
Online Halaqah: the Adoption of Digital Media Technology in Pesantren As'adiyah, Wajo, South Sulawesi

¹Wahyuddin Halim, ²Akbar, ³Tarmizi Tahir

¹UIN Alauddin Makassar, ²IAIN Kendari, ³Universitas Islam As'adiyah Sengkang

Abstract

This study examines the use of digital media by Pesantren As'adiyah in South Sulawesi through its online halaqah program, initiated during the Covid-19 pandemic. Employing a qualitative approach, data were gathered through both online and offline fieldwork in Wajo and other regions in Indonesia and analyzed using a thematic approach. The findings reveal that the primary objective of the online halaqah was to accommodate students returning to their hometowns during the pandemic. Over time, however, it expanded to include a broader audience. Pesantren adapted its methods and duration to align with the online format, which has recently evolved into a parallel coverage of offline halaqah held at the pesantren. In conclusion, despite its limited impact, the online halaqah has contributed to maintaining religious education, embraced digital technology, and extended its benefits to a wider community

Keywords: Virtual pesantren, online halaqah, social media, digital divide, digital technology adoption

Halaqah Daring: Adopsi Teknologi Media Digital di Pesantren As'adiyah, Wajo, South Sulawesi

Abstrak

Studi ini meneliti penggunaan media digital oleh Pesantren As'adiyah di Sulawesi Selatan melalui program halaqah daringnya, sejak masa pandemi Covid-19. Dengan menggunakan pendekatan kualitatif, data dikumpulkan melalui riset lapangan daring dan luring di Wajo dan daerah lain di Indonesia dan dianalisis dengan pendekatan tematik. Studi ini menemukan bahwa tujuan utama halaqah daring adalah untuk mengakomodasi para siswa yang kembali ke kampung halaman mereka selama pandemi. Namun, seiring berjalannya waktu, program tersebut berkembang untuk mencakup audiens lebih luas yang tertarik mempelajari Islam secara daring. Pesantren tersebut mengadaptasi metode dan durasinya agar selaras dengan format daring, yang baru-baru ini berkembang menjadi liputan paralel halaqah luring dalam kompleks pesantren. Sebagai kesimpulan, meskipun dampaknya masih terbatas, halaqah daring berperan menjaga kesinambungan pendidikan agama, mengadopsi teknologi digital, dan memperluas manfaatnya ke masyarakat yang lebih luas.

Kata kunci: pesantren virtual, halaqah online, media sosial, kesenjangan digital, adopsi media digital

Author correspondence

Email: wahyuddin.halim@uin-alauddin.ac.id

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A. Introduction

During the COVID-19 pandemic, pesantren students were subject to social distancing policies, requiring them to return to their hometowns, even those from remote regions outside South Sulawesi, like many from Pesantren As'adiyah. Only pesantren leaders and teachers remained at the pesantren complex. To continue education, students participated in online halaqah, a learning model unprecedented in Indonesian pesantren traditions. This shift reflects the broader adoption of internet-based media in Indonesia, driven by improved access, affordability, and the proliferation of digital devices.¹ Since the 1990s, internet penetration has facilitated knowledge distribution through digital platforms, with the pandemic accelerating its integration into daily life.² For example, during the pandemic, 87% of U.S. adults considered the internet important, highlighting its global role in sustaining essential activities.

In Indonesia, internet users reached 215.63 million in 2022-2023, accounting for 78.19% of the population, marking steady growth from previous years.³ This widespread connectivity has fostered the rise of "online pesantren," enabled by advancements in digital technology and the dominance of social media platforms like X (Twitter), Instagram, and WhatsApp. Quoting van Dick's view, Wahyu Ilaihi emphasizes the critical role of social media in the daily lives of internet users and its utility for online pesantrens.⁴ Nearly all major pesantrens in Indonesia, both traditional and modern, now have official websites and active social media accounts, leveraging these platforms to sustain and expand their educational programs.

The halaqah is a hallmark of Islamic knowledge teaching in traditional pesantrens.⁵ However, online halaqah is a relatively new practice, adopted by only

¹ Basthian A. Laoebela et al., "Impact of Internet Culture on Indonesian Values and Moral Decision Making," *Journal of Digital Law and Policy* 2, no. 2 (2023).

²<https://katadata.co.id/analisisdata/610a57cd5f37d/ekonomi-digital-indonesia-terganjal-pemerataan-adopsi-internet> (Accessed in October 30, 2024).

³https://tekno.kompas.com/read/2023/02/13/19300087/pengguna-internet-di-indonesia-tembus-212-9-juta-di-awal-2023#google_vignette (Accessed in October 30, 2024).

⁴ Wahyu Ilaihi, "Online Education: Online Pesantren," in *Ritual in a Digital Society*, ed. Martin Hoondert and Suzanne van der Beek (Amsterdam: Institute for Ritual and Liturgical Studies, Protestant Theological University and Institute for Centre for Religion and Heritage, University of Groningen., 2019).

⁵ Indonesian pesantren can be categorized into two main types: traditional (A. *Salafiyah*) and modern (*Khalafiyah*). *Pesantren Salafiyah* follows traditional methods, emphasizing the study of *kitab kuning*

a few pesantrens. Many programs labeled as "online pesantrens" today do not feature halaqah studies typical of pesantren tradition. Instead, they offer general religious lectures or discussions, which are also common outside the pesantren context. This study argues that the term "online pesantren" should specifically denote programs featuring online halaqah, as it is the most authentic representation of traditional pesantren education in Indonesia. This research investigates the rationale behind implementing online halaqah, particularly when most pesantrens discontinued their offline halaqah studies during the pandemic. It also evaluates the impact and benefits of this program for both students and the broader community who engage with it regularly, as envisioned by the pesantren leadership.

B. Research Methods

This is a qualitative research study employing a case study approach.⁶ The data for this research comprise narratives from informants, written documents collected from the field, and internet content from various social media platforms where online halaqah sessions in Pesantren As'adiyah were broadcast or posted. The data were obtained and accumulated through a series of fieldwork activities conducted periodically between 2021 and 2022 in various locations across South Sulawesi and other provinces. However, the primary fieldwork took place in Wajo, South Sulawesi. A significant portion of the data was also gathered through online interviews with informants.

