

# To research online or not to research online: using internet-based research in Islamic Studies context

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## Abstract

Indonesia is the largest Muslim country and the eighth largest Internet user in the world. Around 78 million people in Indonesia use the Internet in their daily lives. This provides new opportunities for Islamic education institutions and Muslim scholars to utilise this online space as a new research setting. Non-Islamic education institutions and scholars have utilised the Internet as a new avenue to conduct research, while Islamic education institutions and Muslim scholars have yet to make use of online space for research purposes. While *dakwah*, education and other Islamic social phenomena are being practiced on online platforms, Muslim scholars are yet to go online to understand this phenomenon. This paper addresses why Islamic institutions and Muslim scholars should go online and utilise the Internet as a new setting in their research agenda. This paper offers researchers at Islamic institutions the opportunity to consider new data collection and triangulation strategies to enhance their research output and paradigm. The paper's discussion focuses on both quantitative and qualitative research methods. Some benefits of using social media in a research setting are discussed. Evidence that supports re-

searchers utilising social media for research purposes are also summarised. Future research needs to focus on the application of this idea in empirical contexts, as well as consider ethical issues.

Indonesia merupakan salah satu negara dengan penduduk Muslim terbesar didunia and pengguna Internet kedelapan besar didunia. Saat ini ada sekitar 78 juta penduduk Indonesia menggunakan Internet dalam keseharian mereka. Fakta ini menjadi peluang baru bagi lembaga pendidikan Islam dan para ahli Muslim untuk memanfaatkan sarana online tersebut sebagai salah satu tempat penelitian baru. Lembaga pendidikan umum dan para ahli non-Muslim telah lama memanfaatkan sara online tersebut untuk kepentingan penelitian mereka, sementara lambaga pendidikan Islam dan para pakar Muslim masih belum juga memanfaatkan peluang baru ini. Padahal sejumlah fenomena ke-Islaman sudah di praktekkan di dunia online seperti Dakwah, pendidikan, dan berbagai aktifitas sosial ke-Islaman lainnya. Tulisan ini mengkaji mengapa lembaga pendidikan Islam dan para ahli Muslim sudah harus merubah paradigma penelitian mereka dengan beralih ke dunia online sebagai tempat baru untuk melakukan penelitian. Tulisan ini menyimpulkan agar lembaga pendidikan Islam dan para ahli Muslim untuk mempertimbangkan strategi baru dalam pengumpulan data dan trianggulasi guna memperkaya hasil dan paradigma penelitian baik untuk penelitian kualitatif maupun kuantitatif. Tulisan ini juga menyajikan sejumlah keuntungan dari pemanfaatan dunia online sebagai arena baru penelitian. Sejumlah argumen dan contoh-contoh juga disajikan guna memperkuat hasil penelitian ini. Tulisan ini juga menyarankan agar kedepan ada penelitian lain yang menggunakan data empiris terkait perlunya pemanfaatan dunia online dalam penelitian terkait Islam.

**Key words:** *Internet-based research; Islamic online research; Muslim Scholars*

## **Introduction**

The emergence of computer-mediated communication (CMC), such as the Internet, has enabled a more interactive and collaborative kind of human interaction across the globe. Internet-based technologies are expanding and changing at an exponential rate. From business to education, young people to elders, world powers to third world countries, secu-

lar scholars to religious scholars—all have felt the impact of the web. The use of Internet-based data has become widespread in many academic fields (especially health research and education), Web-based techniques are becoming routine in the practice and study of politics, and online commercial and market research has become a billion-dollar industry.<sup>1</sup>

This online sphere has encouraged researchers, whether quantitative or qualitative, to expand their data gathering approaches<sup>2</sup>. However, non-Islamic institutions and researchers have taken more advantage of this online setting in their research practices than their Islamic counterparts. Quantitative researchers, for example, frequently gather data through web surveys<sup>3</sup> and emails<sup>4</sup>, while qualitative researchers gather data through online content analysis coding<sup>5</sup> and online interviews<sup>6</sup>.

Online research methods have developed quickly in response to rapid social and technological changes<sup>7</sup>. However, there is very limited use of Internet research to study Islamic issues, which is especially surprising given the extent to which Muslim scholars have traditionally been innovators in developing and refining data collection techniques that may be

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<sup>1</sup> Dan Farrell and James C. Petersen, “The Growth of Internet Research Methods and the Reluctant Sociologist”, *Sociological Inquiry*, Volume 60, Number 1 (2010), 114-125.

<sup>2</sup> Mary Ann Cantrell and Paul Lupinacci, “Methodological Issues in Online Data Collection.” *Journal of Advanced Nursing*, Volume 60, Number 5 (2007), 544-549.

<sup>3</sup> Samuel Lefever, Micheal Dal, and Asrun Matthiasdóttir, “Online data collection in academic research: advantages and limitations”, *British Journal of Educational Technology*, Volume 38, Number 4 (2007 ), 574-582.

<sup>4</sup> Judith L.M. McCoyd and Toba Schwaber Kerson, “Conducting Intensive Interviews Using Email: A Serendipitous Comparative Opportunity”, *Qualitative Social Work*, Volume 5, Number 3 (2006), 389-406.

