Rethinking Technology-Based Islamic Boarding School Education Management

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Abstract

Keywords:
Technology;
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The aim of this research is to look at the governance of technology-based Islamic education at the madrasah level in the city of Medan, namely Madrasah Ibtidaiyah Al Quba. The study of this research uses qualitative research methods. Methods of data collection using interviews, observation and documentation. Interviews were conducted with teachers and students. The results of the study show that governance at the Al Quba Ibtidaiyah madrasah level, Medan is a significant matter because along with changing times, technology cannot be avoided, so if there are madrasas that do not keep up with the times, they will be left behind by other schools. What's more, schools are currently the same as competing to get students, so technology is the main source for introducing schools to outsiders.

Abstrak

Kata kunci:
Teknologi;
Pondok Pesantren;
Manajemen
Pendidikan.

Tujuan dalam penelitian ini adalah untuk melihat tentang tata kelola pendidikan Islam berbasis teknologi pada tingkat madrasah yang berada di kota Medan, yakni Madrasah Ibtidaiyah Al Quba. Kajian dari penelitian ini menggunakan metode penelitian kualitatif. Metode pengumpulan data menggunakan metode wawancara, observasi dan dokumentasi. Wawancara dilakukan kepada guru dan siswa. Hasil penelitian menunjukkan bahwa tata kelola pada tingkat madrasah Ibtidaiyah Al Quba, Medan merupakan hal yang signitifkan, yang dikarenakan seiring dengan perubahan zaman maka teknologi tidak dapat dielakkan, sehingga jika ada madrasah yang tidak mengikuti perkembangan zaman, maka akan ketertinggalan dengan sekolah lainnya. Lebih-lebih lagi sekolah saat ini sama juga dengan persaingan untuk mendapatkan siswa, sehingga teknologi menjadi sumber yang utama untuk memperkenalkan sekolah pada masyarakat luar.

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INTRODUCTION

Educational institutions, incredibly both public and religious schools, must play a more significant role in preparing the younger generation to be able to replace the role of sustainable development.[1] Islamic education in the modern era and advances in information and communication technology must undoubtedly take part in progress. Likewise, the development of religious education in Islamic schools or boarding schools was always associated with the Qur'an and the thoughts of the scholars. However, in today's increasingly advanced technological world, strengthening education in modern Islamic school students will benefit Muslims.[2] In the sense that the millennial Muslims of today will gradually use technology to advance modernist ideals. The tendency is to keep in mind that the Islamic generation will be able to continue living a conservative life that is based on Islamic values and will have a heritage that is rich in majesty and wisdom. Muslims will not be able to take advantage of the advantages and benefits of technology if it occurs outside of Islam[3]

The fact that Islamic religious education does not play a significant role in the growth and development of the Islamic generation will upset anyone who is part of the older generation of Muslims. This is nothing more than a guide to the good life when a generation lives in the modern world but still adheres to conservative values, noble personalities, and healthy intellectual and spiritual character.[4] Says that there are two parts to the traditional education system; religious education, also known as pesantren, is run by the community; modern education, on the other hand, is run by the state and is governed by the instructions in full. As a result, Islamic school administrators now have a chance to help their students prepare for better Islamic resources and a better Muslim community.[5]

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[1] Jean M. Twenge, *Generation Me - Revised and Updated: Why Today's Young Americans Are More Confident, Assertive, Entitled--and More Miserable Than Ever Before* (Simon and Schuster, 2014).

[2] Mustain Thahir, "The Role and Function of Islamic Boarding School: An Indonesian Context," *TAWARIKH* 5, no. 2 (2014), https://doi.org/10.2121/tawarikh.v5i2.574. Purniadi Putra et al., "The Relevancy on Education Release Revolution 4.0 in Islamic Basic Education Perspective in Indonesia (An Analysis Study of Paulo Freire's Thought)," *Test Engineering & Management* 83 (2020): 10256–63. Amat Suroso et al., "Challenges and Opportunities towards an Islamic Cultured Generation: Socio-Cultural Analysis," *Linguistics and Culture Review* 5, no. 1 (June 28, 2021): 180–94, https://doi.org/10.37028/lingcure.v5n1.1203. Sardjana Orba Manullang, Mardani Mardani, and Aslan Aslan, "The Effectiveness of Al-Quran Memorization Methods for Millennials Santri During Covid-19 in Indonesia," *Nazhruna: Jurnal Pendidikan Islam* 4, no. 2 (2021): 195–207. Sardjana Orba Manullang et al., "Understanding Islam and The Impact on Indonesian Harmony and Diversity:," *Al-Ulum* 21, no. 1 (June 25, 2021), https://doi.org/10.30603/au.v21i1.2188.