The data analysis in this research employed a thematic approach, where narratives, written documents, and online content were transcribed, organized, and categorized into thematic clusters based on recurring patterns and ideas related to the online halaqah sessions in Pesantren As'adiyah. Coding was conducted manually

--classical Islamic texts in Arabic-- through halaqah model. *Pesantren Khalafiyah*, in contrast, adopt more modern approaches which adopt class-room system in its teaching and whose curriculum includes the teaching of general science subject. The third type is called "*pesantren kombinasi*" (combination pesantren), or sometimes "*pesantren komprehensif*" (comprehensive pesantren), that is, those that combine the traditional and modern types. See, Amiruddin et al., "Mengenal Jenis Pesantren Salafiyah, Khalafiyah dan Komprehensif di Pondok Pesantren Salafiyah Luqmanul Hakim Marelani," *Innovative: Journal Of Social Science Research* 4, no. 3 (2024), <https://doi.org/https://doi.org/10.31004/innovative.v4i3.12136>. The latter type is mostly followed or applied by many pesantrens today, although they may be simply named "pesantren" (like Pesantren As'adiyah) or, sometimes, "pesantren modern".

⁶ Case study design are adopted from John W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (Thousand Oaks: Sage Publications, 2007).

to identify key themes and ensure a structured examination of the data. Triangulation was used to cross-verify findings from various sources, enhancing reliability and validity.⁷ The analysis contextualized the data within the cultural and socioreligious dynamics of the Pesantren and broader community, resulting in a synthesized narrative that highlights the significance of online halaqah sessions in promoting religious learning and community engagement.

C. Halaqah: A Typical Learning Model of Traditional Pesantren

Before discussing online halaqah, it is important to understand the traditional learning model of halaqah in pesantren. The term "*halaqah*" (from Arabic *ḥalqa*) is not widely used in many Indonesian pesantrens. In East and Central Java, for example, terms like *bandongan* and *wetonan* are more common for Arabic book learning. Another traditional method is *sorogan* (Javanese) or *mappangolo kitta'* (Buginese), where a student individually reads a book, usually in Arabic, in front of the kiai (ulama) or teacher, who corrects the reading and ensures understanding of grammar, meaning, and relevance.⁸

In the Bugis-Makassar community, the old term commonly used for religious learning activities is "*angajing*".⁹ In the classic Bugis-Dutch dictionary, by Matthes (1874), the word "*angajing*" is translated as a school for learning to read religious books (*school om godsdienstige boeken te leeren lezen*). The word *angajing* itself comes from the root word "*āji*" which, quoting Matthes again, is translated as "learning, being taught, reading religious books".¹⁰ Taken from the same root word, the Bugis term for students studying in *angajing* is "*ana'-mangāji*" or "*ana'-pangāji*", literally means the learning child.¹¹

Before the study of Islamic knowledge through Arabic books became common in Bugis society, the term *mangaji* (I. *mengaji*) referred only to the activity of studying the Qur'an, and *mappangaji* referred to teaching it. To distinguish

⁷ Virginia Braun and Victoria Clarke, *Thematic Analysis: A Practical Guide* (Los Angeles: Sage Publications, 2022): 53-57.

⁸ See, Zamakhsyari Dhofier, *Tradisi Pesantren: Memadu Modernitas untuk Kemajuan Bangsa* (Yogyakarta: Pesantren Nawesea Press, 2009), 28-29.

⁹ Other variations in transliteration of this word is (from ʾāǧī in local *lontaraq* script) are: *angngajing* or *aṅgâdjîṅ*, as found in Matthes' dictionary. See below.

¹⁰ In Dutch, "*leeren, onderwezen worden, godsdienstige boeken lezen*". See, Benjamin F. Matthes, *Boegineesch-Hollandsch Woordenboek* (Gravenhage: M. Nijhoff, 1874), 106.

¹¹ Matthes, *Boegineesch-Hollandsch Woordenboek* 106.

between studying the Qur'an and studying religious texts in Arabic, new terms were introduced: "*mangāji kitta*" (learning with books) and "*mappangāji kitta*" (teaching with books). Another term, referring to the posture or attitude of participants, is "*mangāji tūdang*", meaning studying while sitting (without a chair), or "*mangāji séppō*", meaning studying in a cross-legged position on the floor.

In the pesantren community, classical Islamic books in Arabic are commonly known as *kitab kuning* (I, yellow book) or *kitab gundul* (bald book, meaning without diacritical marks). In Bugis society, such a book is known as "*kitta' gondolo*" (bald book). Kitab kuning is a distinctive pedagogy of traditional pesantren in Indonesia, referring to the yellow-brown paper used in these books, usually printed in the Middle East or South Asia. They cover various Islamic disciplines taught through the halaqah method, such as *Tafsīr*, *Ḥadīṣ*, *Fiqh*, *Ṭaṣawwuf*, *Tawḥīd*, *Akhlāq*, and Arabic grammar (*Naḥw* and *Ṣarf*).¹² It is unclear when the term *mangāji kitta* in Pesantren As'adiyah and other pesantrens in South Sulawesi was replaced by terms absorbed from "pesantren," such as "*mappesantréng*" (attending pesantren learning) and "*mappangajiang pesantréng*" (giving pesantren teaching). Recently, the term halaqah or *pengajian halaqah* has become more common.

The term *ḥalqah* (حَلَقَة), derived from the Arabic root ḥ-l-q) carries several meanings, including link, ring, or anything circular.¹³ In the history of Islamic religious education, *ḥalqah*, known in Indonesian as *halakah*, refers to a gathering where students sit in a circle to learn from a teacher or *ulama*.¹⁴ In traditional Indonesian pesantren, *halaqah* involves a *kiai* teaching from a *kitab kuning* to students seated in front of or around him. Students follow along, annotating their texts with diacritical marks (*harakāt*) and notes for difficult words as the *kiai* reads and explains according to Arabic grammar rules. The texts used in *halaqah* typically lack diacritical marks, requiring advanced knowledge of Arabic grammar,

¹² For a historical account on the teaching of *yellow book* in Indonesia, see, Martin van Bruinessen, *Kitab Kuning, Pesantren dan Tarekat [Edisi Revisi]* (Yogyakarta: Gading Publishing, 2012). For different types of *yellow books* used in pesantren, see, Nurul Hidayah, Mujiburrohman, and Meti Fatimah, "The Yellow Book Learning Strategy in Salaf Islamic Boarding Schools to Increase Arabic Vocabulary," *Risalah: Jurnal Pendidikan dan Studi Islam* 10, no. 1 (2024), https://doi.org/https://doi.org/10.31943/jurnal_risalah.v10i1.624.