<sup>5</sup> Noriko Hara, CurtisJay Bonk, and Charoula Angeli, “Content Analysis of Online Discussion in an Applied Educational Psychology Course”, *Instructional Science*, Volume 28, Number 2 (2000), 115-152.

<sup>6</sup> Janet E. Salmons, *Cases in Online Interview Research*, Thousand Oaks: Sage Publications, 2012, 56.

<sup>7</sup> Tristian Hooley, Jane Wellens, and John Marriott, *What is Online Research?: Using the Internet for Social Science Research*, New York: Bloomsbury, 2012, 47.

applied in every Islamic research context. The theoretical and online research foundations in the Islamic context have not kept pace with the growth and use of technology within the Muslim community.

Despite the seemingly widespread diffusion and use of the Internet in Muslim communities, Muslim scholars have yet to develop a clear understanding of the impact these technologies have had on our life and our research paradigm. Internet use throughout various aspects of Muslim life has increased significantly, for example in *dakwah*<sup>8</sup>, education<sup>9</sup>, economics<sup>10</sup> and politics<sup>11</sup>. Nevertheless, researchers within Islamic education institutions are yet to utilise this online space for their research. Most researchers in Islamic education institutions are mainly focused on gathering data through conventional methods such as interviews<sup>12</sup>, focus groups<sup>13</sup>, and ethnographic studies<sup>14</sup>.

A continued failure to utilise online space for research may result in poor research paradigms and reduced output of Islamic knowledge and

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<sup>8</sup> Nurdin Nurdin and Rusli, "Spiritualising New Media: The Use of Social Media for Da'wah Purposes within Indonesian Muslim Scholars", *Jurnal Komunikasi Islam*, Volume 3, Number 1 (2013), 1-21.

<sup>9</sup> Abulatifeh, Raed Fakhri, "The Effect of Using Islamic Education Related Websites on King Faisal University Students, Achievement in Methods of Teaching Islamic Education Subject", *Journal of Islamic and Arabic Education*, Volume 3, Number 1 (2011), 87-96.

<sup>10</sup> Norazlina Zainul, Fauziah Osman, and Siti Hartini Mazlan, "E-Commerce from an Islamic Perspective", *Electronic Commerce Research and Applications*, Volume 3, Number 3 (2004), 280-293.

<sup>11</sup> Mohammad Sadeghi Esfahlani and Aiden W. J. Buckland, "Facebook and Iranian Electoral Politics: An Actor Network Perspective", In TEM 2013, Proceedings of the Technology & Emerging Media Track - Annual Conference of the Canadian Communication Association (Victoria, June 5 - 7, 2013), eds. P. Ross and J. Shtern. Canada: Canadian Communication Association, 2013, 18.

<sup>12</sup> Barbara DiCicco-Bloom and Benjamin F. Crabtree, "The Qualitative Research Interview", *Medical Education*, Volume 40, Number 4 (2006), 314-321.

<sup>13</sup> David L. Morgan, *Focus Groups as Qualitative Research*, London: SAGE Publication, Inc 2007, 65.

<sup>14</sup> Andy Crabtree, David M. Nichols, Jon O'Brien, Mark Rouncefield, and Michael B. Twidale, "Ethnomethodologically Informed Ethnography and Information System Design", *Journal of the American Society for Information Science*, Volume 51, Number 7 (2000), 666-682.

development, given that more and more Islam-related issues are available online rather than offline. Muslim lives and activities are becoming more digitalised as Muslim individuals, groups, businesses and other Muslim organizations practice their activities in the online world. This phenomenon has created a new setting known as “online space”, which produces rich data and insights to be studied whether through a quantitative or qualitative approach.

The author believes that practicing Internet-based research in an Islamic studies context can deepen our understanding and allow triangulation in a topic being studied. The objective of the present study is to provide reasons for researchers under Islamic institutions to practice research in online spaces, as well as to provide insights on how this online space can be used in an Islamic research context. Accordingly, in this study, the author will answer the following research questions: Should researchers in Islamic education institutions use the Internet for new research settings? How can the Internet be used as a new research setting in an Islamic context?

The structure of this paper is as follows: the next section presents a literature review. Following the literature review section, the methodology used to write this paper is discussed, which is then followed by results and discussion. The conclusion is presented before the limitations of the research and some avenues for future study are presented in the final section.

## **Literature review**

The World Wide Web has become a crucial part of modern life since its emergence, due to its ability to facilitate communication and structure contemporary society<sup>15</sup>. People are able to interact and collaborate in an

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<sup>15</sup> Jennifer Yang Hui, “The Internet in Indonesia: Development and Impact of Radical Websites”, *Studies in Conflict & Terrorism*, Volume 33, Number 1 (2010), 171-191.

efficient and effective manner via various Internet platforms. The Internet also became the most powerful harbinger of social change the world has ever seen<sup>16</sup>. In this study, the World Wide Web/Internet is understood as a techno-social system through which humans interact based on technological networks<sup>17</sup>.

