






From the scriptural to the virtual: Indonesian engineering students responses to the digitalization of Islamic education

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Abstract

Digitization has transformed how religion is studied, with religious education shifting from text-based (scriptural) to media-based (virtual). This study seeks to understand how Muslim young adults in Indonesia have responded to the digitization of Islamic education, examining not only trends in digital religious education, but also their implications for Islamic education. It employs a qualitative descriptive approach, using observation, interviews, and focus group discussions to collect data. It finds that religious education has transformed from face-to-face discussions with religious scholars into mediated online interactions. This has resulted from three factors: the ease and affordability of online religious media, the cost and time efficiency inherent to online media, and the diversity and comprehensiveness of available digital media. This study recommends that future researchers investigate how online media can be used to promote a deeper religious understanding.

KEYWORDS

digitization, Indonesia, Islamic education, mediatization, young adults

1 | INTRODUCTION

The era of technological disruption has transformed how people see and do religion. Various technological advances adopted by the general public have provided new spaces for learning and understanding religion. Virtual media has transformed how religious learning occurs, such that educators must adapt rapidly (Eickelman & Anderson, 2003).

This can be seen in everyday religious practices, including those of Indonesia's Muslims. For those with a command of technology and its features, the media has become a productive and effective means of conveying religious knowledge (Campbell, 2010; Scannell, 2016). It has thus taken an important role in religious education, including Islamic education (Ishak & Solihin, 2012; Törnberg & Törnberg, 2016). This can be seen, for example, in Indonesia, where (according to a survey of the Indonesian Internet Service Providers' Association [Asosiasi Penyelenggara Jasa Internet Indonesia, APJII]) the internet was accessed by 143.26 million people in 2017 (APJII, 2017, p. 6).

The intensity of internet use in Indonesia has transformed religious education in the world's largest Muslim-majority country. Indonesian social life is inexorably linked with Islam, and technology has used its features to spread their religious understandings and contribute to the corpus of religious knowledge (Bunt, 2009). Indonesians have used technology to organize and reconstruct their religious experiences, thereby conditioning themselves to recognize their physical realities and to promote positive social behaviors. They recognized that the quality of a people is positively correlated with its level of education (Kimonen, 2015).

Studies of religious education and the media have generally fallen into three categories. First are those studies that examine religious education within the context of digital space and rapid technological advances (Kuenzi, 2018). Second are those studies that perceive accommodative religion as a central part of online religious education (Jackson, 2013; Sumarto & Harahap, 2019; Syahputra & Hafiar, 2019). Campbell and Connelly (2015), for example, argue that the new media used by Western societies (including social networks, forums, and applications) have significantly influenced cultural and religious practices. Third are those studies that examine how religion and religious education have transformed to incorporate internet media (Abdullah, 2017; Hjarvard, 2011; Pennington & Kahn, 2018). Generally, studies have examined the effectiveness of new media in religious education; few have considered the implications of digitization for religious belief, practice, and education.

The current study seeks to fill this gap, complementing the existing literature by investigating the digitization of religion on social media and through audio-visual media. At the same time, it explores how religious education has transformed in the face of rapid advances in and widespread adoption of information technology. Three research questions are asked:

1. How has religious digitization been practiced by Indonesian engineering students,
2. What factors influence Indonesian engineering students usage of digital media to learn Islam in the current era of technological disruption;
3. What are the implications of digitization for religious education. The answers to these three questions will provide a better understanding of how religious education has transformed and its implications for the subject matter taught.

This article is built on three arguments about the mediatization of religious education. First, the digitization of religious education in Indonesia has caused significant shifts in learning patterns, with face-to-face meetings being replaced by online-mediated communication. Second, as technology has become more easily accessed, religious education has generally promoted formal and symbolic Islamic values that could create misperceptions and misrepresentations of the religion. A deep understanding of Islam cannot be achieved rapidly, as religion requires a lengthy study that promotes dialogue and contextuality. Third, rapid advances in digital technology have promoted openness and comprehensive reform, as online education necessitates new systems and human resources.