¹³ Lihat, Arabic Lexicon Dictionary: <https://arabiclexicon.hawramani.com/الحلقة/>

¹⁴ In this article, the Romanised form of the Arabic term is used, that is, *halaqah*, but without transliterating the letter *h* to *ḥ* (with dot underneath).

morphology, and syntax to read and interpret accurately. Misreading the diacritical marks can result in misunderstandings of the text, highlighting the importance of proper guidance in this traditional learning method.

Since the seventh century, *halaqah* has been a vital educational system in the Muslim world, often associated with the function of the *Masjid Jami'* (public mosque).¹⁵ Through this system, Islamic knowledge has been passed down generations by authoritative scholars who learned from earlier masters. In non-Arab regions like Indonesia, *halaqah* often includes translations of Arabic texts into local languages by the *ulama* or teachers. Traditional pesantrens in Indonesia have embraced the *halaqah* system as a hallmark of their educational approach. However, this method holds less prominence in modern pesantrens, where it is rarely included as a central component of the curriculum.¹⁶

Since the outbreak of the Covid-19 pandemic globally in early 2020, most *halaqah* sessions at Pesantren As'adiyah have been streamed live or uploaded to platforms like Facebook, YouTube, and Instagram. Initially, this "online *halaqah*" aimed to maintain Islamic learning for students who had returned to their hometowns during the Covid-19 pandemic. The next section of this paper examines Pesantren As'adiyah's online *halaqah* program, exploring its significance, impact, and effectiveness based on offline and online fieldwork conducted between 2019 and 2022. Before delving into this specific case, a review of prior studies on online pesantren in Indonesia will be provided.

D. Previous Studies on Online Pesantren

Pesantren has been a prominent subject of academic research since the early 1980s, with studies examining its many aspects through diverse perspectives and approaches. More recently, the focus has shifted to the online activities of pesantren, particularly since the rise of internet use in Indonesia at the turn of the millennium. Terms such as *pesantren virtual*, *pesantren online*, *ngaji online* have emerged to describe these activities. However, the authors argue that "virtual" may

¹⁵ George Makdisi, *The Rise of Colleges: Institutions of Learning in Islam and the West* (Edinburgh: Edinburgh University Press, 1981), 16-17. See also, Johannes Pederson, "Masdjid," in *Shorter Encyclopedia of Islam*, ed. H.A.R. Gibb and J.H. Kramers (Leiden, Netherlands: E.J. Brill, 1953), 306.

¹⁶ Mastuhu, *Dinamika Sistem Pendidikan Pesantren: Suatu Kajian tentang Unsur dan Nilai Sistem Pendidikan Pesantren* (Jakarta: INIS, 1994), 143.

misleadingly suggest something "unreal," whereas "online" pesantren programs are typically rooted in tangible activities behind the digital interface. Notably, some online platforms now identify as pesantren without possessing any physical infrastructure, such as a mosque, *kiai*, teachers, or students in the real world.

Several studies have explored the phenomenon of online pesantren. Rifaa'i, for instance, highlighted how pesantren students have managed religious preaching programs via virtual media. His research revealed that these creative and innovative programs successfully attracted numerous participants, who then registered as members or students of the virtual pesantren. Thus, online pesantren has emerged as an accessible medium for disseminating religious knowledge to diverse audiences.¹⁷

Winarko studied the content, benefits, and evolution of 46 online pesantrens in Indonesia using their websites and other online platforms. He highlighted how pesantrens leverage internet technology for Islamic education, providing benefits such as access to remote Muslim communities, wider reach for programs like online Qur'an reading, and a medium for consultations tailored to students' religious needs. Additionally, online platforms expand pesantren visibility to potential users while fostering communication between *kiai*, teachers, and students, as well as among the students themselves.¹⁸

Qudsy explored how online pesantrens transform religious authority in the virtual world, focusing on www.pesantrenvirtual.com. He identified cyberspace as a disruptor to traditional institutions, including pesantrens, while also reshaping public perceptions of pesantrens and fulfilling demand for accessible religious information.¹⁹ Similarly, Mustofa, Mas'ud, and Elizabeth examined digital technology's impact on pesantren learning, emphasizing innovations like *ngaji online*. They explored the concept of "hybrid pesantren," blending face-to-face

¹⁷ Akhmad Rifaa'i, "E-Dakwah dalam Pesantren Virtual," *Millah: Jurnal Studi Agama* 9, no. 1 (2016).

¹⁸ Bambang Winarko, "Content, Benefits, and Development of Pesantren Online in Indonesia," *Malaysian Journal of Library & Information Science*, 12, no. 2 (2007).

¹⁹ Saifuddin Zuhri Qudsy, "Pesantren Online: Pergeseran Otoritas Keagamaan di Dunia Maya," *Living Islam: Journal of Islamic Discourses* 2, no. 2 (2019), <https://doi.org/https://doi.org/10.14421/lijid.v2i2.2010>.

learning with live broadcasts, positioning the *kiai* as not just a cultural mediator but also a creator shaping the future of pesantren education.²⁰

Meanwhile, Ilaihi provides a historical description of the emergence of online pesantrens in Indonesia since the early 2000s. He proposes five types of online pesantrens: (1) Single online pesantrens that represent independent virtual programs, (2) Hybrid online pesantrens which are offline pesantren programs that go online, (3) Organizational online pesantrens, namely online Islamic teachings posted online by certain Islamic organizations, (4) Online university pesantrens, and (5) Personal online pesantrens, which are run by preachers or personal teachers. Ilaihi found that almost all pesantrens in Indonesia, both traditional and modern, currently have official websites and social media accounts and have given rise to a new culture in the online realm and contributed to Islamic civilization.²¹

The studies reviewed earlier have not specifically addressed the traditional teaching model of pesantrens, *halaqah*. This is noteworthy because many pesantrens, particularly since the COVID-19 era, have begun broadcasting halaqah teachings online or posting them on various digital platforms. The authors argue that the term "online pesantren" is more aptly applied to online halaqah, as it embodies the authentic learning tradition of pesantrens. In contrast, many virtual Islamic teaching programs labeled as "online pesantren" are often managed by non-pesantren institutions like *majelis taklim*, Islamic organizations, or modern Islamic schools. These programs typically lack the core features of pesantrens and do not align with their distinctive educational character. Thus, examining the unique nature of online halaqah and how it differs from conventional halaqah is essential for understanding its role in the evolving landscape of Islamic education.