The first World Wide Web was created in the 1990s in a lab at CERN in Geneva, Switzerland by Tim Berners-Lee and his team. The aim was to set the agenda for far-reaching transformations in the political sphere, in economies everywhere, in social interaction, and even in conceptions of our own identity<sup>18</sup>. The World Wide Web (commonly known as “the web”) is the most prominent part of the Internet that can be used to facilitate human interaction through technological networks<sup>19</sup>. The Internet has been improved significantly since it was created, as we can experience today.

The arrival of the new generation of the Internet has supported the emergence of various communication and collaboration applications such as email and social media sites. These applications help people to connect with others and communicate in a virtual space. Most activities which were previously practiced face to face have moved into online space. People no longer need to spend time in the same space to communicate, interact and collaborate. Due to its interactivity, Internet has become part of societal and organisational life.

The Internet has been used by the Muslim community for many purposes. For example, Internet can be used to facilitate social relationships through online communication such as emails and social media platforms.

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<sup>16</sup> Aleks Krotoski, “The internet’s cyber radicals: heroes of the web changing the world” in *The Guardian* (2010), 1.

<sup>17</sup> Sareh Aghaei, Mohammad Ali Nematbakhsh, and Hadi Khosravi Farsani, “Evolution of the World Wide Web: From Web 1.0 to Web 4.0”, *International Journal of Web & Semantic Technology (IJWesT)*, Volume 3, Numer 1 (2012), 1-10.

<sup>18</sup> Aleks Krotoski, “The internet’s cyber radicals...”, 1.

<sup>19</sup> Aghaei, et al., “Evolution of the World Wide Web...”, 1-10.

Social media platforms are believed to be useful to facilitate social relationships and thus increase humans' satisfaction with their lives<sup>20</sup>. McKenna, et al. argue that those who better express their true selves over the Internet were more likely than others to have formed close online relationships and moved these friendships to a face-to-face basis<sup>21</sup>.

### **Internet-based research paradigm**

Internet-based research has been occurring since the inception of ARPANET (the precursor of the current Internet) in the 1960s. More formal uses of the Internet for learning were established in the 1980s with the formation of moderated newsgroups<sup>22</sup>. In 1986, researchers first undertook an online survey, which was then followed by the first methodological discussion of online interviewing in 1994. One year later, in 1995, researchers began to conduct Internet ethnographies and the first online web experiment<sup>23</sup>.

However, it is important to differentiate between research which examines the Internet and research which uses the Internet as a tool. Online research methods are obviously useful when the phenomenon under investigation is strongly linked with the Internet. In Internet-based research, participants access a specially-designed web page containing a survey or questionnaires to complete<sup>24</sup>. Meanwhile, research which examines the Internet is understood as that which studies a variety of Internet phenomena.

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<sup>20</sup> Nicole B. Ellison, Charles Steinfield, and Cliff Lampe, "The Benefits of Facebook "Friends": Social Capital and College Students' Use of Online Social Network Sites", *Journal of Computer-Mediated Communication*, Volume 12, Number 4 (2007), 1143-1168.

<sup>21</sup> Nicole B. Ellison, Charles Steinfield, and Cliff Lampe, "The Benefits of Facebook"..., 1445.

<sup>22</sup> Jannete R. Hill., David Wiley., Laurie Miler Nelson., and Seungyeon Han, "Exploring research on internet-based learning: From infrastructure to interactions", in D. H. Jonassen (Ed.), *Handbook of Research on Educational Communications and Technology*, Mahwah, NJ: Lawrence Erlbaum Associates, 2004, 433-460.

<sup>23</sup> Tristram Hooley, Janes Wellens, & John Marriott, "What is Online Research?...", 67.

<sup>24</sup> Mary E. Duffy, "Methodological Issues in Web-Based Research", *Journal of Nursing Scholarship*, Volume 34, Number 1 (2002), 83-88.

However, while online technology use has been rampant within the Muslim community, few Muslim scholars undertake their research using online tools. The technology for online research is young and evolving. Until recently, creating and conducting online research was considered a time-consuming task requiring familiarity with web authoring programs, HTML code and scripting programs. Since then, thousands of groups and organisations have moved online, many of them aggressively promoting their presence through the use of search engines, email lists and banner advertisements. These organisations not only offer information to consumers, they also present opportunities for researchers to access a variety of populations who are affiliated with these groups<sup>25</sup>.

According to Wright, benefits of online research include access to unique populations, time saving and cost reduction<sup>26</sup>. A researcher also has the opportunity to contact and invite respondents in multiple ways, save responses to partially completed surveys, and send out periodic reminders to complete the survey<sup>27</sup>. Some scholars argue that online research could limit researchers' ability to glean information from verbal and oral phenomena such as gestures and auditory data. However, there is ample evidence to suggest that online users compensate textually for missing auditory and gestural cues, and that online phenomena can be richly expressive<sup>28</sup>. Herring adds that as people practice "doing things"

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<sup>25</sup> Kevin B. Wright, "Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services", *Journal of Computer-Mediated Communication*, Volume 10, Number 3 (2005), 100-110.

