

Lecturers' Digital Readiness in the Context of Digital Scholarchy

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ABSTRACT. This study focuses on the digital readiness of lecturers at Islamic Religious Colleges (PTKI) in Jakarta and Banten in the context of Digital Scholarchy. The purpose of the study is twofold: firstly, to explore the attitudes and knowledge of lecturers regarding the use of digital technology, and secondly, to identify the digital literacy gaps among them. The data collection method uses questionnaires, interviews, and documentation to provide a more rigid and focused picture. The data analysis utilizes a range of approaches, including the Digital Readiness and Attitude Framework, the Technology Acceptance Model, and the Digital Literacy Framework, to uncover factors that influence the digital readiness of lecturers. The study's findings indicate that although there are positive attitudes towards technology, its understanding and practical use are still limited, resulting in a digital divide within the academic environment. The study's conclusions provide scientific contributions in the form of new understandings of the interplay between technology, culture, and psychology in the context of higher education by suggesting further research to explore the impact of socialization programs, training, and mentoring in the future. This study is the basis for formulating policies that are more adaptive and responsive to the needs of lecturers at PTKI Jakarta and Banten in this digital and disruptive era. The implications of this research highlight the need to develop training and mentoring programs to improve the digital skills of lecturers at PTKI Jakarta and Banten. These findings can also help build more adaptive policies and support changes in higher education in the digital era.

Keywords: *Lecturers' Digital Readiness, Digital Scholarchy, Islamic Religious Colleges, Digital Literacy, Technology Acceptance Model.*

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INTRODUCTION

In today's digital era, the penetration of information technology in Indonesia, especially in big cities such as the Special Capital Region of Jakarta (DKJ) and Banten, has increased rapidly (Jafari-Sadeghi et al., 2021; Kurniawati, 2022; Matyushok et al., 2021; Vu et al., 2020) and plays an important role in the education sector which functions to prepare future generations. However, despite this progress, there is a significant gap in digital readiness across institutions, especially in Islamic Religious Colleges (PTKI) (Akromusyuhada et al., 2023; Jamil, 2021; Lee, 2024; Okuonghae et al., 2022; Rahmat et al., 2022), where students and lecturers are still trapped in the traditional paradigm, even though technology-based learning is increasingly urgent (MAS et al., 2021; Munawir et al., 2024; Rapanta et al., 2021; Romli et al., 2022; Uzorka et al., 2021; Winoto, 2022). As one of

the important education centers in Indonesia, Jakarta has great potential to develop an adaptive and innovative educational environment through digital technology, as seen in developed countries such as the Group of Eight (G8), which show that technology integration in education can achieve better results (Chien et al., 2021; Mehmood et al., 2023; Tunsu & Alidrisi, 2023; Wang et al., 2024). Thus, the challenges in technology acceptance among educators, including lecturers, require serious attention to support digital readiness in PTKI. This study aims to explore more deeply about the digital readiness of lecturers in PTKI Jakarta, in order to provide an overview and recommendations to improve the use of technology in education.

Previous studies have highlighted and explored the relationship between teaching effectiveness and digital readiness, but many have neglected the specific context of Islamic Higher Education Institutions in Jakarta and Banten. Studies by several academics have shown that sociocultural components play an important role in technology acceptance (Al-Dokhny et al., 2021; Al-Emran, 2023; Eppard et al., 2021; Hamutoglu, 2020; Kim & Lee, 2024). However, few studies have focused on how lecturers at Islamic Higher Education Institutions in Jakarta accept and utilize digital technology in their Tridharma activities, especially their teaching. There is a "gaping" gap to understand better the digital literacy gap among Islamic Higher Education Institution lecturers, significantly when religious and cultural interactions also influence technology adoption. This research paper explores lecturers' attitudes and knowledge towards digital readiness as an aspect often overlooked in the literature. Meanwhile, adequate Digital Scholarchy is required to be able to bridge the gap and improve the quality of teaching (Abd. Wahab et al., 2023; Aliyyah et al., 2024; Azad, 2024; Nurdin et al., 2024). Of course, this will significantly contribute to the professional development of lecturers' careers in specific educational environments such as the Special Region of Jakarta (DKJ) and Banten, which continue to develop.

This research aims to identify and analyze the main issue concerning the digital readiness of lecturers at PTKI in Jakarta and Banten, namely the "lack of understanding and acceptance of technology among lecturers" which can hinder the integration of technology in teaching. While there is a gap in digital literacy within the PTKI context, the problem this study seeks to address is "how lecturers' attitudes toward technology influence their ability to effectively utilize technology in the learning process". By adopting this approach, the research aims to provide new and measurable insights that contribute to decision-making in developing digital education policies in Jakarta. Using a data triangulation method that combines documentation, questionnaires, and interviews, it is hoped that the research findings will accurately reflect the existing realities in the field.