E. The Adoption of the Online Learning System in Indonesian Pesantren

Pesantrens face challenges transitioning to online learning. At An Nahdah Islamic Boarding School in Depok, West Java, online learning is hindered by the

²⁰ Mahmud Yunus Mustofa, Abdurrahman Mas'ud, and Misbah Zulfa Elizabeth, "Hybrid Pesantren in Indonesia; Analyzing the Transformation of Islamic Religious Education in the Digital Age," *Al-Tadzkiyyah: Jurnal Pendidikan Islam* 14, no. 1 (2023).

²¹ Ilaihi, "Online Education: Online Pesantren."

perception that gadgets, like smartphones, distract from religious and character education. Similarly, Pesantren Persatuan Islam in Bandung relies on platforms like Zoom and Google Classroom as emergency measures, facing low participation and engagement.²² Some pesantrens, such as Pesantren Ar-Rohmah in Malang, have adapted through blended learning, combining online and offline methods with health protocols.²³ However, obstacles like limited technology access, low digital literacy, and economic constraints persist. For instance, Pesantren Al-Hasyimiyyah and Pesantren Daarul Quran Tahfiz struggle with poor internet access and reduced student motivation outside traditional settings.²⁴

In communication studies, this type of condition or obstacle is called the "Digital Divide". The digital divide refers to differences in access, ability, and utilization of digital technology, especially the internet, between individuals, groups, communities, or countries. This gap includes aspects such as the availability of infrastructure, affordability of digital devices and services, digital literacy, and the ability to utilize technology to improve the quality of life.²⁵ In *The Digital Divide* (2020), van Dijk argues that digital inequality not only exacerbates existing social disparities but also generates new forms of inequality. He emphasizes that access to digital technology and proficiency in digital skills significantly influence social, economic, and political opportunities. Reducing digital inequality, therefore, requires inclusive and strategic policies to promote equitable use of digital technology across society.²⁶ The Covid-19 pandemic has accelerated digital transformation in some pesantrens, despite persistent challenges posed by the digital divide. For instance, pesantrens in Madura adopted digital tools for teaching

²² Nurti BudiYanti, S. Supiana, and Qiqi Yuliati Zakiah, "Implementasi Kebijakan Sistem Pembelajaran Daring di Pesantren Persatuan Islam 1-2 Bandung Pada Masa Pandemi Covid-19," *Dirasah* 4, no. 2 (2021), [https://doi.org/](https://doi.org/10.29062/) <https://doi.org/10.29062/>.

²³ Siti Kholifah, "The Dynamics of the Pesantren Adaptation Patterns Amid the Covid-19 Pandemic," *Religious: Jurnal Studi Agama-Agama dan Lintas Budaya* 6, no. 1 (2022), [https://doi.org/https://doi.org/10.15575/rjsalb.v6i1.15113](https://doi.org/10.15575/rjsalb.v6i1.15113).

²⁴ Syafrin Syafrin and Muslimah Muslimah, "Problematisasi Pembelajaran E-learning di Masa Pandemi Covid-19 bagi Santri Pondok Pesantren Al-Hasyimiyyah Kotawaringin Barat," *Jurnal Al-Qiyam* 2, no. 1 (2021), [https://doi.org/https://doi.org/10.33648/alqiyam.v2i1.108](https://doi.org/10.33648/alqiyam.v2i1.108).

²⁵ Jan van Dijk, *The Digital Divide* (Cambridge, UK: Polity Press, 2020). See particularly, Chapter 1, "What is the Digital Divide?": 1–16. The term "access" here can refer to tools, connection and application of digital media.

²⁶ Dijk, *The Digital Divide*, 110–31.

and learning during the pandemic while adhering to health protocols. However, these changes were largely temporary and have not yet been integrated into their long-term educational systems.²⁷

The pandemic challenged pesantrens to adapt to online learning, disrupting their tradition of face-to-face education. While some successfully integrated digital media, many struggled with technological, cultural, and economic barriers.²⁸ This situation highlighted both their resilience and vulnerabilities. To ensure online learning supports long-term educational goals, improving digital literacy and infrastructure is essential. Next, we will examine a case study on digital media adoption in one of the oldest and largest pesantrens in eastern Indonesia.

F. The Adoption of Digital Technology and Online Halaqah in Pesantren As'adiyah

Before electronic media like TV and mobile phones became common, Pesantren As'adiyah utilized print media such as books, journals, and magazines, along with radio broadcasts, to spread its religious teachings. Between 1942-1944, the founder of Pesantren As'adiyah, *Anrégurutta* Haji Muhammad As'ad Al-Bugisy (1907-1952),²⁹ published a journal, *Al-Mau'izat al-Hasanah* (Good Advice), featuring articles in Bugis, Malay, and Arabic. This journal was distributed to alumni of Al-Madrasah al-'Arabiyah al-Islamiyah (MAI) and the wider Bugis Muslim community in South Sulawesi, East Kalimantan, and Jambi. MAI was founded by Kiai As'ad in 1930, and was, in honor of him, renamed Pesantren As'adiyah after his death in 1952.³⁰ Due to the Japanese occupation (1943-1945), the journal ceased publication after three years. It was later replaced by *Risalah As'adiyah*, initiated by KH.

²⁷ Zainuddin Syarif, Syafiq A. Mughni, and Abd Hannan, "Responses of Pesantrens in Madura towards the Covid-19 Pandemic," *Journal of Indonesian Islam* 15, no. 1 (2021), <https://doi.org/https://doi.org/10.15642/jiis.2021.15.1.47-74>.

²⁸ See, Mustofa, Mas'ud, and Elizabeth, "Hybrid Pesantren in Indonesia; Analyzing the Transformation of Islamic Religious Education in the Digital Age."

²⁹ Kiai As'ad, more widely known by the local title *Anrégurutta* Pung Aji Sade' (or sometimes *Gurutta* Aji Sade'), is a highly respected ulama in South Sulawesi, particularly in the Bugis region. "*Anrégurutta*" translates to "our great teacher" and is used for a highly authoritative ulama, while "*Gurutta*" refers to a teacher of a lower rank. See, Wahyuddin Halim, "Arung, Topanrita dan Anregurutta dalam Masyarakat Bugis Abad XX," *Al-Ulum* 12, no. 2 (2012). Both terms derive from the Sanskrit word "*guru*" (teacher). In this article, for simplicity and popularity, the Javanese term "kiai" is used to refer to ulama at the level of *anrégurutta*, with "Kiai" followed by "H" for the title *haji*.

³⁰ Muhammad As'ad, "Pondok Pesantren As'adiyah," *Jurnal Al-Qalam* 15, no. 24 (2009): 339.