[3] Philip N. Howard, *The Digital Origins of Dictatorship and Democracy: Information Technology and Political Islam* (Oxford University Press, 2010).

[4] Rahman El Junusi, "Digital Marketing During the Pandemic Period; A Study of Islamic Perspective," *Journal of Digital Marketing and Halal Industry* 2, no. 1 (April 30, 2020): 15–28, https://doi.org/10.21580/jdmhi.2020.2.1.5717.

[5] Muhammad Thohri, "Islamic School Leadership Model: The Challenge in Digital Era," *AL-ISHLAH: Jurnal Pendidikan* 14, no. 1 (April 20, 2022): 225–32, https://doi.org/10.35445/alishlah.v14i1.1939. Sudarmo Sudarmo et al., "The Future of Instruction Media in Indonesian Education: Systematic Review," *AL-ISHLAH: Jurnal Pendidikan* 13, no. 2 (August 31, 2021): 1302–11, https://doi.org/10.35445/alishlah.v13i2.542.

The progress of Islam in various fields is combined with the creation of Islamic human resource preparation, the interrelation of changes in Islamic education regionally and globally that is different from the rest of the world from the planning order to the educational outcomes into the debate.[6] This can be understood as the impact of globalization, which challenges and reshape heterogeneous and plural communities, especially in modern Islamic countries. According to Sztompka, globalization generally means "prose to unite the world, which means that everyone on the planet will communicate with each other about all aspects of life, including culture, economy, and politics. Various life practices and new definitions of things have emerged due to globalization, marked by differences in life. Integrating society into the global order requires the formation of a society bound by absurd international communication networks.[7]

As a result, information also carries risks in the flow of people and cultures. While the development of diversity, the development of long-term values, and the demise of humanity are just a few examples. The diverse flow of information is triggered by the rapid and unstoppable flow brought about by globalization.[8] This flow has an impact on knowledge, as well as the values of Islamic education. Costumes, eating habits, and recreational activities are becoming increasingly standardized due to the increasing globalization of lifestyles, especially among young people. There are religious, social, and economic factors at play here. However, those who follow the trend consider themselves modern and sophisticated while abandoning religious and moral values as religious values become increasingly obsolete. In the competition of global life, globalization requires preparation. Due to competition, the Indonesian generation must demonstrate intelligence, tenacity, toughness, innovation, and other qualities.[9] Significant efforts are needed to save the younger generation as the nation's successors to avoid falling into the abyss and be prepared for global competition. One of the efforts made to reduce the impact of globalization is education, especially Islamic education.[10]

Because of the diverse effects that globalization has had on Islamic education, it is tricky for Islamic education to confront these effects and shield students from them. The first of these difficulties is the difficulty in the field of culture, ethics, and morality brought on by advancements in transportation and information technology; Second, graduates face fierce competition for jobs as a result of globalization and free trade legislation; The third comes from global surveys; According to the surveys, Indonesia's

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[6] Widhiya Ninsiana and M. Ihsan Dacholfany, "Reorientation Of Islamic Higher Education Leaders in Dealing With The Global World," *Al-Ulum* 17, no. 2 (December 1, 2017): 332–51, https://doi.org/10.30603/au.v17i2.254.

[7] Muhammad-Bashir Yusuf, "Effects of Spiritual Capital on Muslim Economy: The Case of Malaysia," *Research on Humanities and Social Sciences* 1, no. 2 (2011): 23–41.

[8] Susan Paulson, "Degrowth: Culture, Power and Change," *Journal of Political Ecology* 24, no. 1 (September 27, 2017): 425–48, https://doi.org/10.2458/v24i1.20882.

[9] Daromir Rudnyckyj, *Spiritual Economies: Islam, Globalization, and the Afterlife of Development* (Cornell University Press, 2011).