<sup>26</sup> Kevin B. Wright, "Researching Internet-Based Populations"..., 100.

<sup>27</sup> Dorine Andrews, Blair Nonnecke, & Jennifer Preece, "Conducting Research on the Internet: Online Survey Design, Development and Implementation Guidelines", *International Journal of Human-Computer Interaction*, Volume 16, Number 2 (2003), 185-210.

<sup>28</sup> Susan C. Herring, "Computer-Mediated Discourse", in *Handbook of Discourse Analysis*, Deborah Tannen, Deborah Schiffrin and Heidi Hamilton (eds.), London: Cambridge University Press 2004, 338.

online, and that “doing things’ becomes online discourse and behaviour, in which researchers are required to study this behaviour with a variety of methods such as surveys, interviews, ethnographic observation, or other methods through quantitative or qualitative analysis<sup>29</sup>.

Research in online space can be carried out qualitatively, such as through observation of text discourse phenomena, or quantitatively, such as by coding and counting phenomena and summarising the relative frequencies produced. Online spaces allow researchers to understand human discourse behaviour, which includes a range of topics as outlined in Table 1.

Table 1. Online discourse behaviour that can be studied

Structure	Jargon, references to groups, ingroup/outgroup language
Meaning	Exchange of knowledge, negotiation of meaning (speech acts)
Interaction	Reciprocity, extended (in-depth) threads, core participants
Social Behaviour	Solidarity, conflict management, norms of appropriateness
Participation	Frequent, regular, self-sustaining activity over time

Adopted from Herring<sup>30</sup>

## Research method

This study was carried out through an extensive review of seminal journals in Islamic studies using Internet-based research, information technology, and research method literature. The author also used other online data such as web-based page analysis<sup>31</sup> to identify the current phenomena of Internet use among the Muslim community. The analysis of websites

<sup>29</sup> Susan C. Herring, “Computer-Mediated Discourse”..., 343.

<sup>30</sup> Susan C. Herring, “Computer-Mediated Discourse”..., 361.

<sup>31</sup> Darcy Haag Granello and Joe E. Wheaton, “Online Data Collection: Strategies for Research”, *Journal of Counseling & Development*, Volume 82, Number 4 (2004), 387-393.

mainly focused on current online technology usage such as in education, *dakwah* and other social aspects.

Meanwhile, the analysis of Islamic studies using Internet-based research literature focuses on how the Internet was used in various Islamic studies (qualitative and quantitative). For example, how content analysis (such as of texts, photos, discussions and postings) and observation (of users) were practiced in Islamic Internet-based research. Some advantages of using the Internet as a research setting for Islamic studies were also extracted from the literature.

The data was, then, analysed using a thematic approach<sup>32</sup>. Content analysis is a systematic technique for coding symbolic content (text, images, etc.) found in communication, especially their structural features (e.g. message length, distribution of certain text or image components) and semantic themes<sup>33</sup>. The results were presented based on the themes that emerged and the different ways the Internet is used in various Islamic studies by Muslim scholars and organizations.

### **Internet adoption and use by Muslim**

According to Internet World Statistics, about 3.36 billion (46 percent) of the world population use Internet today, 1.6 billion of whom live on the continent of Asia<sup>34</sup>. This number is increasing significantly every year due to improvements in technology infrastructure, regulation, and government policies. The Western population has adopted and incorporated the Internet into every aspect of life earlier than the Asian and African populations;

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<sup>32</sup>Jennifer Attride-Stirling, "Thematic Networks: an Analytic Tool for Qualitative Research", *Qualitative Research*, Volume 1, Number 3 (2001), 385-405.

<sup>33</sup> Susan C. Herring, "Computer-Mediated Discourse...", 338.

<sup>34</sup> Internet World Stats. "Internet Usage Statistics: The Internet Big Picture World Internet Users and 2015 Population Stats." Retrieved 20 Januari 2016, from Internet World Stats: <http://www.internetworldstats.com/stats.htm> (2015a).

however, Asian countries are experiencing considerably higher Internet adoption and use in the last few years due to economic development. Most muslim population live in Asia continent countries, such as Indonesia, Pakistan, India, and these countries are high internet adoption and use.

For example, Indonesia is the eighth largest Internet user in the world<sup>35</sup>. The number of citizens who have access to the Internet has increased significantly from year to year. According to Asia World Stats, the number of Internet subscribers in Indonesia sits at around 78 million, or about 30.5% of the Indonesian population. As around 85 per cent of the Indonesian population are Muslim, this means that about 62.5 million Indonesian Internet users are Muslim. This phenomenon provides a great opportunity for all Muslim scholars to investigate Muslim Internet adopters and users for research purposes.

The high number of Muslim Internet adopters impacts the increase of Internet use in Muslim daily life, such as in education, politics, economic, social and religious contexts, etc. In the education context, for example, a recent study conducted by Barton, et al. found that at least 39 *pesantren* had official websites on the Internet, with another 7 websites not linked to any *pesantren*. These *pesantren* were located across 7 different provinces in Indonesia, as follows: East Java (16 *pesantren*, or 41.03%), West Java (9 *pesantren*, 23.08%), Central Java (5 *pesantren*, 12.82%), DKI Jakarta (4 *pesantren*, 10.25%), DI Yogyakarta (3 *pesantren*, 7.69%), Riau (2 *pesantren*, 5.13%), and Aceh (1 *pesantren*, 2.56%)<sup>36</sup>.