Muhammad Yunus Martan (d. 1986), a former student of Kiai As'ad who led Pesantren As'adiyah from 1961 until his death in 1986.

Pesantren As'adiyah operates Radio Suara As'adiyah (RSA), which broadcasts live halaqah sessions from the RSA station and the Great Mosque of Sengkang, led by senior ulama like Kiai Yunus. This expanded participation to auditing students (*mustami'* or *passéma'* in Buginese). Initially focused on Islamic teachings, RSA aired halaqah classes for Pesantren As'adiyah students, As'adiyah Islamic College (STAI) students, and the public, both in person and through radio. By the 1980s, students unable to attend in person could follow the sessions via RSA. With the internet's rise, RSA now streams programs online via its website, YouTube, and an Android app.

The online halaqah of Pesantren As'adiyah is inspired by the RSA halaqah program. The only difference is that the former halaqah model uses advanced audio-visual platforms. KM Tarmizi Tahir noted that the online halaqah, launched in early 2020, aimed to expand its reach beyond the pesantren in Sengkang, much like RSA did in its prime. From the 1970s to 1990s, RSA reached audiences across South Sulawesi, East Kalimantan, and Southeast Sulawesi. Now, with platforms like Facebook and YouTube, the online halaqah has a broader, even global, audience.³¹ KMH. Abdul Waris Ahmad emphasized the challenges of virtual pesantren programs that lack a physical institutional foundation, noting that As'adiyah's program is not included in this category. These online pesantren rely solely on digital media and often do not include the five essential elements of traditional pesantren: mosques, dormitories, students, religious texts, and teachers.³²

Some online pesantrens thrive in the cyber realm, creating larger virtual communities than conventional pesantrens. Conflicts arise when online pesantrens, often lacking a physical base, teach Islam in ways that may contradict traditional pesantren teachings. This poses a challenge for conventional pesantrens transitioning online, like Pesantren As'adiyah. Initially, its online halaqah aimed to

³¹ KM. Tarmizi Tahir (alumnus and lecture of the Ma'had Aly of As'adiyah), Interview in Sengkang, March 2022.

³² KMH. Abdul Waris Ahmad (alumnus and lecturer of the Ma'had Aly of As'adiyah), Interview in Sengkang, March 2022.

continue teaching students outside Sengkang during the Covid-19 pandemic. Even after students returned in late 2021, the halaqah continued to broadcast and reach a broader audience beyond the pesantren community.

Our field research revealed that many outside the pesantren community, particularly alumni and followers of As'adiyah as a socio-religious organization, benefit from Pesantren As'adiyah's online halaqah programs. These audiences, often from Bugis diaspora areas like Jambi, Riau, East Kalimantan, and Papua, attend sessions regularly or occasionally. The online halaqah covers nearly all topics previously taught offline to students, from junior high school (*thanawiyah*) to Ma'had Aly (special college for advanced Islamic studies), before the Covid-19 pandemic.³³

In addition, some informants join Pesantren As'adiyah's online halaqah not only to deepen their religious understanding but also for nostalgia, recalling their time as students. This is especially meaningful when led by ulama who still teach today through online sessions. They also find it helpful for refreshing their knowledge of religious teachings from their pesantren days. Among those sharing this view were the leader of an As'adiyah branch pesantren in Sebatik Island, North Kalimantan, and an alumnus living in Sorong, Southwest Papua.

The halaqah classes at Pesantren As'adiyah are as follows: (1) male junior high school students (*tsanawiyah*) at the Lapongkoda Campus in Sengkang (online and offline); (2) female *tsanawiyah* students at the Jami' Mosque in Sengkang (offline only); (3) male senior high school students (*aliyah*) at the Macanang Campus in Majauleng District (online and offline); (4) female *aliyah* students in Lapongkoda (offline only); (5) ulama cadre program (Ma'had Aly) students (male and female) at the Ummul Qura Grand Mosque in Sengkang and the mosque at Campus IV in Sengkang. Since "offline" halaqah sessions are broadcast live (live streaming) or recorded online, they are also considered online halaqah. Some halaqah sessions were only available online during the pandemic, accessible by all students and the

³³ For a detailed description of this program, see, Wahyuddin Halim, "The Mass Production of Religious Authority: A Study on a Ma'had Aly Program in South Sulawesi, Indonesia," *Islamic Studies Review* 1, no. 2 (2022), <https://doi.org/https://doi.org/10.56529/isr.v1i2.83>, <https://journal.uiii.ac.id/index.php/isr/article/download/83/114>.

public. After the pandemic, these halaqah sessions no longer require in-person attendance at a specific location.

The yellow books taught in online and conventional halaqah at Pesantren As'adiyah include, the Qur'anic exegesis (*tafsīr*), hadith, Islamic jurisprudence, and the ethics of Sufism. Books on Qur'anic exegesis include: 1. *Tafsīr Jalālayn* and 2. *Tafsīr Ibn Kaṣīr*. Books on hadith include: 1. *Ṣaḥīḥ al-Bukhārī*, 2. *Riyāḍ al-Ṣāliḥīn min Kalām Sayyid al-Mursalīn*, 3. *Bulūḡ al-Marām min Adillat al-Aḥkām*, 4. *Syarḥ Ṣaḥīḥ Muslim li al-Nawawī*. For the group of books on *fiqh*, six books are taught, namely: 1. *Irsyād al-'Ibād Ilā Sabīl al-Rasyād*, 2. *Al-Muhazzab fī Fiqh al-Imām al-Syāfi'ī*, 3. *Tanwīr al-Qulūb fī Mu'āmalah 'Ālam al-Guyūb*. For the group of books with the main category of Sufism, four books are taught, namely: 1. *Syarḥ al-Ḥikam al-'Aṭā'iyyah li Ibn 'Aṭā'illāh al-Sakandarī*, 2. *Maw'izah al-Mu'minīn min Iḥyā' 'Ulūm al-Dīn*. The religious books mentioned are the same ones studied in most traditional pesantrens in Indonesia, particularly those aligned with the *Ahl al-Sunnah wa al-Jamā'ah* ideology (those who follow the Prophet's traditions and the practices of the majority of the Muslim community).