The hypothesis proposed in this research paper is that there is a positive relationship between lecturers' attitudes towards technology and their level of digital readiness. Lecturers with a proactive and positive attitude towards digitalization must express and present better knowledge and skills in integrating technology into teaching to improve quality. In addition, this research paper also anticipates that psychological, cultural, and social factors contribute to differences in digital readiness among lecturers at PTKI in Jakarta individually. If this hypothesis is proven, it will emphasize the importance of digital training and development tailored to the existing educational and cultural context. This research is intended to be an initial step in formulating a more effective training strategy for lecturers at PTKI in terms of policy and technical aspects by encouraging them to be better prepared to face the challenges of education in this disruptive digital era.

METHOD

The research design used was qualitative-quantitative, which combined qualitative and quantitative data approaches to produce more complete information supported by established primary sources. The digital readiness of lecturers as formal objects in this study allowed for in-depth thematic analysis of lecturers' attitudes and knowledge. Therefore, it can be stated that while both approaches (qualitative and quantitative) are utilized, this study primarily emphasizes the qualitative aspect to investigate the dynamics of digital readiness among lecturers at PTKI in Jakarta and Banten in depth. At the same time, the quantitative approach strengthened the results through

rigid and accurate numerical data. The selection of qualitative-quantitative design provided space for more thematic and in-depth exploration without ignoring the need for verifiable data. Technically, the work process of this design included collecting initial data to design appropriate research instruments, such as interview guides and questionnaires. After the instruments are compiled, data will be collected from several PTKI in Jakarta and Banten (as seen from the Google Form results) to obtain various views and practices. This combination of data allowed for synergistic insights and knowledge between the two approaches (qualitative and quantitative) to produce more detailed (robust), accurate, and comprehensive findings. The primary sources in this paper were concentrated on data generated from measuring the readiness of lecturers' attitudes and knowledge. This data was selected based on the contribution of direct views on the dynamics of lecturers at PTKI Jakarta and responding to the obstacles and demands of digitalization in Education, especially teaching. The context of formal and material objects in this study helps link the results to existing analytical theories so that they can explain conditions in the field more thematically and realistically.

Meanwhile, the selection process includes compiling a questionnaire allocated to lecturers through the Google Form application and arranging interviews to add weight to the information through Microsoft Word on the Whatsapp application. Applying this technique triggers a comprehensive presentation of the condition of lecturers' digital readiness as a reminder that a thematic-in-depth understanding of attitudes and knowledge underlies the effectiveness of adopting relevant academic technology. The results of this primary source will form the basis for further analysis in this study.

Three data collection techniques were carried out: questionnaires distributed through documentation, questionnaires via Google Forms (85 online survey respondents), and digital interviews (two online interview respondents). The selection of these techniques began with the need to obtain valuable and diverse data covering quantitative and qualitative aspects of the lecturers' academic career experiences. Furthermore, documentation, such as local-national policy documents and existing syllabi, became essential and additional sources for understanding the context of applying relevant technology in the academic environment. The process of selecting these three techniques was arranged by considering and deciding on ease of access and effectiveness in exploring relevant information in an efficient time frame. Combining these three techniques certainly affects the data obtained to reveal and present the reality of lecturers' digital readiness more broadly and informatively.

In this study, the target population consists of lecturers at PTKI in Jakarta and Banten, with a sample of 85 respondents who completed the online questionnaire via Google Forms and two respondents who were interviewed through WhatsApp using a structured list of interview questions documented in a Microsoft Word file. The questionnaire was crafted to collect quantitative data regarding lecturers' attitudes and knowledge about digital readiness, while the interviews were aimed at obtaining deeper qualitative insights. The interview duration was scheduled for approximately 30 to 45 minutes per respondent, allowing sufficient time for an in-depth exploration of the lecturers' experiences and challenges in technology integration. By selecting appropriate and clear data collection techniques, this research aims to create a comprehensive and accurate picture of lecturers' digital readiness.

Each data analysis approach in this study is explicitly designed to address the identified research questions regarding the "lack of understanding and acceptance of technology among lecturers" and how "lecturers' attitudes toward technology influence their ability to effectively utilize that technology". The first stage is the Digital Readiness and Attitude Framework by Jan Van Dijk (A. J. A. M. Van Deursen & Van Dijk, 2014, 2019; A. J. Van Deursen & Van Dijk, 2015; Van Dijk, 2020; Van Laar et al., 2017, 2019, 2020), which is based on a sociocultural approach to understanding individual attitudes towards technology. The purpose of the analysis in this stage is to identify and evaluate individual factors, such as social, psychological, and cultural, that influence lecturers' attitudes towards adopting digital technology, as well as to measure their level of digital