2 | METHODOLOGY OF RESEARCH PROCESS

Religious education, leaders, and media are inexorably related. Religious knowledge, which was once derived solely from sacred texts (i.e. scriptural sources), is now disseminated through virtual means. The current discussion of religious education provides a qualitative description, exposing reality as it is experienced (Moleong, 2017). In doing so,

it explores the processes, factors, and implications of the digitization of religious education, using Muslim university students in Yogyakarta as representative of Indonesian young adults and their learning processes. It focuses on ongoing social phenomena, as well as the motives and motivations that drive particular behaviors (Hancock et al., 2009).

Data were collected through direct observations of media use, in-depth interviews with respondents, and focus group discussions (FGD) with students; data were also collected through direct observations of classroom activities, interviews with lecturers and students, and discussions with involved engineering students. The selection of engineering students in this study was based on the number of engineering students, which is larger than non-engineering students. Besides, most engineering students have no educational background in religion. Thus, their spirit of understanding religion tends to be more textual rather than contextual. Likewise, technology and social media for engineering students have higher and better intensity than non-engineering students. This study's qualitative descriptive approach is informed by the method introduced by Hammersley and Atkinson (2007), which is used to understand how digitization has affected religious education in Indonesian society. Data were analyzed using the stages identified by Sugiyono (2016): collection, reduction, presentation, conclusion, and verification.

3 | THEORETICAL PERSPECTIVE

Education has been a main driver of secularization, being used to improve students' cognitive skills, teach them to critique authority, and cultivate both personal autonomy and interpretation. As such, religious education is necessary to maintain public religiosity (Kuenzi, 2018, p. 255). In many countries, religious education has been used as an instrument for promoting multiculturalism and pluralism, being mandatory for all elementary and secondary students. Although specific approaches vary, such education is frequently used to instill children with religious and ethical values, in accordance with their own traditions (Ubani et al., 2019, p. 10).

In England and Wales, religious, moral, and civil education were closely intertwined through the end of the 1950s. Being seen as necessary for achieving moral and civil goals, following the end of World War II, the British government incorporated a 'non-denominational' Christian model of religious education. In the 1960s, this model became increasingly challenged by the rising surge of secularization that was sweeping academia, theology, and philosophy (Jackson, 2013, p. 5). Lacking a national curriculum for religious education, many schools created their own courses, using such names as "Beliefs and Values," "Religion," "Belief and Religion," and "Philosophy and Ethics." Among the causes of this trend was the desire to create a more inclusive model of religious education (Bråten & Everington, 2018, pp. 7–8).

Islamic education, meanwhile, refers to efforts to teach Islamic thought to students. As stated by Kuntowijoyo (2007, p. ix), "as long as Islam is understood as merely transcendental, with everything considered *halal* and *haram*, Islam will not be able to influence people or answer the problems of society and humanity." According to Hanafi (2011), debate over the epistemology of Islamic education occurs owing to the contestation of theocentric and anthropocentric paradigms. Mastuhu argues that it is therefore necessary to prioritize the empirical over the transcendental (Tabrani, 2013, p. 76), thereby enabling Islamic education to incorporate both theocentric and anthropocentric paradigms. Such a model of Islamic education would produce individuals with spiritual, physical, intellectual, and emotional strength, as well as the dynamicity and progressiveness needed in modern society (Lubis et al., 2010).

Religion provides a comprehensive and universal model that guides humans in their cultural, academic, economic and social activities, helping them better themselves (Purrostami, 2012). As such, religious education—including matters of doctrine and pluralism—is correlated with several aspects of everyday life (Zembylas et al., 2019). Education, religiosity, economic development, and democracy are interrelated; countries with higher levels of education tend to be less religious, and those with stronger democracies tend to have higher per capita incomes (Mocan & Pogorelova, 2017).

Many religious communities, however, have failed to consider the importance of religious education. Consequently, they have focused on public education, employing different approaches, agendas, and priorities than those used in religious education (Marshall, 2018). Government policies have likewise influenced parents' interest in sending their children to religious schools (Méon & Tojerow, 2018). Owing to their limited bureaucratic capacity, difficulty managing programs and policies, and poor service quality, as well as competition between stakeholders, institutions of religious education have received little support (Niño-Zarazúa, 2016).