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<sup>35</sup> Internet World Stats. "Top 20 Countries with the Highest Numbers of Internet Users". Retrieved 27 February 2016, from The Internet Coaching Library: <http://www.internetworldstats.com/top20.htm> (20015c).

<sup>36</sup> Barton, Greg, Muhammad Iqbal, and Siew Mee Barton. 2010. "Islamic education in Indonesia and the potential for social transformation through engagement in online communities." Presented at the Global Learn 2010, Penang, Malaysia: 3766-3776

**Internet-based research for Islamic research settings**

Even though Internet-based research in the Islamic context is new and very limited, some notable examples can be found. This research, which has been carried out in various fields of Islamic studies, presents very good output and excellent academic insight which clearly contributes to Muslim life and the improvement of knowledge. Some of those studies are presented in the following Table 2.

Table 2. Example of Internet-Based Research in the Islamic Context

Technology Used	What Did They Study?	Context of Studies	Practical and Theoretical Benefits	Researchers
Websites	The research focused on MUI and NU websites in disseminating their <i>fatwa</i> to the Indonesian population. Another research focused on the construction of progressive <i>Salafism</i> in online <i>fatwa</i> .	MUI and NU websites disseminating their <i>fatwa</i> throughout Indonesia, and a website established by Yūsuf al-Qarāḏāwī and his colleagues within the European Council	<ul style="list-style-type: none"> <li>- Improve practical and theoretical knowledge on <i>fatwa</i> dissemination mechanism in online space</li> <li>- Provide knowledge on the language used by the site, which tends to emphasise not prohibition and the labelling of “heretics”, but solutions to the problems people encounter</li> </ul>	Hosen <sup>37</sup> , Rusli <sup>38</sup>
Online zakat website	The reseach discusses Online zakat management within Islamic organisations and employces’ perception of online zakat.	<ul style="list-style-type: none"> <li>- PKPU online zakat management</li> <li>- Muslim employees, perception and acceptance of online zakat</li> </ul>	<ul style="list-style-type: none"> <li>- Increase zakat awareness payment</li> <li>- Improve zakat payment mechanism via the internet</li> <li>- Effective and efficient zakat distribution and recipient data management</li> <li>- Mass-scale zakat collection and distribution</li> </ul>	Halim <sup>39</sup> Novitasari <sup>40</sup>
Social media sites (Blogs,	Islamic communication, particularly the use of social media (e.g:	Social media sites used for dakwah in Indonesia and the use	<ul style="list-style-type: none"> <li>- Provide knowledge on the social media factors that affect publicising Islamic</li> </ul>	Nurdin & Rusli <sup>41</sup> , Omar et al. <sup>42</sup>

<sup>37</sup> Nadirsyah Hosen, “Online Fatwa in Indonesia: From Fatwa Shopping to Googling a Kiai”, in G. Fealy & S. White (Eds.), *Expressing Islam: Religious Life and Politics in Indonesia*, Wollongong: University of Wollongong, 2008, 159-173.

<sup>38</sup>R. Rusli, “Progressive Salafism In Online Fatwa”, *Al Jam’ah*, Volume 52, Number 1 (2015), 205-229.

<sup>39</sup> Noorhayati Binti Abd Halim, *Customers’ Perception of Online Zakat Payment Between Government and Private Sectors Employees*, University Utara Malaysia, Kedah, 2011, 42.

<sup>40</sup> Novitasari, “Manajemen Pos Keadilan Peduli Ummat (PKPU) Dalam Pengelolaan Zakat Online”, Unpublished Thesis, UIN Syarif Hidayatullah, Jakarta, 2010.

<sup>41</sup> Nurdin Nurdin dan Rusli, “Spiritualising New Media...”, 1-21.

<sup>42</sup> Faradillah Iqmar Omar., Nor Azili Hassan, dan Iza Sharina Sallehuddin, “Role of Social Media in Disseminating Dakwah” Paper presented at the Islamic perspectives relating to business, arts, culture and communication, Singapore, 2015: 43-55.