readiness through a prepared online survey. The second stage is the application of the Technology Acceptance Model (TAM) by Viswanath Venkatesh, which focuses on understanding the perception of usefulness and ease of adoption or utilization of technology (Goyal et al., 2022; Venkatesh, Davis, et al., 2023; Venkatesh et al., 2003, 2012, 2016, 2017, 2022, 2024; Venkatesh, Weng, et al., 2023; Venkatesh & Bala, 2008). Through this second stage, the actions that will be taken are to distribute an online questionnaire to measure lecturers' perceptions of the ease of use of technology and analyze the data obtained to understand the influence of these perceptions on the acceptance of technology in classroom teaching and even its utilization. The third stage is based on the Digital Literacy Framework by Renee Hobbs, which prioritizes digital literacy in the context of teaching; the analysis at this stage is to explore lecturers' understanding of the digital literacy skills needed and the relationship between technology implementation and digital literacy in their teaching experiences (Hobbs, 2005b, 2005a, 2011; Hobbs et al., 2007, 2011). All data generated from these three stages are carefully reviewed within a textual and contextual framework to confirm and prove that the analysis is thematic, in-depth, and measurable to produce new knowledge about the digital readiness of lecturers at PTKI Jakarta and Banten.

RESULT AND DISCUSSION

Results of Digital Readiness and Attitude Analysis on PTKI Lecturers

To measure lecturers' attitudes towards digital technology, we developed a questionnaire focused on the frequency of use of artificial intelligence (AI) devices and applications. Data from the online questionnaire revealed that most respondents rarely accessed the AI technology provided, except for ChatGPT, the most frequently used tool. As a plagiarism-checking system, Turnitin was also used with moderate frequency by respondents (lecturers at Islamic Religious Colleges in Jakarta and Banten, PTKI). At the same time, other tools such as Grammarly, Canva, and Gemini were accessed by more than 25% of respondents, but technologies such as TomeAI, Thinkster Math, and Heygen were rarely used. This illustrates a general trend where access to and utilization of AI technology in academic practice is still low among lecturers at PTKI Jakarta and Banten. The reliance on only two popular tools is (possibly) due to the publication revolution and academic regulations that encourage their use in research reporting. Meanwhile, awareness and understanding of the importance of new technology in education do not appear to be optimally integrated into lecturers' daily Tridharma (Higher Education) habits.