Religious education provides an important basis for cultural education, shaping collective identities and influencing individuals and communities. Social interactions, between individuals and communities, often cause significant changes that follow specific patterns. In the twenty-first century, social behavior and transformations have been mediated predominantly by technology (particularly the internet). This phenomenon, a significant departure from previous centuries, has affected religious practices. Communities and individuals' use of new media has affected how they disseminate knowledge about religious ceremonies and how they shape their religious identities. As shown by Campbell and Connelly (2015, p. 273), this new media enables users to become involved in everyday religious activities, and as such informs social traditions, behaviors, and attitudes. User respond to new media based on their backgrounds and their ideologies, not being passive consumers but rather active readers with their own particular interests (Abdullah et al., 2019).

As stated by Lyon (in Beyer, 2015, p. 216), global communication media—including telephones, television, and the internet—have enabled social and religious networks to reach past the local (Beyer, 2015, p. 216). Mediated by the internet, religious communities around the world are able to interact directly. The literature identifies two dominant reasons for internet usage: cognitive, i.e. the search for and acquisition of necessary information, and social, i.e. the identification of and communication with persons who share similar beliefs and goals (Lev-On & Lissitsa, 2018, p. 3). At the same time, however, it is not uncommon for religious communities to be deeply suspicious of modern communication technology. Traditional and modern values are contested within cyberspace as religious individuals and communities use the internet to advance their specific interests.

Campbell and Connelly (2015, p. 274) argue that online religious trends should be understood as reflecting everyday religious tendencies. The social interactions that are facilitated by online media provide individuals with the opportunity to access power and authority, and thus gain influence in the religious hierarchy as well as the dominant power structure. Besides, it causes the intensity of religious literacy through new media (Campbell, 2010). Such influencers use internet technology to popularize specific religious values, understandings, and rituals, promoting their practice in everyday life. Krüger (2005, p. 7) emphasizes that these influencers create new religious structures and hierarchies through their digital discussion forums, wherein they participate in the knowledge production process. Holland (in Krüger, 2005, p. 7) argues that this influences the social structure, with power and social control becoming distributed amongst the masses rather than centralized.

4 | RESULTS AND DISCUSSION OF RESEARCH

4.1 | Responses to the digitization of religion

Digital religious media has long been used and consumed by young adults around the world. Technological advances have not only had cultural, economic, and political effects (Harahap, 2013), but also significantly informed the development and dissemination of religious knowledge (Abdullah, 2017). The rise of new media has also stimulated the emergence of new religious values. A new theology has emerged, wherein young adults can more easily access religious knowledge through the internet. As stated by one lecturer:

Students, when asked in class about religious matters, mostly open their cell phones to look for the answer. Similarly, when students are asked to do group presentations, they use their cellular phones to look up answers and respond to questions (interview with DR, 2020).

The internet is a digital product that conveys new religious values to Indonesian society (Pabbajah, Abdullah, et al., 2020). It is thus used to access religious values and mediate religious education. Websites such as YouTube, Instagram, and Facebook are widely used to disseminate specific values and dogmas, as well as to spread particular understandings of Islam. Anyone seeking to reference the Qur'an and Hadiths need only click on a link or enter terms into a search engine. According to Wahyudin (2017), the new media has many functions. It does not only serve to distribute information to the public; it is also an industry, wherein all opportunities for profit are seized and commodities are provided. The logic of commodification thus underpins the creative process, as well as the language through which individuals and organizations express themselves and validate their beliefs (Murdock, 2008). According to Bunt (2009), the commodification of new media is often used to buttress the dominant ideology and reinforce the existing social structure.

Such a condition was readily apparent in discussions with students. In the classroom, students frequently sought answers to religious questions on the internet. All of them had smart phones, with a multitude of features as well as religious applications.