[10] K. Mandal, "Globalization and Its Minacious Effects on Indian Education System: A Critical Analysis," *Вісник Київського Національного Університету Імені Тараса Шевченка. Соціологія*, no. 1 (2015): 60–65.

education quality is poor, if not worse than that of neighboring nations; The fourth issue is low social capital, which stems primarily from an attitude of trust.[11] There are many different ways to safeguard and shape children's cognitive, affective, and psychomotor development, including the curriculum that schools create, the curriculum that the government creates, and how schools implement each indicator in the teaching and learning process.[12] Consequently, curriculum-based educational programs require particular attention.It is understood that the curriculum includes the activities and educational experiences that educational institutions design and organize for their students both inside and outside the school to achieve predetermined educational objectives.Each master in Islamic training, including al-Abrasyi, an-Nahlawi, al-Jamali, as-Syaibani, and al-Ainani, has illustrated a definitive objective of Islamic schooling, which is essentially founded on the accompanying three parts; 1) Achieving the goals of pablum min Allah (relationship with Allah); 2) Achieving the goals of pablum min anna (relationships with humans); 3) Achieving the goals of the hab.

The difficulties of Islamic education can be broken down into three categories based on these three perspectives.[13] Human, cultural, and structural resources. The government exercises direct structural control over the state's Islamic education institutions, including financial matters. The issue that emerged is the restricted financing distributed by the Service of Religion. The development of immaterial aspects and the absence of facilities and equipment are both impacted by this. The ideal education funding takes into account the costs of each student but also the structure of the system. Islamic educational establishments are confronted with the issue of the enactment of Law No. 32 Year on Regional Autonomy in 2004. This law creates additional problems because it mandates that the institution and religion department delegate management of funding to the local government and management of religion to the national government.[14]

In order to guarantee the continued existence of Islamic educational institutions and equitable treatment in terms of comprehension, it asserts that careful policymaking studies are required. Culturally, many Islamic educational establishments, especially boarding schools and elementary and secondary schools, are regarded as "second-class." This insight influences Islamic networks to give their youngsters concentrate on

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[11] Carolyn Shields, "Ethical Leadership: A Critical Transformative Approach," in *Handbook of Ethical Educational Leadership* (Routledge, 2014).

[12] Lisa R. Lattuca and Joan S. Stark, *Shaping the College Curriculum: Academic Plans in Context* (John Wiley & Sons, 2011). Aslan Aslan, *HIDDEN CURRICULUM* (Pena Indis, 2019). Aslan and Wahyudin, *Kurikulum Dalam Tantangan Perubahan* (Medan: Bookies Indonesia, 2020), https://scholar.google.com/scholar?oi=bibs&hl=en&cluster=17745790780728460138.

[13] Inkeri Rissanen, "Teaching Islamic Education in Finnish Schools: A Field of Negotiations," *Teaching and Teacher Education* 28, no. 5 (July 1, 2012): 740–49, https://doi.org/10.1016/j.tate.2012.02.001.

[14] Eric Brousseau, Pierre Garrouste, and Emmanuel Raynaud, "Institutional Changes: Alternative Theories and Consequences for Institutional Design," *Journal of Economic Behavior & Organization*, The Dynamics of Institutions in Perspectives: Alternative Conceptions and Future Challenges, 79, no. 1 (June 1, 2011): 3–19, https://doi.org/10.1016/j.jebo.2011.01.024.

accessing these instructive organizations.[15] The Islamic educational institution's teachers and facilities contribute to the perception that it is a second-rate institution. It reduces the number of educated and well-paid Islamics and the number of people who are influenced to send their children to Islamic schools. Human capital; In Islamic educational establishments, several managers and employees, including educators and education staff, must be added, including educators and administrative staff. In basic subjects like mathematics, science, biology, and chemistry, for example, there are only a few qualified professionals teaching; there need to be more teachers, which significantly impacts graduates.[16]

The influence of educational globalization in the future will be more open and two-way, diverse, multidisciplinary, and related to work productivity and competitiveness. In the future, the information technology and telecommunication sector will be the most dominant, and those who master technology will become leaders. Thus, the enormous responsibility of schools in entering the era of globalization is to prepare students to face challenges that quickly change.[17] One of the challenges faced by students is being a qualified employee, being able to speak foreign languages, having computer and internet skills, and using programs such as Microsoft are the three main criteria as a condition for entering employment in Indonesia and around the world. The inclusion of information technology material in the Islamic education curriculum has a critical position as one of the learning media in operationalizing this information, be it in seeking or obtaining information.[18] So that students will quickly get ideas and experiences from various groups, develop an attitude of initiative and independent learning skills, and decide and consider the use of information technology appropriately and optimally, including its implications in the future.