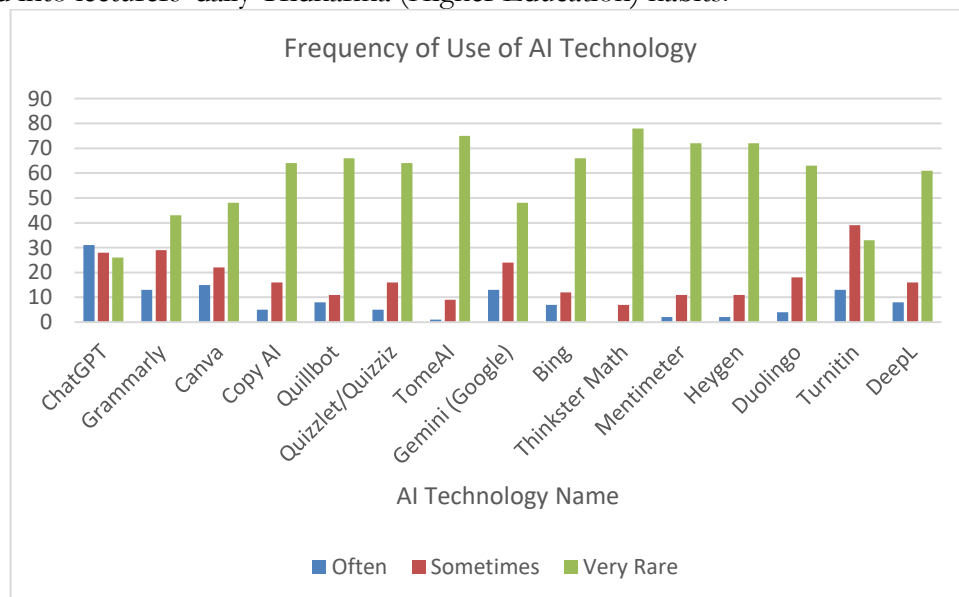


Figure 1. The Frequency of Utilisation of AI

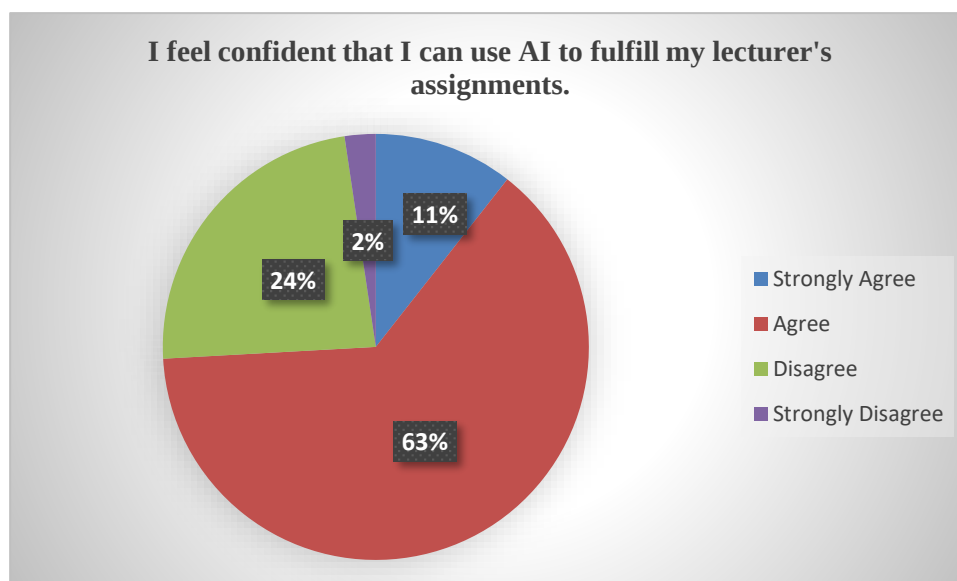


Figure 2. The Confidence in the Use of AI in Fulfilling Lecturer Tasks

Interviews conducted with lecturers sparked a new dimension in understanding their attitudes and digital readiness. One of the lecturers at Universitas Muhammadiyah, Prof. DR. HAMKA (UHAMKA) Jakarta, Toto Tohari, said that the use of AI has made it easier to find teaching materials, which provides testimony that there is awareness of the benefits of this technology in the academic environment. However, the essence of digital readiness lies not only in using tools but also in understanding the challenges and influences accompanying it. In her answer, Aselina Endang Trihastuti (lecturer at the Minhaajurrosyidiin Islamic College, STAIMI Jakarta) appreciated that the existing devices and infrastructure are pretty supportive. However, challenges such as network quality are often faced in daily practice. This proves that even though there is a willingness to use new technology, environmental and infrastructure aspects remain the determining factors in the effectiveness of its use. The results of this interview support the view that digital readiness must be studied not only from a technical perspective but also from a cultural perspective and existing system support.

Table 1. Lecturers' Views on Attitudes and Digital Readiness

No.	Name	View
1.	Toto Tohari	AI has supported the ease for lecturers in helping to find data for teaching materials for students
2	Aselina Endang Trihastuti	Personally, the devices and access are quite adequate and not problematic

Source: Interview with two respondents

Interestingly, analysis of the questionnaire data revealed that although the majority of PTKI lecturers in Jakarta and Banten have limited access to various AI technologies, they show a high level of confidence in using AI to complete academic tasks related to Tridharma (teaching, research, and community service). Up to 65% of the lecturers who responded felt they had sufficient confidence in utilizing this technology, while 24% felt less confident. Meanwhile, in an interview, Toto Tohari reflected on his ethical challenges, such as reduced creativity due to dependence on digital tools, so he advocated the development of more frequent and controlled literacy in reading and writing culture. This shows that to improve digital readiness, it is necessary to balance the use of technology with strengthening traditional academic practices and skills. Aselina Endang Trihastuti emphasized that infrastructure challenges, such as unstable internet networks, are the

main obstacles lecturers face when optimizing digital technology. Therefore, recommended strategies include gradual training and a greater focus on developing critical literacy and infrastructure improvement programs so lecturers can utilize AI technology more effectively in their teaching.

Table 2. Lecturers' Views on Limited Access to Various AI Technologies

No.	Name	View
1.	Toto Tohari	AI has a negative impact, namely the lack of creativity and innovation for lecturers naturally, meaning that it does not maximize the literacy of critical reading and writing culture. So, the way to not be dependent on AI is not to make AI a priority in facilitating the preparation of lecture teaching materials. Return to the culture of literacy in reading reference books
2.	Aselina Endang Trihastuti	The challenges are unstable internet networks and many different AI providers.

Source: Interview with two respondents

Results of Technology Acceptance Model on PTKI Lecturers

The online questionnaire data revealed key information that most lecturers at PTKI Jakarta and Banten felt confident in the ease of use of the available AI technology to support their academic activities. More than 60% of respondents agreed that these tools were easy to learn and operate, with 66% admitting that the existing features were apparent so they did not confuse when used. In addition, 64% of respondents felt that AI technology did not require excessive technical support, making it more democratized in the context of its use. Interestingly, the statement regarding the accessibility of technology for all ages proved that 56% of respondents believed that anyone could use the tool without having to worry about age differences. The data obtained also showed that most lecturers agreed that integrating AI tools with other applications was relatively smooth, providing additional adaptation convenience. Therefore, this finding shows that lecturers have supported AI technology, as evidenced by the positive response to the ease of use index.