Cellular phones, or smart phones, are necessary for us students. They not only promote communication, but also function as educational media, including Islamic educational media. For example, how to read the Qur'an, how to pray ... on YouTube we can hear sermons and religious lectures. If we want to answer religious problems, we just have to Google it. (Focus group discussion, 2020).

4.2 | Factors driving the digitization of Islamic education

The current transformation of Islamic education amongst young adults has been driven by the ease of access to social media and other digital media. This can be attributed to three factors. First, internet access is easy and affordable, being available at any place and at any time. When making presentations in class, students are often seen using their cellular phones to find answers to their friends' questions. Service providers have made telecommunications affordable by making data packages readily available. Using smart phones, students can easily find textual answers through search engines.

In a classroom discussion, one student stated:

Now there's no need to make too much effort to learn, including to study religion. There are many online facilities and media that can be readily accessed, as desired (interview, 2020)

Second, shifts in Islamic education have been precipitated by the use of the internet to obtain materials. Educational material is readily available online, and as such religious literacy has increased rapidly. If material is not available online, young adults are generally uninterested. As stated by one student:

We can no longer exist without the internet. The important thing is that we desire to learn about religion. Everything is available online. The digital Quran, the Hadiths, even scholarly opinions (interview, 2020).

Third, various religious media can be readily accessed on the internet. Such mediatization is evident, for example, in the uploading of recordings of sermons and religious lectures; such media have become increasingly prevalent as Indonesians have become increasingly interested in religious matters. At the same time, *ulama* and other religious scholars who desire to maintain their public presence have used their creativity and innovativeness to disseminate their religious views through digital media. As stated by one student during a focus group discussion:

If an ulama or ustadz wants to be famous, he needs to be media literate and tech savvy. That way there, we do not need to go directly to the mosque or sermon. Online media can be used for learning (Focus Group Discussion, 2020).

As a result, young adults have embraced a virtual religious education, rather than a scriptural one. According to Sumarto and Harahap (2019), the social structure has consequently been transformed through individual and collective efforts to change public perceptions and practices of religion. Recent changes are also evident in education reform. Muslims' resistance to reform has slowly but surely produced a system that attempts to cover shortcomings and address imperfections (Pratama & Zuhijra, 2019). There has been a tendency to prioritize the cognitive over the affective, to preserve traditional values while resisting all Western values and ideals.

Such a situation has posed its own challenges, particularly within the context of Western universality and hegemony (Said, 2019). There has been opposition to the Occidental agenda, wherein scholars have emphasized the rational and social reality in their *ijtihad* and exegesis (Said, 2019). To deal with difficult modern issues such as terrorism, genocide, and human trafficking, as well as to protect human rights and improve human resources, Sidiq (2017) argues for an open Islam. Such an understanding of religion, according to Sidiq (2017), will enable Islam to facilitate global development. Such an Islam must not be limited to individual perceptions; it must also be embraced by Islamic educational institutions and incorporated into their curricula and their policies (Mukaffan & Siswanto, 2019; Syahputra & Hafiar, 2019).

4.3 | Implications of digitization for Islamic education

Advances in modern science and technology necessitate new teaching methods (Nurmukhametov et al., 2015). As stated by Lips (2013), it is common for students to have a better understanding of technology than their teachers (who often rely on conventional educational media). Innovative pedagogy is thus necessary (Lips, 2013). Likewise, discussion of technologization in the literature has often stated that those who best use technology are those who wield power. According to Birbirso (2013), the main reason the Ethiopian government introduced information technology to the classroom was because "we are in a global world"; this indicates an ideological desire to control teachers and students through technology. Students have become dependent on technology, driven not only by advances in computer and information technology, but also by a desire for efficiency and practicality (Campbell, 2016). At the same time students lose the ability to empathize with others and the sensitivity necessary to understand their contexts (Pabbajah, Abdullah, et al., 2020).