Online halakah of Pesantren As'adiyah, along with other online programs about and from this pesantren, can be accessed on various internet media platforms such as the following. Those platforms are managed by a special unit within the pesantren called "As'adiyah Channel" to create and manage online program contents:

YouTube: <https://www.youtube.com/c/SantriAsadiyah>

Facebook: <https://web.facebook.com/Asadiyahpusat>

Twitter: <https://twitter.com/AsadiyahPusat>

TikTok: <https://www.tiktok.com/@asadiyah.channel>

Instagram: <https://www.instagram.com/asadiyahpusat/>

This online media platform owned and operated by the Pesantren As'diyah community has been followed, subscribed, liked, and commented on by tens of thousands of people in Indonesia and abroad. And, based on their comments on the related media platform, these people admit that they enjoy and benefit especially from the parallel halaqah sessions posted on the social media platform.

G. Effectiveness, Challenges and Opportunities of Online Halaqah: The Case of Pesantren As'adiyah

The following summary is based on interviews conducted during research on online halaqah at Pesantren As'adiyah. In addition to face-to-face meetings, the authors conducted online interviews via WhatsApp voice calls with informants from remote areas, such as North Kalimantan, Southeast Sulawesi and Northwest Papua. The informants highlighted several advantages and disadvantages of online halaqah.

First, they emphasized easier accessibility. Online halaqah can be attended by anyone worldwide with a smart device and internet connection, allowing participation beyond geographical boundaries. This benefit was particularly noted by informants in rural South Sulawesi, who never imagined being able to attend Pesantren As'adiyah's halaqah (as *passema'*) online due to distance and cost constraints. Second, informants appreciated the flexibility of online halaqah. While they could not always attend live streaming, they could access recorded halaqah sessions at their convenience. This flexibility made it easier for those with busy schedules to engage with the materials.

Time and cost savings were also highlighted, especially by those living in Sengkang, where attending in-person halaqah required traveling a kilometer or more. Online halaqah allowed participants to join from home or a cafe, even after performing dawn prayer at the mosque. Before online options, halaqah could only be attended physically or via RSA radio. Additionally, online halaqah provides access to a variety of topics, unlike fixed schedules in traditional settings. Participants can choose topics of interest and replay recordings of difficult lessons for better understanding. This format also benefits individuals with physical or mobility limitations, making it more inclusive.

However, online halaqah also has weaknesses that were highlighted by some informants. The lack of direct and personal interaction between teachers or kiai and students and other types of participants is one of the main shortcomings. In the pesantren environment, halaqah not only functions as a learning medium, but also as a means of building community and social ties. This may be less realized in online halaqah, and this is the main weakness of this format. This weakness is also related to the problem of transmitting (divine) grace or blessing (A, *barakah*, B, *barekka'*).

Barekka' is an important characteristic of religious education in pesantren. In the pesantren tradition, it is believed that receiving *barakah* from an ulama's knowledge requires complete obedience and adherence to the teacher's direct guidance, particularly in personal, face-to-face learning interactions. In other words, the effectiveness of acquiring knowledge is considered less reliant on a student's intellectual ability —such as what might be gained through online halaqah sessions— and more dependent on their moral conduct and respect towards their teacher.³⁴

In online halaqah teaching, discussions feel less natural, and nonverbal communication is lost. The virtual environment may be less able to create a deep spiritual atmosphere as occurs in face-to-face halaqah meetings. From an educational perspective, this weakness is part of the pedagogical barrier. This barrier is also felt by students and teachers in all pesantren. Pedagogical barriers include difficulty understanding lessons, especially those that require classroom practice and experiments. All of this affects the decline in student grades. Several students interviewed complained that the online learning program in the pesantren during the Covid-19 pandemic was not effective for them who needed additional guidance from outside the pesantren curriculum. From the pesantren teachers, it is known that the students' interest in learning during the online pesantren program has decreased significantly. One of the causes is the lack of direct interaction between students and their peers or teachers or pesantren supervisors. They feel that virtual interaction between teachers and students is very different from face-to-face interaction in the classroom, mosque or other pesantren environment.

Another major problem is that online pesantren learning is inadequate to achieve the essence of pesantren learning, which not only focuses on transferring knowledge but also instilling moral values. According to these teachers, morals must be taught directly through the example shown by the teacher or kiai, and online learning is not an adequate means to achieve this goal. The last point is also related

³⁴ For the pertinence of *barakah* in pesantren milieu, and more specifically among Pesantren As'adiyah community, see, Wahyuddin Halim, "As'adiyah Traditions: the Construction and Reproduction of Religious Authority in Contemporary South Sulawesi" (PhD Dissertation, the Australian National University, 2015). See, particularly Chapter 3.

to the complaints of several informants among teachers and kiai. They pointed to the lack of accountability for online halaqah participants. According to them, it is difficult to ensure those pesantren students who participated in online halaqah during the Covid-19 pandemic remain motivated and focused. They noted that although some are motivated, the level of enthusiasm, seriousness and responsibility of the participants is not as strong as in conventional halaqah.

Another issue is related to technical disruptions, such as poor internet connections or problems with video conferencing platforms. These can disrupt the experience of halaqah participants. In general, in an online environment, participants tend to be more easily distracted by surrounding factors, which can reduce the effectiveness of learning. In practice, to go online, pesantrens face various obstacles, including technological, financial, and pedagogical obstacles. Students and teachers admit that the most common technological obstacles are frequent disruptions to internet network stability and the limited internet quota that they can access.³⁵ Informants mentioned about an internet quota assistance program provided by the government during the pandemic, but they acknowledged that this program did not completely solve the problem because the quota provided could only be used for certain sites. Not all applications or sites that support online learning can be accessed using this quota.

These technical disruptions are even worse when associated with the digital divide mentioned above. This gap can be caused by various factors, including socio-economic status, geographic location, age, education level, and others. Cases of more or less the same gap were also found in a number of countries during the Covid-19 period. Hashemi in his research, for example, revealed the challenges of online learning in Afghanistan, such as limited infrastructure, the digital divide, and the readiness of teaching staff. However, Hashemi's research also shows opportunities in the form of increasing digital literacy and learning flexibility.³⁶

³⁵ For technical barriers such as internet connectivity in online learning in several pesantrens during the COVID-19 pandemic, see, Hendarmin et al., *Pesantren dan Pandemi: Bertahan di Tengah Kerentanan* (Jakarta: PPIM UIN Jakarta, 2022).

³⁶ Lihat, Aminuddin Hashemi, "Online Teaching Experiences in Higher Education Institutions of Afghanistan during the COVID-19 Outbreak: Challenges and Opportunities," *Cogent Arts & Humanities* 8, no. 1 (2021), <https://doi.org/https://doi.org/10.1080/23311983.2021.1947008>.