Table 3. Confidence in the Ease of Use of AI Technology Available to Support Lecturers' Academic Activities

Statement	Response			
	Strongly Agree	Agree	Disagree	Strongly Disagree
How AI technology used for lecturers' academic activities works is easy to learn	13	66	6	0
The AI interface and features that I know are very easy to understand as well as operate	8	66	10	1
It does not take long to learn how AI works, which is <i>trending</i> in academia.	11	66	8	0
The use of AI technology does not require many technicians to operate it	12	64	9	0
Integration of AI features with other applications works well	13	62	8	0
AI can be operated for activities by lecturers regardless of age	13	56	16	0

Through the interviews conducted, the assessment of the support provided by institutions for technology adoption increasingly adds new dimensions to the understanding of lecturers' digital readiness. Resource person Toto Tohari said that universities provide various opportunities for lecturers to improve their skills through research and teaching, especially by utilizing modern digital technology that is almost perfect for assisting academic tasks. This kind of support, which includes

training and resources, is necessary to successfully adopt new technologies in the Islamic Religious Colleges (PTKI) in Jakarta and Banten. Aselina Endang Trihastuti noted that the training only focused on several types of AI that are already known, such as ChatGPT and Jeni, which shows that there is room to increase awareness of more AI technology options. Although the introduction of technology is critical, the lack of socialization (both from the campus and the local government to the relevant central government) about the optimal benefits of various AI technologies is an obstacle to implementation in the classroom. Thus, support from the institution (where the lecturer in question works) needs to be strengthened with a more comprehensive training program to improve lecturers' skills and understanding of these tools.

Table 4. Lecturers' Views on Assessment of the Support Provided by Islamic Religious Colleges for the Adoption of Technology

No.	Name	View
1.	Toto Tohari	Universities allow lecturers to develop themselves through teaching, research, and community service through various disciplinary approaches and skill approaches using technology. Moreover, today's technology is designed with artificial intelligence (AI), which is almost perfect for helping lecturers and students do their scientific assignments
2	Aselina Endang Trihastuti	In our institution, training is held on the use of types of AI that are already familiar to the community (ChatGPT and Jeni)

Source: Interview with two respondents

In a more focused analysis of the perception of the usefulness of AI technology, most lecturers, as respondents, showed an upbeat assessment of the efficiency and productivity offered by this digital tool in supporting their academic work. Questionnaire data proves that 58% of respondents agree that AI technology can be used in almost all aspects of their academic work. In comparison, 63% feel that this tool is handy when faced with high busyness levels. More than 50% of lecturers are willing to install and use AI technology on their devices even though they have to subscribe. Of course, this indicates an awareness of the long-term benefits presented by this digital technology. In an interview, Toto Tohari proposed the need for more massive socialization of the benefits and impacts of AI technology to ensure adequate understanding among lecturers and students. Meanwhile, Aselina Endang Trihastuti strengthened this argument with the view that training on various types of existing AI must be updated and expanded. Thus, the results of this analysis recommend the need for increased understanding and continuous training so that the use of AI technology can be increasingly optimal in improving lecturers' academic performance.

Table 5. The Perception of the Usefulness of AI Technology

Statement	Response			
	Strongly Agree	Agree	Disagree	Strongly Disagree
AI technology can be used in almost all types of lecturer work.	7	8	18	2
AI technology is invaluable for lecturers when they are pressed for time.	16	3	6	0
I will constantly use AI technology for academic purposes during my teaching career.	8	7	26	2
I will install AI in all my tech devices.	4	1	27	3
I am willing to pay for certain AI subscriptions that facilitate lecturers' academic tasks.	3	1	26	5
I have subscribed to one or more AI technologies because they make my tasks as a lecturer easier.	5	0	35	5
I have applied for certain AI subscriptions to the institution to improve the productivity of academic activities.	3	5	39	0

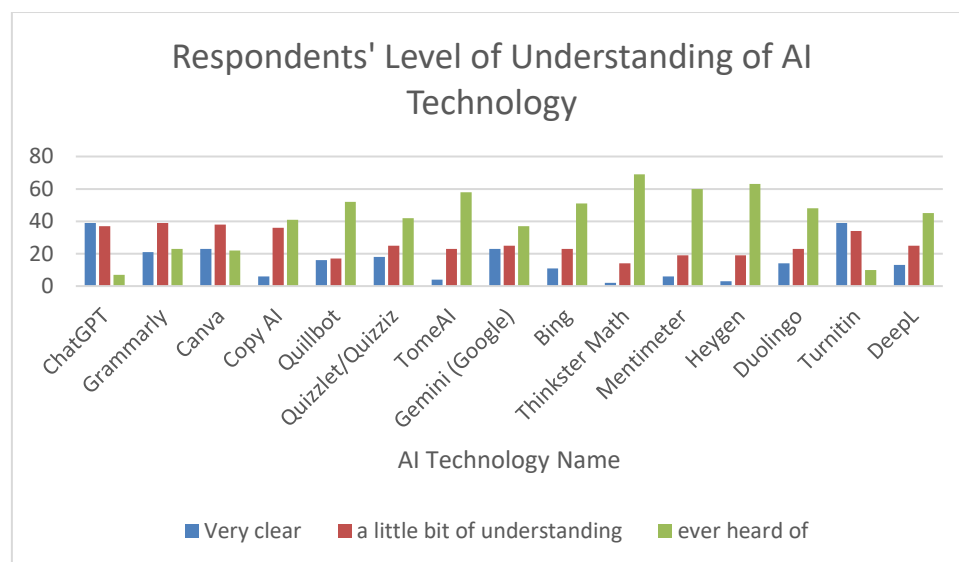
Table 6. Lecturers' Views on the Awareness of the Long-term Benefits Presented by this Digital Technology