Facebook)	Facebook, Blogs, Twitter, etc)	of blogs to spread religious beliefs among Muslim youth in Malaysia.	information - Provide practical knowledge on the effectiveness of the messages, the role of the <i>da'ie</i> , the medium used, and the right approach in online dakwah - Provide knowledge on the use of blogs to spread Islamic beliefs to the Muslim Youth generation	
Islamic E-Commerce sites	- Muslim acceptance of online transactions and payment - Consumer perception of online Islamic banking services	- Online Muslim e-commerce users' trust in Malaysia and China - Online Islamic banking consumers in Pakistan	- Improve e-commerce acceptances by Muslim - Improve online Islamic bank users and services - Help government to improve Muslim trust in e-trading and retailers	Azam et al., <sup>43</sup> Butt & Arab <sup>44</sup> , Zaimul et al. <sup>45</sup>
Online forums and social media websites	The researchers collected and coded data from more than 40,000 entries on Arabic and English language websites, social media posts by Saudi clerics and social media users' commentary about the clerics.	- Saudi Arabian clerics' opinions and thoughts on social media sites	- Provide knowledge of how clerics use technology to spread messages - Enhance understanding of how Saudi Arabian clerics communicate with the Saudi public and the Muslim world - Revealing the difference between formal	Schanzer & Miller <sup>46</sup>
Online radicalism web sites	The research discusses online radical propaganda and social media sites in Iraq, Syria and countries across the globe	- Use of internet by ISIS in Iraq and Syria - Radical and terrorist social media sites	- Understanding and countering online Islamic propaganda - Provide knowledge to government and security authorities to combat online radicalism and terrorism	Liang <sup>47</sup> , Weimann <sup>48</sup> , Weimann <sup>49</sup>
Facebook site	The research discusses Islamic politics on Facebook during a political campaign in Iran	- Iranian presidential candidates' campaigns on Facebook	- Improving election campaigns - Improve Muslim involvement in peace campaigns	Esfahlani & Buckland <sup>50</sup>

<sup>43</sup> Afshan Azam., Fu Qiang., Syed Ali Abbas., & Muhammad Ibrahim Abdullah, "Structural equation modeling (SEM) based trust analysis of Muslim consumers in the collective religion affiliation model in e commerce", *Journal of Islamic Marketing*, Volume 4, Number 2 (2013), 134-149.

<sup>44</sup> Muhammad Mohsin Butt, and Muhammad Aftab, "Incorporating attitude towards Halal banking in an integrated service quality, satisfaction, trust and loyalty model in online Islamic banking context", *International Journal of Bank Marketing*, Volume 31, Numer 1 (2013), 6-23.

<sup>45</sup> Norazlina Zainul., Fauziah Osman., dan Siti Hartini Mazlan, "E-Commerce from an Islamic perspective...", 280-293.

<sup>46</sup> Jonathan Schanzer dan Steven Miller, *Facebook Fatwa: Saudi Clerics, Wahhabi Islam, and Social Media*, Washington DC: FDD Press, 2012, 80.

<sup>47</sup> Christina Schori Liang, *Cyber Jihad: Understanding and Countering Islamic State Propaganda*, Geneva: Geneva Centre for Security Policy, 2015, 12.

<sup>48</sup> Gabriel Weimann, "Terror on Facebook, Twitter, and Youtube", *Brown Journal of World Affairs*, Volume XVI, Number II (2010), 55.

<sup>49</sup> Gabriel Weimann, "Lone Wolves in Cyberspace", *Journal of Terrorism Research*, Volume 3, Number 2 (2012), 18.

<sup>50</sup> Mohammad Sadeghi Esfahlani dan Aiden W.J Buckland, " Facebook and Iranian Electoral Politics...", 1-18.

Various Islamic Websites	- Muslim behaviour in using Islamic websites to disseminate Islamic teachings - The research studied Muslim youth communication in cyberspace	- Muslims across the globe - Singaporcan Muslims - Muslim Youth discussion on social media across the globe	- Encourage Muslims to use the Internet to spread Islamic teachings across the globe - Muslim Internet users tend to engage in online activities that are more related to personal religious concerns than activities related to traditional institutional religion - Increase Muslim Internet users' engagement in online religious activities.	Ho, Lee, & Hameed <sup>51</sup> Hosseini, Ramchahi & Yusuf <sup>52</sup>
Youth Muslim use of social media sites				
Islamic Education websites	- Pesantren going online and integrating e-Learning platforms into their core teaching programs	- Pesantren students	- Research into the social capital dimensions of trust and reciprocity among individual use of the Internet for education in Indonesian pesantren.	Barton, et al. <sup>53</sup>

In Table 2 above we can see that a number of potential Islamic issues can be studied online. Those areas of study can potentially contribute to the wellbeing of the Muslim community and the development of academic knowledge. These areas are summarized in Table 3 below.

Table 3. Potential areas to be studied online

Area to be studied online	Technology	Example of authors
Islamic communication and Dakwah	Social media platforms	Adam, et al., <sup>54</sup> Nurdin & Rusli, <sup>55</sup>
Islamic law or Online Fatwa	Web sites: organisations and government	Hosen <sup>56</sup> Rusli <sup>57</sup>

<sup>51</sup> Shirley S. Ho., Waipeng Lee, dan Shahiraa Sahul Hameed, "Muslim surfers on the internet: using the theory of planned behaviour to examine the factors influencing engagement in online religious activities", *New Media & Society*, Volume 10, Number 1 (2008), 93-113.

<sup>52</sup> Seyed Ebrahim Hosseini., Abdollatif Ahmadi Ramchahi, dan Raja Jamilah Raja Yusuf, "The Impact of Information Technology on Islamic Behaviour", *Journal of Multidisciplinary Engineering Science and Technology*, Volume 1, Number 5 (2014), 135-141.