The conditions described by Hashemi above are almost identical with the experience of organizing online halaqah at Pesantren As'adiyah. Especially at the beginning of its operation, technological and economic constraints are also the main obstacles faced by this pesantren. However, the experience of moving in the digital realm also paved the way for a technology-based educational transformation at a higher and more varied level. In the authors' opinion, the community of Pesantren As'adiyah has shown their overall receptiveness and adaptability to advanced digital media technologies and has managed to take significant advantage in using them for religious and educational purposes. Elsewhere Halim has examined how some members of this pesantren community engages with social media platforms such as Facebook and YouTube, underscoring its adaptation and utilization of digital platforms for religious and educational purposes.³⁷

Overall, it can be said that online halaqah, as in the case of Pesantren As'adiyah, has proven to be increasingly effective and potential to become a key medium for studying and teaching Islamic knowledge to a wider community in the future. In their study, Haris and Nurfaika conclude that Pesantren As'adiyah has embraced the digital era by evolving from Radio Suara As'adiyah to As'adiyah Channel, effectively presenting textual studies on classical Islamic knowledge and engaging a broad audience, especially in Eastern Indonesia, while leveraging digital literacy, millennial collaboration, and civil society-based *da'wah* to build national and global networks with a distinctive Bugis cultural identity.³⁸ Technological disruption challenges Islamic boarding schools to maintain traditional values while integrating modern management and technology in education. Halimah, Yusuf, and Safiudin's research highlights the importance of an Islamic education model that is responsive to advanced technology while preserving the essence of religious

³⁷ See, Wahyuddin Halim, "Young Islamic Preachers on Facebook: Pesantren As'adiyah and its Engagement with Social Media," *Indonesia and the Malay World* 46, no. 134 (2018), <https://doi.org/https://doi.org/10.1080/13639811.2018.1416796>; and, Wahyuddin Halim, "Paths to Celebrity Status The Significance of Social Media for Islamic Preachers from South Sulawesi," *American Ethnologist*, no. 2017/11/8 (2017). <http://americanethnologist.org/features/collections/piety-celebrity-sociality/paths-to-celebrity-status>.

³⁸ Abd. Haris and Nurfaika, "Pesantren on Digital Era: Tantangan dan Peluang Pondok Pesantren As'adiyah Sengkang Sulawesi Selatan," *IMEJ: Innovations in Multidisciplinary Education Journal* 1, no. 2 (2024).

teachings, thereby postering educational methods and curriculums that are relevant, adaptive, and inclusive in the digital era.³⁹

As Sanusi notes, although the digital era poses such challenges as limited access to technology and digital literacy, it also opens up opportunities for Islamic education, including pesantren, by making it easier to access knowledge sources, encouraging independent learning, and presenting innovations such as gamification and interactive media that are more suited to the learning styles of the digital generation.⁴⁰ However, it remains important to recognize both the strengths and weaknesses of the digital learning format before Islamic education institutions such as pesantren adopt it as its regular or main program educational program. The emergence of future pesantrens that effectively integrate various platforms of digital media technology into their Islamic education programs while preserving their distinctive values and traditions is something to look forward to.

H. Conclusion

This study examines the implementation of online halaqah at Pesantren As'adiyah, a significant innovation in Indonesia's traditional pesantren education system during and after the Covid-19 pandemic. The adoption of digital technology at this pesantren was not merely a response to social restrictions but a strategic effort to extend Islamic education and preaching to national and global audiences. While online halaqah alters the traditional face-to-face interaction between kiai and students, it offers greater accessibility and flexibility, benefiting diverse groups, including the Bugis diaspora outside South Sulawesi.

Despite its benefits, online halaqah faces notable challenges, including the digital divide, limited infrastructure, and low digital literacy, which hinder its effectiveness. The lack of personal interaction and spiritual atmosphere, along with reduced student motivation and the difficulty of instilling moral values through direct role models, are key limitations. Moving forward, Pesantren As'adiyah's experience can serve as a model for other pesantren's digital transformation. However, this requires strategic

³⁹ Siti Halimah, Achmad Yusuf, and Khamdan Safiudin, "Pesantren Education Management: The Transformation of Religious Learning Culture in the Age of Disruption," *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 9, no. 3 (2024).

⁴⁰ Muhammad Sanusi, "Transforming Islamic Education in the Digital Age: Challenges and Opportunities for the Young Generation," *Attractive: Innovative Education Journal* 6, no. 3 (2024), <https://doi.org/https://doi.org/10.51278/aj.v6i3.1479>.

integration that preserves pesantren traditions of spirituality and role modeling. Collaborative efforts from the government, pesantren, and community are essential to address technological barriers and enhance digital literacy, ensuring the sustainability of this innovation in Islamic education.

References

- Amiruddin, Gita Asyari, Khalid Samahangga Damanik, and Dara Avira. "Mengenal Jenis Pesantren Salafiyyah, Khalafiyyah dan Komprehensif di Pondok Pesantren Salafiyah Luqmanul Hakim Marelan." *Innovative: Journal Of Social Science Research* 4, no. 3 (2024): 16099-111. <https://doi.org/https://doi.org/10.31004/innovative.v4i3.12136>.
- As'ad, Muhammad. "Pondok Pesantren As'adiyah." *Jurnal Al-Qalam* 15, no. 24 (2009): 335-54.
- Bruinessen, Martin van. *Kitab Kuning, Pesantren dan Tarekat [Edisi Revisi]*. Yogyakarta: Gading Publishing, 2012.
- Budiyanti, Nurti, S. Supiana, and Qiqi Yulianti Zakiah. "Implementasi Kebijakan Sistem Pembelajaran Daring di Pesantren Persatuan Islam 1-2 Bandung pada Masa Pandemi Covid-19." *Dirasah* 4, no. 2 (2021): 45-60. <https://doi.org/https://doi.org/10.29062/>.
- Dhofier, Zamakhsyari. *Tradisi Pesantren: Memadu Modernitas untuk Kemajuan Bangsa*. Yogyakarta: Pesantren Nawesea Press, 2009.
- Dijk, Jan van. *The Digital Divide*. Cambridge, UK: Polity Press, 2020.
- Halim, Wahyuddin. "Arung, Topanrita dan Anregurutta dalam Masyarakat Bugis Abad XX." *Al-Ulum* 12, no. 2 (2012): 317-34.
- . "As'adiyah Traditions: The Construction and Reproduction of Religious Authority in Contemporary South Sulawesi." PhD Dissertation, the Australian National University, 2015.
- . "The Mass Production of Religious Authority: A Study on a Ma'had Aly Program in South Sulawesi, Indonesia." *Islamic Studies Review* 1, no. 2 (2022): 161-80. <https://doi.org/https://doi.org/10.56529/isr.v1i2.83>. <https://journal.uiii.ac.id/index.php/isr/article/download/83/114>.
- . "Paths to Celebrity Status the Significance of Social Media for Islamic Preachers from South Sulawesi." *American Ethnologist*, no. 2017/11/8. (2017). <http://americanethnologist.org/features/collections/piety-celebrity-sociality/paths-to-celebrity-status>.
- . "Young Islamic Preachers on Facebook: Pesantren As'adiyah and Its Engagement with Social Media." *Indonesia and the Malay World* 46, no. 134 (2018): 44-60. <https://doi.org/https://doi.org/10.1080/13639811.2018.1416796>.
- Halimah, Siti, Achmad Yusuf, and Khamdan Safiudin. "Pesantren Education Management: The Transformation of Religious Learning Culture in the Age of Disruption." *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 9, no. 3 (2024): 648-66.
- Haris, Abd., and Nurfaika. "Pesantren on Digital Era: Tantangan Dan Peluang Pondok Pesantren As'adiyah Sengkang Sulawesi Selatan." *IMEJ: Innovations in Multidisciplinary Education Journal* 1, no. 2 (2024): 48-60.