No.	Name	View
1.	Toto Tohari	Socialization through seminars or other forms related to the benefits impacts of technology, especially the use of AI, needs to be mass disseminated so that all users, lecturers, students and others can utilize effectively according to their needs.
2.	Aselina Endang Trihastuti	Training and updates on various types of AI.

Source: Interview with two respondents

Results of Digital Literacy Analysis on PTKI Lecturers

Through the survey, most lecturers who were respondents declared a fairly adequate positive understanding of the use of digital tools, where ChatGPT and Turnitin were the two most well-known and understood products. Around 20-25% of respondents reported having comprehensive knowledge of Grammarly, Canva, Quizzlet, and Gemini, reflecting their involvement in using these digital tools in academic activities. On the other hand, the majority of them had only heard of products such as Copy AI, Quillbot, TomeAI, Bing, Thinkster Math, Mentimeter, Heygen, Duolingo, and DeepL, which explains that the use of digital tools is still limited to big names and common among lecturers. This represents a gap in exploring and utilizing various digital-online applications that can support the learning process. The existence of a higher understanding of these populist tools emphasizes that awareness of digital scholarship needs to be improved through more targeted, frequent, and impactful training. With the right approach, lecturers can become more skilled in adapting new technologies to support their academic activities.

**Figure 3.** The Fairly Adequate-positive Understanding of the Use of Digital Tools

Analysis of fundamental knowledge in AI technology shows that more than 60% of respondents feel they understand the basic concepts of this technology. However, almost 30% of them do not affirm the ability to define existing fundamental terms. However, none of the respondents denied having a basic understanding of the concept, which suggests and describes the potential to build their digital literacy further. Meanwhile, more than 70% of lecturers and respondents believe they can overcome digital-online technical problems that arise when using AI

technology to support academic needs while reflecting a fairly adequate positive level of confidence and competence in overcoming existing challenges. This finding describes that although there are some gaps in understanding, there is a strong readiness to overcome the challenges of digital-online technology faced in everyday practice. Strengthening digital literacy competence will be a strategic step to encourage using AI more effectively in academic environments. By expanding training and education around basic concepts and practical use of digital-online tools, the potential of lecturers to contribute to innovation in learning can be stimulated and even developed.

