic education more dynamic and based on globally accessible knowledge.

### **Teachers' Role in Fostering Technology-Based Learning**

PAI teachers must adapt to the demands of the times that increasingly lead to technology-based learning. As a learning resource, teachers are expected to have a good command of the material and be able to communicate knowledge in a way that is easily understood by students, both directly in the classroom and through digital platforms. When students experience difficulties or need further clarification, teachers must be

able to provide answers that are quick and easy to understand, both in face-to-face and online contexts.

In addition, teachers also act as facilitators who facilitate the learning process. In this case, teachers are responsible for creating a conducive learning atmosphere, both in the physical classroom and in the digital space. As a learning manager, teachers are in charge of controlling the course of learning well. As a demonstrator, teachers show attitudes that can inspire students to develop positive attitudes and behaviours.

The role of teachers as motivators and elevators is also very important in the digital era. Given the challenges students face, such as limited access or distractions from social media, teachers must be able to foster students' passion for learning and help them reach their full potential. Effective teachers not only teach religious content, but also provide motivation for students to continue learning and innovating.

In this digital era, education is undergoing a major transformation with the development of information and communication technology. To keep up with these developments, Islamic

Religious Education (PAI) teachers need to adjust to the demands of the times that increasingly lead to technology-based learning. PAI teachers must be able to integrate technology in the learning process to ensure that learning remains relevant and effective. In addition, teachers are also expected to master the material taught well and be able to communicate it clearly and easily understood by students, both through direct interaction in the classroom and through digital platforms.

As a learning resource, PAI teachers must have adequate mastery of the material, so that when students experience difficulties or need further clarification, teachers can provide answers quickly and clearly. With various digital platforms that can be used to support the learning process, teachers should be able to utilise technology to deliver material in a more interesting and interactive way. For example, through learning videos, interactive presentations, or social media as a means of discussion. This also allows students to get additional information outside of formal learning time, providing opportunities for independent learning and deepening their understanding.

In addition, teachers also act as facilitators in technology-based learning. This facilitation is not only limited to teaching materials, but also includes creating a conducive learning atmosphere, both in the physical classroom and in the digital space. Teachers need to create an environment that encourages positive interactions between students, utilise technology to create more collaborative learning, and provide support when students face difficulties in utilising technology. With technology, teachers can also provide easier access for students to find relevant information and discuss learning materials more flexibly.

As learning managers, PAI teachers must be able to control the course of learning well, whether it is in the context of face-to-face learning or online learning. In the digital world, the biggest challenge is keeping students focused and ensuring that they truly understand the material being taught. Therefore, teachers need to have skills in managing time, interactions, and materials so that learning continues to run according to the plan and goals that have been set. As a demonstrator, PAI teachers also need to show attitudes that

can inspire students to develop positive attitudes, both in learning religious materials and in daily life. A good teacher not only teaches knowledge, but also models the behaviour and values he or she teaches.

The role of motivator and elevator is also very important in technology-based learning. With the huge challenges faced by students in the digital world, such as distractions from social media or lack of access to adequate technology, teachers must be able to foster students' passion for learning. Effective teachers do not only focus on teaching religious content, but also act as an elevator for students' passion to continue learning and developing themselves. Through a caring approach, strong motivation and creative ways of using technology, teachers can help students overcome these challenges and reach their full potential. As elevators, teachers help students to continuously improve by providing the support they need to achieve academic and personal success.

By using technology wisely and effectively, teachers can create learning experiences that are more engaging, relevant and accessible to all students. Technology-based learning also gives

students the opportunity to learn more independently, develop their digital skills and face the challenges of the digital world in a more effective way. Therefore, the role of teachers in fostering technology-enabled learning is crucial, both in facilitating, managing and motivating students in this increasingly connected world.

### **Challenges in Scientific Publication in the Digital Age**

The biggest challenge for Islamic Religious Education teachers in scientific publications in the digital era is the ability to adapt to new ways of sharing knowledge. The digital world offers various platforms for teachers to share their ideas and research, but the main challenge is how to maintain the quality and credibility of the information being shared. Scientific publication in the digital era requires a deep understanding of research methodology, as well as the ability to present research results effectively through various media such as articles, blogs or podcasts.

In this context, PAI teachers need to strengthen their skills in scientific writing and publish their research results in digital journals or other academic platforms. They should also be able to manage information on the internet

wisely, ensuring that the data they use is valid and accountable.

With more open digital platforms, teachers have more opportunities to contribute to the world of scientific publications. However, they must also be more careful in choosing sources of information, avoid plagiarism, and maintain the quality and originality of their scientific work.