More specifically, the problems faced by madrasas, namely first, the low quality of physical facilities indicated by damaged madrasa buildings, low ownership and use of learning media, incomplete libraries, and learning technology, have contributed to improving the quality of education. They start from being the basis for developing methods and learning technique strategies to learning evaluation. Educators get extraordinary convenience in carrying out their learning tasks. In non-standard laboratories, the use of information technology is not. The application of multimedia in the field of education in delivering teaching materials interactively can facilitate learning

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[15] Imam Sutomo, "Modification of Character Education into Akhlaq Education for the Global Community Life," *Indonesian Journal of Islam and Muslim Societies* 4, no. 2 (December 1, 2014): 291–316, https://doi.org/10.18326/ijims.v4i2.291-316.

[16] Norman G. Lederman and Judith S. Lederman, "Nature of Scientific Knowledge and Scientific Inquiry: Building Instructional Capacity Through Professional Development," in *Second International Handbook of Science Education*, ed. Barry J. Fraser, Kenneth Tobin, and Campbell J. McRobbie, Springer International Handbooks of Education (Dordrecht: Springer Netherlands, 2012), 335–59, https://doi.org/10.1007/978-1-4020-9041-7_24.

[17] Anatoli Rapoport, "Editorial: Technologization of Global Citizenship Education as Response to Challenges of Globalization," *Research in Social Sciences and Technology* 5, no. 1 (January 10, 2020): i–vii, https://doi.org/10.46303/ressat.05.01.ed.

[18] Zalik Nuryana, "Pemanfaatan Teknologi Informasi Dalam Pendidikan Agama Islam," *TAMADDUN* 19, no. 1 (March 29, 2019): 75–86, https://doi.org/10.30587/tamaddun.v0i0.818.

because it is supported by various aspects such as sound/audio, video, animation, text, and graphics. This learning multimedia channel messages through knowledge, skills, and attitudes and can stimulate students' thoughts, feelings, concerns, and willingness to learn. In addition, the learning process can occur intentionally, purposefully, and well-controlled.[19] The role of IT in learning Islamic education is to solve problems in the learning process, especially in Islamic education, making it easier for teachers to follow technological developments when developing curriculum and learning based on competencies that emphasize students' skills. Technology can facilitate the learning process, and students can increase their knowledge to dig up more and not just focus on one source. If a teacher can use technology, the quality of education in Indonesia will be better.[20]

Scientific evidence explaining the governance of technology-based madrasah education focuses more on teaching at the Aliyah level with an emphasis on technology-based learning.[21] So to complete the discussion on how to use technology to improve the quality of learning in madrasas at the elementary school level, this study is felt to be necessary to gain an understanding of how technology-based teaching works with the hope that the results can be disseminated to be implemented in other Islamic elementary schools. Another is that by understanding how madrasah governance, especially technology-based teaching, will later be able to get scientific evidence of how education should be carried out at the basic Islamic education level elsewhere. The study reviews and gains an understanding of the governance of technology-based Islamic primary education that needs to be further developed and expanded is essential.[22]

Education, especially Islamic education, is the most effective means to fight the influence of globalization, but it still comes up with the idea of change and balance.[23] The level of education provided in a nation will be a determining factor in its decline or decline. Students are expected to have an optimistic personality as part of religious education. The formation of the human soul—also known as human perfection—is the goal of religious education, which ultimately leads to a relationship with God and happiness in this world and the hereafter.[24] Students' self-awareness as servants of God and caliphs on earth is also expected to be formed through religious education. The

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[19] Dedi Riyan Rizaldi et al., "Strategies to Improve Teacher Ability in Using The Madrasah E-Learning Application During the COVID-19 Pandemic," *International Journal of Engineering, Science and Information Technology* 1, no. 2 (March 29, 2021): 1–6, https://doi.org/10.52088/ijesty.v1i2.47.