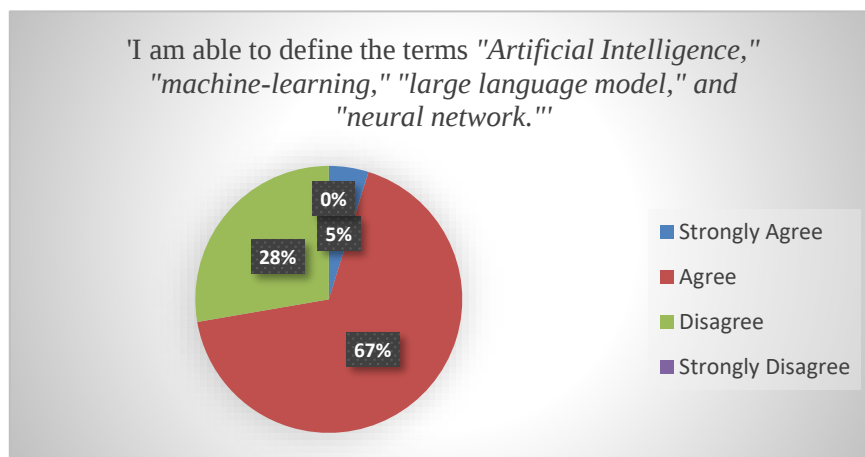


Figure 4. The Fundamental Knowledge in AI Technology

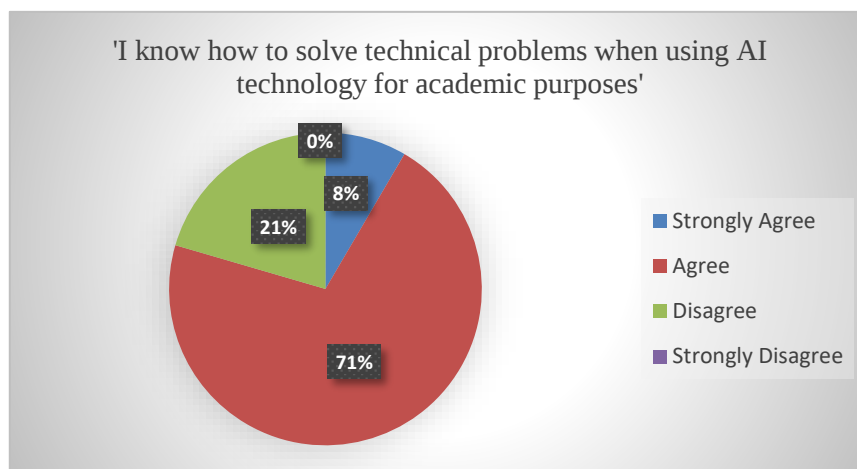


Figure 5. The Fairly Adequate-positive Level of Confidence and Competence in Overcoming Existing Challenges

In the interview, resource person Toto Tohari explained that although he was familiar with several AI products such as ChatGPT and Turnitin, he only relied on these tools as an aid and did not make them the primary tool in teaching. This indicates the lecturer's awareness of continuing to use critical thinking and evaluating existing resources to provide quality teaching materials. Aselina Endang Trihastuti, in the same interview, firmly admitted that although technology is often used, cross-evaluation is still needed to produce accuracy and focus in teaching while avoiding plagiarism (which is possible through paraphrasing). Both agreed that digital literacy is a fundamental component for utilizing and adopting electronic resources more effectively, and training programs that focus on increasing competitiveness in teaching must be developed. Toto Tohari also suggested and even encouraged universities to provide space for lecturers to upgrade and develop relevant digital technology knowledge because this would strengthen the delivery of

teaching materials to students. Plans to implement more comprehensive training can help present an academic environment responsive to the development of digital-online technology, which will undoubtedly improve the overall quality of learning.

Table 7. Lecturers' Views on the Lecturer's Awareness in Providing Quality Teaching Materials

No.	Name	View
1.	Toto Tohari	I know only a few of them, including ChatGPT, Turnitin, DeepL, and Google Scholar, related to these AI technology products; sometimes, I use them to help make assignments for teaching materials for students. However, I do not use them or make them the main thing.
2.	Aselina Endang Trihastuti	Yes, I use them quite often. However, cross-checking must still be done to be more logical focused and more innovative in using them to avoid plagiarism.

Source: Interview with two respondents

Discussion

This study finds that the “digital readiness” of lecturers at PTKI in Jakarta and Banten varies, with 65% of respondents feeling confident using AI technologies in their academic work. This finding aligns with the “Technology Acceptance Model (TAM)” by Venkatesh et al. (Goyal et al., 2022; Venkatesh, Davis, et al., 2023; Venkatesh et al., 2003, 2012, 2016, 2017, 2022, 2024; Venkatesh, Weng, et al., 2023; Venkatesh & Bala, 2008), which asserts that perceived ease of use significantly contributes to technology acceptance. However, the results also indicate the presence of “cultural and infrastructural barriers”, which supports Al-Emran's (Al-Dokhny et al., 2021; Al-Emran, 2023; Eppard et al., 2021; Hamutoglu, 2020; Kim & Lee, 2024) findings on the importance of social factors in technology adoption in higher education. This connection emphasizes that “social and psychological factors”, as highlighted in the “Digital Readiness and Attitude Framework”, play a critical role in shaping lecturers' attitudes toward technology, especially in the context of Islamic education in Jakarta and Banten, where cultural and religious interactions may influence digital readiness.

The interpretation of this study's results indicates a “strong connection between quantitative and qualitative findings” concerning lecturers' digital readiness. The survey results show that 65% of respondents feel confident using AI technologies, providing a positive outlook on attitudes and technology adoption among lecturers. However, the qualitative interviews reveal significant challenges, such as a lack of effective training and socialization, leading to underutilization of other digital tools. Additionally, the social and psychological factors identified through qualitative analysis demonstrate that “despite a high desire to adopt technology, cultural and infrastructural barriers significantly impact its implementation” in the field, supporting findings from the “Technology Acceptance Model (TAM)”. By integrating results from both approaches, it can be concluded that to achieve optimal digital readiness, better learning strategies and comprehensive institutional support are required to enhance lecturers' understanding and skills regarding the available digital technologies.

Referring to the Digital Readiness and Attitude Framework by Jan Van Dijk, the results of this study reflect how social, psychological, and cultural factors can influence lecturers' attitudes towards digital technology in the context of education at Islamic Religious Colleges (PTKI) in Jakarta and Banten. Lecturers' knowledge and experience in digital tools trigger the social background that shapes their attitudes towards technology adoption. Meanwhile, the Technology Acceptance Model (TAM) determines that perceptions of ease and usefulness play a positive-productive role in determining the extent to which technology is accepted in the classroom. The finding that more than 60% of respondents know and understand the basic concepts of AI technology indicates a strong foundation for efforts to improve the application of this technology. However, challenges in conceptual understanding by around 30% of lecturers and respondents at PTKI Jakarta and Banten explain the need to strengthen this literacy aspect, which should be the focus of socialization, training, and technical assistance that will impact the future. On the other

hand, the Digital Literacy Framework by Renee Hobbs distributes a clear context regarding digital literacy that lecturers must master in order to be able to utilize technology in their teaching. The results of this study describe that the development of social support and formal education can help create a better environment for adopting digital technology in PTKI.