<sup>53</sup> Barton, et al., Islamic education in Indonesia..., 3766-3776.

<sup>54</sup> Adam, Fadzli, Marhana Mohamed Anuar, and Ab. Hamid Ali, The use of blog as a medium of Islamic da'wah in Malaysia", *International Journal of Sustainable Human Development* volume 2, number 2 (2014), 74-80.

<sup>55</sup> Nurdin, N., & Rusli, "Spiritualising New Media"..., 1-21.

<sup>56</sup> Nadirsyah Hosen, "Online Fatwa in Indonesia: From Fatwa Shopping to Googling a Kiai", in *Expressing Islam: Religious Life and Politics in Indonesia*, eds. G. Fealy and S. White. Wollongong: University of Wollongong, 2008, 159-173.

<sup>57</sup> Rusli, R., *Progressive Salafisme in Online Fatwa...*, 205-229.

Area to be studied online	Technology	Example of authors
Online radicalism	Websites and social media platforms	Weimann <sup>58</sup> , Weimann <sup>59</sup>
Islamic e-commerce such as online banking services, and online zakat	Islamic banking websites	Butt & Aftab <sup>60</sup> Halim <sup>61</sup>
Islamic clerics or scholarly perspectives	Clerics and religious social media homepages	Schanzer & Miler <sup>62</sup>
Islamic Politics	Presidential campaign Facebook pages	Esfahlani & Buckland <sup>63</sup>
Islamic education	Islamic institutions' websites and e-learning or distance learning	Abulatifeh <sup>64</sup> Barton, et al., <sup>65</sup>

The use of the Internet as a research setting in the Islamic context provides some benefits for Muslim researchers. Some examples include continual access to previous and ongoing online data, the public availability of data, and the ability to obtain a wide range of textual and media contents. The benefits of Internet-based research are summarised as follows:

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<sup>58</sup> Weimann, G. *Terror on Facebook, Twitter, and Youtube...*, 55.

<sup>59</sup> Weimann, G. Lone, *Wolves in Cyberspace...*, 18.

<sup>60</sup> Butt, Muhammad Mohsin, and Muhammad Aftab, "Incorporating attitude towards Halal banking in an integrated service quality, satisfaction, trust and loyalty model in online Islamic banking context", *International Journal of Bank Marketing* volume 31, number 1 (2013), 6-23.

<sup>61</sup> Noorhayati Binti Abd Halim, "Customers' Perception of Online Zakat Payment Between Government and Private Sectors Employees", Master Degree University Utara Malaysia, 2011, 22.

<sup>62</sup> Jonathan Schanzer and Steven Miller, *Facebook Fatwa: Saudi Clerics, Wahhabi Islam, and Social Media*, Washington DC: FDD Press, 2012, 45

<sup>63</sup> Mohammad Sadeghi Esfahlani and Aiden W. J. Buckland, "Facebook and Iranian Electoral Politics: An Actor Network Perspective", in TEM 2013 : Proceedings of the Technology & Emerging Media Track - Annual Conference of the Canadian Communication Association (Victoria, June 5 - 7, 2013), eds. P. Ross and J. Shtrern. Canada: Canadian Communication Association: 2013, 67.

<sup>64</sup> Abulatifeh, *The Effect of Using Islamic Education Related Websites...*, 87-96.

<sup>65</sup> Barton, Iqbal, & Barton, *Islamic education in Indonesia...*, 3766-3776.

1. Data can be automatically generated using certain software such as ConStrat's proprietary V X, Graph API, and Technorati.com software.
2. Quick way to study more respondents or informants over the internet, and more questionnaires can also be distributed to them.
3. Wide range of textual and media content generated by users. Online data is comprised mainly of text, links, and graphics, but web pages have added sound, animations, and video; they have also incorporated user interface, user content, and user-user interactivity features.
4. Enables online coding for qualitative researchers.
5. Enables objective, systematic, and quantitative or qualitative description of the content of Internet communication.
6. A computer-assisted telephone interview (CATI) survey can be administered.
7. Enables online direct coding from informants' personal online pages.
8. Data may be gathered from different online sites, which enables researchers to compare similarities and differences on data.
9. Help researchers to contact "hard to reach" populations across difficult regions, without being limited by geography and time, through virtual survey or interviews.
10. Enable researchers to apply online experimental strategies.
11. Unlimited or continual access to information sources. For example, users can be tracked over time at multiple times or base time segmentation (weekly, monthly, daily).

### **Internet-based research for triangulation and enhancing understanding**

Certain Internet-based research can be used to validate and strengthen conventional research results. For example, a researcher may conduct conventional interviews (such as face-to-face interviews) to gather data and then validate this data in an online space. More specifically, a re-

searcher might conduct face-to-face interviews with Muslim scholars or clerics and then observe their social media sites to validate their perspectives regarding certain issues.

This strategy might strengthen or enhance the face-to-face interview results because the face-to-face interview process can sometimes put participants under pressure, whether due to time limitations or because participants are made nervous by direct contact with the researcher. This pressure could cause the participant to say something which might be inaccurate. As a result, conventional interview sessions may reflect “a very artificial situation”<sup>66</sup> because participants may try to please the researchers in order to end the interview sooner. This may also lead to a lack of descriptive validity or factual accuracy of the research topic being explored, as what participants say may not reflect reality.