- Hashemi, Aminuddin. "Online Teaching Experiences in Higher Education Institutions of Afghanistan During the Covid-19 Outbreak: Challenges and Opportunities." *Cogent Arts & Humanities* 8, no. 1 (2021): 1-22. <https://doi.org/https://doi.org/10.1080/23311983.2021.1947008>.
- Hendarmin, Laifa Annisa, Ida Rosyidah, M. Iqbal Nurmansyah, Farha Kamalia, and Alvin Noor Sahab. *Pesantren Dan Pandemi: Bertahan Di Tengah Kerentanan*. Jakarta: PPIM UIN Jakarta, 2022.
- Hidayah, Nurul, Mujiburrohman, and Meti Fatimah. "The Yellow Book Learning Strategy in Salaf Islamic Boarding Schools to Increase Arabic Vocabulary." *Risalah: Jurnal Pendidikan dan Studi Islam* 10, no. 1 (2024): 59-67. https://doi.org/https://doi.org/10.31943/jurnal_risalah.v10i1.624.
- Ila'hi, Wahyu. "Online Education: Online Pesantren." In *Ritual in a Digital Society*, edited by Martin Hoondert and Suzanne van der Beek, 123-40. Amsterdam: Institute for Ritual and Liturgical Studies, Protestant Theological University and Institute for Centre for Religion and Heritage, University of Groningen., 2019.
- Kholifah, Siti. "The Dynamics of the Pesantren Adaptation Patterns Amid the Covid-19 Pandemic." *Religious: Jurnal Studi Agama-Agama dan Lintas Budaya* 6, no. 1 (2022): 25-38 <https://doi.org/https://doi.org/10.15575/rjsalb.v6i1.15113>.
- Laoebela, Basthian A., Gerald Aldytia Bunga, Nanny Mayasari, and Unggul Sagen. "Impact of Internet Culture on Indonesian Values and Moral Decision Making." *Journal of Digital Law and Policy* 2, no. 2 (2023).
- Makdisi, George. *The Rise of Colleges: Institutions of Learning in Islam and the West*. Edinburgh: Edinburgh University Press, 1981.
- Mastuhu. *Dinamika Sistem Pendidikan Pesantren: Suatu Kajian tentang Unsur dan Nilai Sistem Pendidikan Pesantren*. Jakarta: INIS, 1994.
- Matthes, Benjamin F. *Boegineesch-Hollandsch Woordenboek* Gravenhage: M. Nijhoff, 1874.
- Mustofa, Mahmud Yunus, Abdurrahman Mas'ud, and Misbah Zulfa Elizabeth. "Hybrid Pesantren in Indonesia; Analyzing the Transformation of Islamic Religious Education in the Digital Age." *Al-Tadzkiyyah: Jurnal Pendidikan Islam* 14, no. 1 (2023): 79-104.
- Pederson, Johannes. "Masdjid." In *Shorter Encyclopedia of Islam*, edited by H.A.R. Gibb and J.H. Kramers, 330-53. Leiden, Netherlands: E.J. Brill, 1953.
- Qudsy, Saifuddin Zuhri. "Pesantren Online: Pergeseran Otoritas Keagamaan di Dunia Maya." *Living Islam: Journal of Islamic Discourses* 2, no. 2 (2019): 169-87. <https://doi.org/https://doi.org/10.14421/lijid.v2i2.2010>.
- Rifaa'i, Akhmad. "E-Dakwah dalam Pesantren Virtual." *Millah: Jurnal Studi Agama* 9, no. 1 (2016): 35-50.
- Sanusi, Muhammad. "Transforming Islamic Education in the Digital Age: Challenges and Opportunities for the Young Generation." *Attractive: Innovative Education Journal* 6, no. 3 (2024): 206-15. <https://doi.org/https://doi.org/10.51278/aj.v6i3.1479>.
- Syafrin, Syafrin, and Muslimah Muslimah. "Problematisasi Pembelajaran E-Learning di Masa Pandemi Covid-19 bagi Santri Pondok Pesantren Al-Hasyimiyyah Kotawaringin Barat." *Jurnal Al-Qiyam* 2, no. 1 (2021): 11-16. <https://doi.org/https://doi.org/10.33648/alqiyam.v2i1.108>.

Syarif, Zainuddin, Syafiq A. Mughni, and Abd Hannan. "Responses of Pesantrens in Madura Towards the Covid-19 Pandemic." *Journal of Indonesian Islam* 15, no. 1 (2021): 47-74. <https://doi.org/https://doi.org/10.15642/jiis.2021.15.1.47-74>.

Winarko, Bambang "Content, Benefits, and Development of Pesantren Online in Indonesia." *Malaysian Journal of Library & Information Science*, 12, no. 2 (2007): 57-75.

Websites:

<https://katadata.co.id/analisisdata/610a57cd5f37d/ekonomi-digital-indonesia-terganjal-pemerataan-adopsi-internet> (Accessed in October 30, 2024).

https://tekno.kompas.com/read/2023/02/13/19300087/pengguna-internet-di-indonesia-tembus-212-9-juta-di-awal-2023#google_vignette (Accessed in October 30, 2024).

<https://dataindonesia.id/internet/detail/apjii-pengguna-internet-indonesia-21563-juta-pada-20222023> (Accessed in October 30, 2024).