[20] Muslem Daud and Mariati Mr, "Evaluation of Teacher's Ability in Using Technology Distance Learning in Banda Aceh City," *JURNAL SERAMBI ILMU* 23, no. 2 (September 30, 2022): 174–84, https://doi.org/10.32672/si.v24i2.4852.

[21] Miftahul Jannah and Junaidi Junaidi, "Faktor Penghambat Guru Sebagai Fasilitator Dalam Pembelajaran Sosiologi Di SMAN 2 Batusangkar," *Jurnal Sikola: Jurnal Kajian Pendidikan Dan Pembelajaran* 1, no. 3 (January 29, 2020): 191–98, https://doi.org/10.24036/sikola.v1i3.25.

[22] Sedya Santosa and Muhammad Fahmi Jazuli, "The Digital Madrasah as an Idea of IT-Based Islamic Education," *Nazhruna: Jurnal Pendidikan Islam* 5, no. 2 (April 20, 2022): 379–91, https://doi.org/10.31538/nzh.v5i2.2121.

[23] Anthony Welch, *Higher Education in Southeast Asia: Blurring Borders, Changing Balance* (London: Routledge, 2011), https://doi.org/10.4324/9780203828540.

[24] John H. Westerhoff III, *Will Our Children Have Faith?: Third Revised Edition* (Church Publishing, Inc., 2012).

strategy of developing education in public schools with Islamic schools often gets different views from both the community and even the government. For that reason, we want to get our understanding by conducting direct interview studies with educational actors in Islamic schools. We want to understand how Islamic schools must be developed to adapt to the era of globalization, namely the strengthening of technology through technology-based educational methods and approaches to produce quality Islamic human resources, both worldly and hereafter.[25]

RESEARCH METHOD

Starting from writing this paper, we have gone through several steps, including formulating the study's problem and background and then collaborating on what goals we will achieve so that we have several targets.[26] Then we tried to develop our communication pattern with the education providers, especially in the private madrasah Ibtidaiyah in Medan, called the private Islamic boarding school in Medan. Ask how education implementation in Islamic madrasas.[27] This is related to the transformation of technology into teaching, where there are many arguments that Islamic schools do not follow technology in curriculum development and student teaching. We interviewed ten resource persons in the form of teachers and leaders and several students whose aim was to understand how and why technology became a part of the world—teaching in their madrasa. Until we get to the ten issues most closely related to this study [28] until we get to the final part, namely whether religious schools are allowed to use technology as an alternative, after a series of data collection, we will try to examine it using a phenomenological approach using critical data giving techniques; we also try to integrate the data that appears and try to draw conclusions that we believe have answered the problems of this study. After our data was collected, we designed it in a descriptive qualitative way where the results of the interviews were planned in the results report and discussion section.[29] Thus, among others, the methodological process of carrying out the study that we carried out at the private Islamic boarding school Al Quba Islamic boarding school in the city of Medan.

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[25] Suroso et al., "Challenges and Opportunities towards an Islamic Cultured Generation."

[26] Allan Collins, John Seely Brown, and Susan E. Newman, "Cognitive Apprenticeship: Teaching the Crafts of Reading, Writing, and Mathematics," in *Knowing, Learning, and Instruction* (Routledge, 1989).

[27] M. Syahran Jailani et al., "The Traces of KH. Muhammad Daud Arif's Thoughts and Works as a Pioneer of Education in Jambi Province, Indonesia," *Dialogos* 25, no. 1 (2021): 64–76.

[28] Purniadi Putra et al., "The Students Learning from Home Experiences during Covid-19 School Closures Policy In Indonesia," *Jurnal Iqra' : Kajian Ilmu Pendidikan* 5, no. 2 (September 5, 2020): 30–42, https://doi.org/10.25217/ji.v5i2.1019.

[29] Seyed Abbas Hosseinijou, Saeed Mansour, and Mohsen Akbarpour Shirazi, "Social Life Cycle Assessment for Material Selection: A Case Study of Building Materials," *The International Journal of Life Cycle Assessment* 19, no. 3 (March 1, 2014): 620–45, https://doi.org/10.1007/s11367-013-0658-1.

RESULT AND DISCUSSION

In the following, we present the results of interviews with information and knowledge related to why technology has become part of the learning system and education governance at the private Islamic boarding school Al Quba Islamic boarding school in Medan. This section also describes the interpretation results for understanding every important point the resource person conveys. We also back up with evidence from scientific field studies where every problem we get, and we also compare and correlate the findings of other studies that have been published.