A similar question was examined by Blair and Monske (2003), who question the benefits of the rapid implementation of educational technology. They ask that readers critically consider whether students and their teachers benefit from these technologies, or whether these technologies reduce the availability of employment and learning opportunities. At the same time, there are geopolitical issues, such as whether technological advances will increase or reduce diversity (Pickering, 1997). According to Stone (2006), technologization has created a limited concept of education, one that does not welcome diversity or alternatives. The technologization of education, and the accompanying digital innovations, has significantly transformed the learning process (including in Islamic education). The availability of readily accessible media, as well as various facilities, has accelerated the consumption of educational materials (Campbell, 2012).

The ongoing digitization process has implications for religious education, particularly among university students. Take, for example, the use of online visual media such as YouTube. Visual media can freely and openly be accessed by the public, and are thus used to access sermons by popular preachers and other religious materials. This has influenced how Islamic education is provided; where sermons were once delivered directly, and education was imparted through face-to-face communication, these activities are now mediated through virtual and online media.

The digitization of Islamic education has three implications, as observed in the field. First, there has been reduced religious literacy amongst students, who have become dependent on the internet for educational and

religious material. Second, students lack an understanding of religious matters, instead searching for answers as questions arise; they use the media spontaneously, rather than deepening their understanding through religious texts and resources. Third, students' passion for and dedication to their religion has not correlated with their religious knowledge. In other words, the digitization of religion has increased students' passion for religious matters, particularly as visual materials are more accessible.

The intensity of using technology is not only because it is more accessible but also because it can provide information faster. It becomes a reason for increasing engineering students' interest to discover religious material virtually rather than scripturally. Hence, the discovery of religious material virtually leads to incomprehensive religious understanding where students tend to only know it without understanding the essence of religious material itself. In this case, the enthusiasm or passion of engineering students in studying religion tends to be more pragmatic, only to know "what" not "why" and even ignore religious teaching ideology, such as Islamophobia (Dorroll et al., 2019). Thus, pragmatic religious learning may decrease the understanding of religion as represented by engineering students.

Campbell and Connelly (2015) show that internet media has significantly influenced contemporary Western culture, including religion, as such matters are facilitated through online discussions on social networks, forums, and applications. Such media, popularly known as the 'new media', enable individuals to interact with each other instantaneously and facilitate their access to religious content and knowledge (Pabbajah, Jubba, et al., 2020). Campbell and Connelly (2015) further describe religious practices as being facilitated by internet-based technologies, wherein the faithful can conduct "virtual worship" or read sacred texts online. At the same time, however, the new media has resulted in the personalization of religious rituals, including worship and pilgrimage. Ultimately, this has all contributed to the shift from the scriptural to virtual.

5 | CONCLUSIONS

The ongoing shift from scriptural to virtual Islamic education in Indonesian society cannot be separated from the ongoing digitization of religion and the use of online media. The most important finding of this study is that young adults, here represented by university students, have three tendencies in their religious understandings. First, the ongoing digitization process has resulted in a paradigm shift regarding the sources of religious knowledge. Second, new sources of religious knowledge have been made possible by the accessibility and affordability of internet services, as a result of which numerous online media have begun using online media to impart religious lessons. Third, the ongoing digitization of religious education has not only had positive implications (i.e. increasing passion for learning); it has also had the negative effect of reducing the depth of young adults' religious understanding.

This study, certainly, has a number of shortcomings and limitations in its analysis of religious education's ongoing transformation. One of the major limitations of this study is its small scale; as such, further research should examine the issue at a broader scale to achieve a deeper and more comprehensive understanding of this phenomenon. It is also necessary to conduct a detailed examination of digitization's effects on how religion is conceptualized, using the content analysis approach. Finally, this study recommends further investigation into the infrastructure and competencies that are necessary to optimize the use of media technology in religious education; only then could digital media become an effective and efficient tool for virtual religious education without abrogating the positive effects of the scriptural approach.

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How to cite this article: Pabbajah M, Jubba H, Abdullah I, Pabbajah MTH, Juhansar. From the scriptural to the virtual: Indonesian engineering students responses to the digitalization of Islamic education. *Teach Theol Relig*. 2021;24:122–130. <https://doi.org/10.1111/teth.12581>