The biggest challenge for Islamic Religious Education (PAI) teachers in the context of scientific publications in the digital era is the ability to adapt quickly to the ever-changing technological developments. The digital world provides various platforms that allow educators to share their knowledge and research results. However, the main challenge lies in how to maintain the quality and credibility of the information shared to a wider audience. In cyberspace, the information that circulates is very diverse, ranging from verified to unverifiable. Therefore, teachers need to be very careful in selecting information to publish and ensure that the material they present is based on valid research.

Scientific publications in the digital era require not only a deep

understanding of research methodology, but also skills in communicating the results of such research through various digital media, such as scientific articles, blogs, learning videos, or podcasts. With so many media available, PAI teachers need to choose the right media for their audience, as well as understand how to structure information in a clear, structured, and easy-to-understand manner. The ability to write well and effectively is crucial in this regard, as good research results will go to waste if they are not presented in an appropriate manner.

As part of the effort to strengthen their skills in research and publication, PAI teachers need to improve their scientific writing skills and publish their research in digital journals or trusted online academic platforms. This allows them to contribute more to the world of Islamic education, as well as reach a wider audience. On the other hand, it is important for teachers to have the skills to manage the information available online wisely. They must ensure that the information they use and share is valid, verified and in accordance with scientific principles.

Therefore, PAI teachers must be able to select credible sources and avoid using unverified information. Avoiding plagiarism and maintaining the originality of scientific work are also important aspects of maintaining the integrity of scientific publications. When PAI teachers publish their research results, they are not only sharing knowledge, but also building their credibility as trustworthy scientists and educators. Therefore, academic integrity must always be maintained, both in the process of research, writing, and publication.

With more open digital platforms, PAI teachers have greater opportunities to contribute to the world of scientific publications. However, the challenge of maintaining quality and credibility remains. Teachers need to continue to learn and adapt to new ways of communicating and presenting their research in order to have a significant impact on the development of Islamic education, both among fellow educators and the wider community.

The role of Islamic Religious Education teachers in the digital era is huge, not only in teaching religious knowledge, but also in utilising

technology to improve the quality of learning and scientific publications. Teachers must become navigators in the world of digital information, teaching students how to find, evaluate and use information wisely. In facing this challenge, teachers need to improve digital literacy, develop skills in technology-based learning, and adapt to new ways of sharing knowledge through scientific publications. Thus, PAI teachers can contribute to creating education that is more inclusive and relevant to the needs of the times.

#### **D. Conclusion**

The digital era has changed many aspects of education, including scholarly publishing. In an increasingly global and connected digital community, Islamic Religious Education (PAI) teachers face great challenges and opportunities in utilising digital platforms to share knowledge and enrich students' understanding. In order to maximise the potential of scholarly publications in the digital era, teachers need to adapt their approach to technological developments and more innovative learning methods. There are seven important roles that PAI teachers must play in the digital era, the

first of which is the teacher as a learning resource. Teachers are expected not only to master the religious material taught, but also to explain it in a way that is easy for students to understand, using various digital tools to convey information in a more interactive and interesting way. In addition, teachers also function as facilitators, helping students access relevant digital learning resources. As a manager, the teacher is responsible for creating a conducive learning climate in the physical classroom as well as in the digital space, as well as managing the interaction between students and existing resources. In addition, PAI teachers must also act as demonstrators, by providing examples of attitudes that can inspire students in their daily lives. Mentor is the next role, where teachers not only teach knowledge, but also direct students to discover and develop their potential. As a motivator, teachers need to provide encouragement to students so that they remain enthusiastic in learning despite facing many distractions in the digital world. Finally, the teacher acts as an evaluator, an evaluator who monitors students' progress and provides constructive feedback so that students continue to grow. One of the biggest

challenges faced by PAI teachers is the mismatch between educational products that still rely heavily on traditional tools with the needs and ways of learning of students who are already highly digitalised. Students today are used to accessing information quickly and easily through various digital sources, while many teachers still rely on conventional methods that are limited in speed and accessibility. This disconnect often makes it difficult for teachers to adapt to students' rapidly evolving needs. In addition, most teachers are still stuck in the 20th-century education paradigm, where the approach used is focused on one-way delivery of material, and pays less attention to developing students' critical and creative skills. In many cases, the learning process is still focused on quantitative achievement based on evaluation numbers and tests, without giving room for creativity or further exploration by students. This poses a big challenge for teachers in introducing more technology-based and interactive learning. To overcome this challenge, the education system must transform and be more responsive to the changes happening in the digital world. One important step is to provide more