Table 1 The table of questions and answers of semi-structure interview with academic staff of MIS Al Quba Islamic Boarding School, Medan

No	Question	Answers
1	Main reason for using technology	Allows students to absorb information quickly and also with technology accelerates learning. Technology provides comfort and fun for students to continue learning, making it easier for them to learn.
2	Benefits of adopting technology	Beneficial for teachers and students, preparation for increasingly digital learning. Then when technology is available, we teachers make it easy to get resources online for free
3	Technology advances Islamic education	Many Muslims have adopted themselves to save morals and ethics where through various applications such as channels and websites and also including social media, find answers through the help of technology which finally when technology provides an opportunity for everyone and also for Muslims to convey their thoughts, views, and voices to be channeled to the public
4	Developing Islamic Education	Leaders and teacher resources in madrasas or the Islamic religion, the benefits we feel from using technology, for example, keep Muslim workers connected so that a very close relationship is established when in-person friendships cannot be made. With technology, of course, it can save time; no need to send messages anymore.
5	Social Media benefits	The existence of social media is very effective for establishing ukhuwah Islamiyah and increasing the reach of da'wah so that Muslims continue to connect from social media for spiritual development. Social media makes it easy for community development in mosques where with social media, religious leaders, ulama, and the community and congregations can continue to be connected.
6	Islamic perception	In the modern way involving technology and science, there is no problem with that knowledge and technology outside of Islam. Scholars oblige to study, and it is an obligation for every Muslim. With the conclusion that Islam does not

		question technology, it even requires humans to continue to explore knowledge and tech.
7	whether Islam supports technology	Islam requires its followers to seek and spread knowledge; at that time, there was no technology, but science and technology must be in line. This is one of the glory and respect of Islam to knowledgeable people. So by mastering science and knowledge, and technology, Muslims will be equal to other people.

Reason for adopting technology in madrasah

The first question we ask is the main reason that encourages madrasas to use and accept technology to be adopted into the learning process.

> The reason is that we see technology as experts say it allows students to absorb information quickly and also with technology accelerates learning. Technology provides comfort and fun for students to continue learning, making it easier for them to learn. On the other hand, we also see that technology allows our children to explore essential things that are not just content in school. Some students also deepen the understanding that they may not get in class, such as by learning foreign languages and science. This makes the technology very reasonable for us to adopt as part of learning management in the madrasas we develop based on technology (P.01).

As explained by the sources above, several reasons make teacher councils and madrasa education leaders accept technology as part of the learning method in madrasas or Islamic schools. From their discussion above, we can understand or explain that several possible benefits require madrasas to accept technology in learning.[30] As the experts said, technology also allows a more integrated learning environment where technology can prepare students in madrasas to enter the future because technology does allow them to develop and collaborate; it does support learning in madrasas, and as it is understood that this technology is especially during a pandemic. It has been proven to save learning so that many students continue to actively learn even though conditions at school do not allow them to get the learning content they need.[31]

Benefits of technology

If above we asked why madrasas adopt technology in learning, then in the second question, we asked about the advantages for teachers. What are the benefits of adopting technology for teachers in teaching students?

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[30] Ahmad Sugiri, *Sejarah Kebudayaan Islam Periode Klasik* (Serang: Penerbit A-Empat, 2021).
[31] Roy Martin Simamora, "The Challenges of Online Learning during the COVID-19 Pandemic: An Essay Analysis of Performing Arts Education Students | Studies in Learning and Teaching," September 7, 2020, https://scie-journal.com/index.php/SiLeT/article/view/38.

Technology is beneficial for teachers and students, for example, in preparation for increasingly digital learning. Then when technology is available, we teachers make it easy to get resources online for free, which will help students too. Next up, technology allows us to find students to whom we cannot give our knowledge, but with technology, we can help those who sometimes have children understand more what technology has to say than what we say. That makes technology great for development assignments - the teacher's task in a class where we are easy with this facility so that it is more straightforward that our task is helped (P,02).