As a result, the author argues that participants express their opinion freely in online space because they do not feel watched by researchers as they do in conventional research. For example, Carson found in his study that data drawn from online spaces was more representative of the real thoughts and feelings of the participants<sup>67</sup>. As the research subjects are not confronted by face-to-face interaction with researchers and time limitations (for example, in an offline context a researcher usually exerts significant power in their engagement with a participant, which can leave participants with little room to express ideas), their opinions and thoughts are expressed more freely. This allows researchers to observe the phenomena in a more natural setting, which will become a foundation to the integrity of the observation in an Islamic research process.

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<sup>66</sup> Micheal D. Myers and Micheal Newman, “The qualitative interview in IS research: Examining the craft”, *Information and Organization*, Volume 17, Number 1 (2007), 2-26.

<sup>67</sup> Dean Carson, “The ‘blogosphere’ as a market research tool for tourism destinations: A case study of Australia’s Northern Territory”, *Journal of Vacation Marketing*, Volume 14, Number 2 (2008), 111-119.

Moreover, unlike observation in traditional research settings, where researchers experience a lack of transparency in observing all ongoing phenomena, Internet-based research provides continuous access to previous and ongoing online data<sup>68</sup>. For example, researchers are able to access data from the Internet at multiple times. During a period of observation, a researcher may visit and revisit various Internet platforms to conceptualise their understanding. This provides researchers with opportunities to validate and compare what they have studied in conventional contexts and in an online context. As a result, researchers can achieve higher result validation as well as enhance their understanding from offline and online data sources.

This type of validation is often considered by researchers as triangulation. Triangulation is a strategy to “*validate data and results by combining a range of data sources, methods, or observers*”<sup>69</sup>. Many studies, e.g. Cresswell<sup>70</sup> and Angen<sup>71</sup>, argue that triangulation can be used to achieve validity through building consistency across data sources and approaches. A lack of consistency across the data and approaches is considered to weaken the evidence. However, Patton<sup>72</sup> suggests seeing this inconsistency as an opportunity to deepen understanding of a phenomenon. Therefore, the author argues that Internet-based research in the Islamic context not

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<sup>68</sup> Emmanuelle Vaast & Geoff Walsham, “Grounded theorizing for electronically mediated social contexts”, *European Journal of Information Systems*, Volume 22, Number 1 (2013), 9-25.

<sup>69</sup> John Minger, “Combining IS Research Methods: Towards a Pluralist Methodology”, *Information Systems Research*, Volume 12, Number 3 (2001), 240-259.

<sup>70</sup> John W. Cresswell, *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*, London: Sage Publications, 1998, 75.

<sup>71</sup> Maureen Jane Angen, “Evaluating Interpretive Inquiry: Reviewing the Validity Debate and Opening the Dialogue”, *Qualitative Health Research*, Volume 10, Number 3 (2000), 378-395.

<sup>72</sup> Michael Quinn Patton, *Qualitative Evaluation and Research Methods* (2nd ed.), Thousand Oaks, CA, US: Sage Publications, Inc., 1990, 536.

only enables triangulation but also deepens understanding of a topic being studied by Muslim scholars.

## **Conclusions**

As a conclusion for this paper, the author strongly recommends that Muslim researchers and education institutions extend their research setting to include online space. A number of reasons have been discussed above. However, to clearly justify the argument and answer the research questions, the author would like to address the key reasons why Muslim scholars should conduct Internet-based research: 1) A number of Muslim individuals and institutions have intensively practiced their activities in online space: for example dakwah, e-commerce, education, social and economic activities; 2) The number of Internet users in Indonesia is increasing sharply from year to year, and 85 percent of Indonesians are Muslim. This will require new approaches from Muslim researchers to investigate the phenomena in order to increase our understanding and contribution; 3) There are a number of benefits to be gained by Muslim researchers when they conduct research online, such as the variety of types and wide range of data, scalability of informants, less time and cost, as well as reduced risk when a research is conducted among religious and socially sensitive groups.

The author also recommended that all Islamic education institutions redesign and develop research approaches in their research method curriculum. There is an urgent call for Islamic education institutions to incorporate online space in their research. This may result in more validity and more trustworthy data. Finally, the online space may become a new foundation of research to improve integrity, because more data from different sources and environments are available.

This study has some limitations and issues that need to be addressed in further research. The data was generated from online and offline

literature and has yet to be tested empirically. However, this study was carried out using scientific methodology to contribute to new knowledge and perspectives in research paradigms and development. The author expects Islamic education institutions and scholars to employ Internet-based research in their Islamic research practices such as education, *dakwah*, communication, Islamic businesses, politics, etc. As a result, Islamic institutions and scholars would improve both Muslim communities' wellbeing and their research paradigms. Future research should focus on testing the ideas of this paper in empirical settings. This can be done through a qualitative single case study or survey. Empirical studies would improve this conceptual paper.

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