in-depth training on the use of technology to teachers, so that they can use various digital tools to improve learning effectiveness. Teachers should no longer stick to a rigid and standardised curriculum, but need to be more flexible and innovative in their approach to learning. Teachers should also be trained to be able to assess learning success not only based on quantitative numbers, but also by considering critical skills, creativity, and the ability to access and use information wisely. On the other hand, PAI teachers can bridge the revolution in digital education by mobilising students to access wider learning resources and encouraging them to innovate. As a dynamator, teachers can monitor and direct students to develop their creativity and imagination by utilising various digital media. As evaluators and justifiers, teachers need to provide constructive feedback on students' findings, as well as assess and provide in-depth notes on students' understanding and development in the digital world. Thus, the teacher's role is not only limited to the teaching of religious content, but also to the formation of digital skills needed to face

the challenges of the times. Finally, to be able to contribute to scientific publications, PAI teachers must be able to integrate technology in all aspects of their learning. Teachers must have good digital literacy, be able to write and publish scholarly works online, and maintain the quality and credibility of the information they share. Through the proper utilisation of technology, PAI teachers can not only convey religious knowledge, but can also facilitate students to contribute to the scientific world more broadly, thus creating more dynamic and relevant learning.

#### **E. References**

- Abdullah, H. (2021). Digital Competence of Islamic Religious Education Teachers in Writing Scientific Works. *Journal of Islamic Religious Education*, 13(2), 77-91.
- Amin, M., & Hafidh, M. (2021). The Role of Islamic Religious Education Teachers in Improving Digital Literacy in Schools. *Journal of Islamic Education*, 13(1), 45-60.
- Aminah, S. (2020). Utilisation of Digital Technology for Scientific Publication by Islamic Religious Education Teachers. *Journal of Education and Technology*, 19(3), 82-95.

- Aulia, N. (2022). Improving the Ability of Islamic Education Teachers in Scientific Writing in the Digital Era. *Journal of Islamic Education and Technology*, 7(1), 59-73.
- Badrudin, S. (2022). Digitalisation of Islamic Education and its Challenges for Teachers in Indonesia. *Journal of Education and Learning*, 15(3), 189-204.
- Fauzi, A. F., & Mansur, T. (2019). Developing the Quality of Islamic Religious Education Teachers through Scientific Writing in the Digital Age. *Scientific Journal of Education*, 17(4), 213-230.
- Haris, Z., & Siti, M. (2019). Digital Literacy in Islamic Religious Education: Opportunities and Challenges for Teachers. *Journal of Islamic Religious Education*, 16(1), 45-57.
- Halim, A. (2022). The Role of Islamic Religious Education Teachers in Facing the Challenges of Digital Technology. *Journal of Religious Education Research*, 10(4), 205-221.
- Kamil, S. (2021). Islamic Religious Education Teachers and the Challenges of Scientific Publication in the Digital Age: A Case Study in Indonesia. *Journal of Educational Studies*, 14(2), 98-112.
- Kusuma, W. R., & Prasetyo, H. (2020). The Influence of the Digital Era on the Performance of Islamic Religious Education Teachers in Scientific Writing. *Journal of Islamic Education and Technology*, 14(3), 200-214.
- Latifah, F. (2022). Islamic Religious Education Teachers in the Digital Age: Opportunities and Constraints in Scientific Publication. *Journal of Education and Social Sciences*, 18(4), 152-165.
- Mansur, R., & Ali, R. (2020). The Role of Islamic Religious Education Teachers in the Digital Age: A Scientific Publication Perspective. *Journal of Islamic Religious Education*, 17(4), 142-157.
- Ningsih, L. P., & Hasan, I. (2022). Learning Islamic Religious Education in the Context of Scientific Publication in the Digital Age. *Journal of Educational Development*, 8(1), 34-47.
- Ramadhani, F. (2021). Implementation of Digitalisation of Islamic Education Learning and its Implications for Teachers. *Journal of Islamic Education Development*, 6(1), 112-125.
- Shamsudin, M. A. (2020). Challenges of Islamic Education in Online Learning and its Effect on Teacher Competence. *Journal of Educational Technology*, 12(2), 75-88.
- Wahid, H., & Yuliana, N. (2021). The Role of Islamic Religious Education Teachers in Scientific



Publications in the Era of the Industrial Revolution 4.0. *Journal of Education and Entrepreneurship*, 10(3), 52-69.

Wibowo, R. (2019). Islamic Religious Education Teachers in the Digital Age: Transformation of Learning and Scientific Publication. *Journal of Islamic Education Technology*, 6(2), 134-148.

Zainuddin, A. (2018). Islamic Religious Education in Digital Perspective: Opportunities and Challenges. *Journal of Modern Islamic Education*, 5(2), 122-138.

Yuniarti, D., & Abdullah, Z. (2020). Challenges for Islamic Religious Education Teachers in Digital Learning and Scientific Publications. *Indonesian Journal of Islamic Education*, 7(3), 58-70.

Sari, R. T., & Ramadhan, M. (2020). Challenges for Islamic Religious Education Teachers in Using Information Technology for Learning. *Journal of Islamic Religious Education*, 11(2), 112-125.