What was explained by the teacher council above, among others? What benefits have made it easier for teachers to teach in the classroom? We can also understand that it is hypocritical for teachers that technology increases students' adaptation to lessons and enriches collaboration, increasing students' motivation in terms of enabling students to get feedback which may be through the teacher for a long time. Indeed they are connected to the outside world relatively quickly. With technology, it is possible to enrich the technology vehicle, which has become a learning culture and, of course, efficient and inexpensive.[32]

Advance education

Furthermore, our question leads to the theoretical concept and rationale for madrasas, how technology in educational applications can advance Islamic education or education in madrasas?

What we understand is that now many Muslims have adopted themselves to save morals and ethics where through various applications such as channels and websites and also including social media, it is the choice of many Muslims, now when this application can be used properly, then this is very helpful for Muslims including how Muslims discuss the problems they face how the community, in general, asks a problem, but they can find answers through the help of technology which finally when technology provides an opportunity for everyone and also for Muslims to convey their thoughts, views, and voices to be channeled to the public. This technology network is impossible without technology. In other words, as long as technology is used correctly, it will help Islamic education and Islam (P.03).

What was said above related to how technology helps advance Islamic madrasa education; what they answered above is true when technology is used correctly, such as in preaching, discussing social problems and, conveying thoughts opinions, and even preaching electronically.[33] Opportunities are given

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[32] Sherlock A. Licorish et al., "Students' Perception of Kahoot!'s Influence on Teaching and Learning," *Research and Practice in Technology Enhanced Learning* 13, no. 1 (July 21, 2018): 9, https://doi.org/10.1186/s41039-018-0078-8.

[33] Riki Thompson and Meredith J. Lee, "Talking with Students through Screencasting: Experimentations with Video Feedback to Improve Student Learning," *The Journal of Interactive Technology and Pedagogy* 1, no. 1 (2012): 1–16.

to everyone, and when Muslims can take advantage of them. Then this is an advancement that Muslims highly appreciate as long as the technology is not misused, as in various news and newspapers that ask about various crimes using technology.[34]

Developing Islamic Education

As madrasa leaders and teaching staff, the presence of technology will benefit Islam's advancement. According to your understanding, what are the benefits of technology for the development of Islam in the context of education?

> We think that as leaders and teacher resources in madrasas or the Islamic religion, the benefits we feel from using technology, for example, keep Muslim workers connected so that a very close relationship is established when in-person friendships cannot be made. Other uses, for example, with our technology, are accessible coordinate when there is a meeting. There is fundraising and information dissemination related to the organization. With technology, of course, it can save time; no need to send messages anymore, no need to call now one by one, but with the convenience of a one-click application, we directly reach all congregations that are among other benefits of technology is beneficial and bring Muslims closer to one another(04).

The speakers' expressions above show that the benefits of technology are substantial for the development of Islam, both for information communication and for gathering friendships related to various activities such as fundraising and delivering information that continues to grow. Also submitted by[35] who sees Muslim ummah in Cina may develop in Indonesian: society using technology.

Social Media benefits

Now we also want to ask about the part of technology, namely the use of social media. As many people know, every technology must be helpful to see the benefits of using social media to develop Islam.

> Social media makes it easy for community development in mosques where with social media, religious leaders, ulama, and the community and congregations can continue to be connected, and many people also follow the media. Also, we see that there are many clerics and clerics who quickly and cheaply preach Islamic religious content so that, in the end, it strengthens the network of good Muslims in a community of a country and can even be reached by the Muslim community internationally. In other words, the existence of social media is very effective for establishing ukhuwah Islamiyah and increasing the reach of da'wah so that Muslims continue to connect from social media for spiritual development (P.05).

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[34] Mustafa Raza Rabbani, Shahnawaz Khan, and Eleftherios I. Thalassinos, "FinTech, Blockchain and Islamic Finance : An Extensive Literature Review," 2020, https://www.um.edu.mt/library/oar/handle/123456789/54860.

[35] Choirul Mahfud, "Chinese Muslim Community Development in Contemporary Indonesia: Experiences of PITI in East Java," *Studia Islamika* 25, no. 3 (2018): 471–502.

It can be seen from the teachers' recognition that the existence of social media is beneficial in the development of Islam both in terms of unifying the relationship between religious leaders and their followers as well as the most important thing is that social media has played a role in the spread of Islamic religious content that knows no boundaries. This is supported by a study conducted in the Middle East.[36] They are learning and practicing politics to win democracy using digital media during the Arab Spring wave.