The findings of this study have productive and far-reaching implications for the development of educational policies and practices in PTKI Jakarta and Banten, which should be considered within a global and future context. First, there is a crucial need to acknowledge the “continuous” socialization and training in digital technology and artificial intelligence for lecturers, with programs tailored to their specific requirements. Moreover, higher education institutions must enhance support regarding access to digital resources and necessary tools, aligning with global trends in equity-based budgeting and resource allocation. Improving lecturers’ ability to understand and implement technology will enhance the quality of learning and the effectiveness of offline, online, and hybrid teaching, consistent with best practices adopted by international educational institutions (Barirohmah et al., 2021; Baso & Alwy, 2023; Jie & Kamrozzaman, 2024). This study emphasizes that technology adoption cannot be separated from social support factors, meaning collaboration among lecturers, information technology units, and administration in higher education institutions is vital. Given the global context, where educational digitalization is continually evolving, increasing digital literacy among lecturers can empower them as agents of innovation and change in higher education (Sholichuddin et al., 2023). Overall, these implications reflect that digital transformation in higher education requires a comprehensive, sustainable, and impactful approach, with the active participation of all stakeholders to effectively address the future challenges faced by education systems.

Based on the findings and discussions presented previously, the formulated action plan focuses on improving digital literacy and expanding access and support for technology adoption among PTKI lecturers in Jakarta and Banten as a region. First, establishing a structured socialization and training program designed to improve lecturers’ knowledge and skills in AI and digital technology must be a top priority in the policies of higher education units and KOPERTAIS (Coordinator of Islamic Religious Higher Education). Furthermore, a mentoring system that involves more experienced lecturers who use technology to guide their colleagues on the same campus or other campuses that are less familiar with digital tools should be implemented. In addition, there needs to be collaboration between universities and technology providers to hold socialization, routine workshops, distribution of relevant and impactful research results, seminars, learning sessions, and mentoring that educate lecturers about meeting applications in an academic context. No less important, the policy for procuring adequate technological devices and resources in the higher education environment independently or by merger must be strengthened, which follows research results that show gaps in accessibility. These steps attempt to create an innovative and effective learning environment that supports lecturers in optimally utilizing the development of digital technology in teaching and research (part or all of the Tridharma of Higher Education).

CONCLUSION

One of the most important findings of this study is the significant gap between lecturers’ positive attitudes toward technology and their ability to integrate digital technologies into their daily teaching practices. This research uniquely focuses on the context of PTKI in Jakarta and Banten, highlighting dynamics that have not been extensively examined before, particularly regarding the influence of social and psychological backgrounds on lecturers’ assessment of digital technologies. Although most lecturers reported an understanding of digital tools such as ChatGPT and Turnitin, significant challenges in effectively applying these tools in teaching were evident. This study reveals that despite a willingness to learn and adapt, a limited understanding of various technologies often serves as a significant barrier. These findings are crucial for encouraging higher education institutions to provide relevant training and better access to digital resources, offering fresh insights into the digital readiness of lecturers who have previously received little attention.

The scientific contribution of this study lies in developing an in-depth understanding of the digital readiness of lecturers in the Jakarta and Banten PTIKI environments by paying special attention to the existing cultural and social contexts. This study presents a new perspective that distinguishes between lecturers' attitudes towards technology and their ability to implement the technology practically, even on a frequent daily frequency. Thus, the novelty of this research paper includes providing a more detailed analytical model that considers the various factors that influence digital readiness, in contrast to previous studies that often focus on only one or a few dimensions. With these findings, corrective measures can be implemented to improve the capabilities of lecturers at PTIKI Jakarta and Banten while making them more prepared to face challenges in the digital era.

Although this study provides meaningful insights, several limitations and shortcomings must be acknowledged honestly and fairly. One of the most striking limitations is the sample size and scope (85 online survey respondents and two online interview respondents), which may not fully represent all lecturers at all PTIKI in Jakarta. Although data triangulation methods have been carried out, the data collected is still limited to the views of individual respondents, which may not reflect the overall experiences and perspectives of lecturers at PTIKI Jakarta and Banten. Therefore, future research should prioritize longitudinal studies involving more variables and broader and more diverse samples for more comprehensive results. In addition, further research is also proposed to investigate the concrete impact of the training program designed based on the findings of this initial study. With these steps, a clearer picture can emerge regarding the digital readiness of lecturers to support more effective educational transformation at PTIKI Jakarta and Banten.

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