Islamic perception

Next, we asked the opinion of the leaders and teachers in madrasas regarding modern education. What do Islamic scholars or scholars say about modern education that has entirely accepted technology?

> There are many opinions of Muslim scholars that Islam obliges its people to seek knowledge, that is, by the command of Iqra in the Qur'an, namely reading, researching, and thinking. Scholars oblige to study, and it is an obligation for every Muslim. In the modern way involving technology and science, there is no problem with that knowledge and technology outside of Islam. With the conclusion that Islam does not question technology, it even requires humans to continue to explore knowledge and technology. (P.07).

Based on the explanation of the interview, Islamic scientists and the holy book oblige Muslims to be knowledgeable and follow the changing times. Islam requires that all are as well as seeking knowledge which is followed by mastering technology. In other words, Islam wants its people to be educated according to its era. This is in line with.[37]

Islami supports

Furthermore, this section asks whether Muslims and Islamic thinkers support technology being applied in education and life. If asked whether Islam supports technology?

> As described above, it is clear that Islam requires its followers to seek and spread knowledge; at that time, there was no technology, but science and technology must be in line. The holy book also says that people who believe are knowledgeable, that is, continue to learn to develop themselves with knowledge and technology. This is one of the glory and respect of Islam to knowledgeable people. Blah so that Muslims do not become weak people. So by mastering science and knowledge, and technology, Muslims will be equal to other people (P.08).

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[36] Philip N. Howard and Muzammil M. Hussain, *Democracy's Fourth Wave?: Digital Media and the Arab Spring* (Oxford University Press, 2013).

[37] Mohd Abbas Abdul Razak and Mohd Khalid Mohd Abbas, "Globalization and Its Impact on Education and Culture," *World Journal of Islamic History and Civilization* 1, no. 1 (2011): 59–69.

In the last section, we also asked whether there is a religion in this world that does not allow technology to be adopted in people's education, such as in madrasa schools and others.[38]

Islamic view support technology

If viewed from the anti-human orientation, this model rejects technology because individuals should not be influential. Are there parties who, like other followers, believe that only the rulers are allowed, so they do not allow technology to guide people's lives and consider these -things do not know? They are, for example, anti-Amish individualism: Based on the explanation above, all religions require their followers to be apostles with religion, technology, and knowledge. However, certain parties are there on behalf of religious advice and do not provide opportunities for their followers to study science and technology for specific reasons.[39]

CONCLUSION

We can conclude from a series of data results from interviews with the teacher council and leaders of technology acceptance in the teaching and learning process at private Islamic boarding schools in North Sumatra. Through semi-structured interviews with the teacher council and leadership, we have gained an understanding of several issues related to the governance of technology-based Islamic education.

As it is understood together that the existence of technology in education is a blessing for Muslim education projects, this is because the existence of technology has been able to innovate learning which includes opportunities for collaboration in access to education, cooperation networks, and several benefits that this technology has in law and regulation. The success of teaching in madrasas or Islamic schools. What was conveyed in interviews with teachers and leaders at one Islamic madrasa or elementary school in the city of Medan reflects how technology is not foreign to madrasas in Indonesia. Therefore, from this study, a review of the governance of Islamic madrasa education has become an essential and exciting thing to continue to study, especially in the Islamic education environment, which is said to be Islamic.

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[38] Abdul Rohman et al., "Alternative Approach Techniques to Support Home Islamic Boarding Schools Using Virtual Learning Technology," *Linguistics and Culture Review* 5, no. S4 (November 23, 2021): 1386–99, https://doi.org/10.21744/lingcure.v5nS4.1846.

[39] Cristian Vaccari, "'Technology Is a Commodity': The Internet in the 2008 United States Presidential Election," *Journal of Information Technology & Politics* 7, no. 4 (October 11, 2010): 318–39, https://doi.org/10.1080/19331681003656664.

This finding certainly has weaknesses and limitations, both in terms of exposure to data on data collection problems and in delivering the results of data analysis. Therefore, we sincerely hope for constructive input and criticism.

We recommend that a similar study be carried out by adding quantity and quality data so that the data is more extensive and clarifies the problems to be studied further. We recommend that the problem should be deepened again so that it gets deeper information and findings. We recommend that the data collection location is more than one school as a comparison. We recommend that participants also involve many teachers and students, and school leaders

Acknowledgement

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