

# Digitalization of Knowledge in the Islamic Civilization: A History

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## Abstract

The purpose of this study is first to give a comprehensive historical analysis of the preservation and transmission of knowledge in the Islamic civilization from the time of oral transmission to the contemporary era of digitalization. Such analysis provides us with a particular insight for how Muslims should respond to the digitalization of knowledge in the contemporary era. It presents that knowledge digitalization raises a lot of concerns, such as the increasing laziness of students, and decreasing value of knowledge. Through explanatory analysis of secondary sources on the history of knowledge preservation and dissemination, it has been found that in the digitalization of knowledge is not an unprecedented change, rather, in the history of Islamic Civilization, preservation of knowledge went through four different stages: the writing other than the Quran, writing "words of men," printing press, and the contemporary era of digitalization. The results of this paper present that conservative Islamic response to the technology which changes knowledge preservation is a critical and rational response. Also, it suggests that today Muslims in general, and scholars in particular, should applaud the digitalization of Islamic knowledge, but keep in control of its possible harms.

**Keywords:** Muslim Response, Digitalization of Knowledge, History, Islamic Knowledge, Knowledge Preservation.

## Abstrak

Tujuan dari penelitian ini adalah pertama untuk memberikan analisis historis yang komprehensif tentang pelestarian dan transmisi

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pengetahuan dalam peradaban Islam dari masa transmisi lisan hingga era digitalisasi kontemporer. Kedua untuk menunjukkan bahwa analisis ini memberi kita wawasan khusus tentang bagaimana Umat Islam harus merespon digitalisasi ilmu di era kontemporer. Hal ini menunjukkan bahwa digitalisasi pengetahuan menimbulkan banyak kekhawatiran, seperti meningkatnya kemalasan siswa, dan menurunnya nilai pengetahuan. Melalui analisis eksplanasi sumber-sumber sekunder tentang sejarah pelestarian dan penyebaran ilmu, ditemukan bahwa dalam digitalisasi ilmu pengetahuan bukanlah perubahan yang belum pernah terjadi sebelumnya, melainkan dalam sejarah peradaban Islam, pelestarian ilmu pengetahuan melalui empat tahapan yang berbeda, yaitu: tulisan selain Al Quran, tulisan 'perkataan manusia', mesin cetak, dan era digitalisasi kontemporer. Dengan demikian, penelitian ini menunjukkan bahwa respon Islam konservatif terhadap teknologi yang mengubah pelestarian pengetahuan merupakan respon kritis dan rasional. Selain itu, penelitian ini juga menunjukkan bahwa umat Islam saat ini pada umumnya, dan para cendekiawan Muslim pada khususnya, harus menghargai digitalisasi pengetahuan Islam, tetapi tetap menjaga dari kemungkinan bahaya yang ditimbulkannya.

**Kata Kunci:** Respon Muslim, Digitalisasi Pengetahuan, Sejarah, Pengetahuan Islam, Pelestarian Pengetahuan.

## Introduction

In the contemporary era of digitalization, Islamic Knowledge became reachable with a tap of a finger. As long as there is access to the internet, even a layman can verify the authenticity of a particular hadith in seconds. Also, it gave us access to an online database of thousands if not millions of lectures and courses of Islamic Sciences. However, it also brought new challenges, such as negligence in book production, which causes distortions of book contents,<sup>1</sup> or the laziness of students, who no longer need to spend days in the

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<sup>1</sup> Haider Ali, "Naẓrāt Fī Manhaj Taqyyid Wa Kitaba Al-'Ilm," 2008, <https://www.alukah.net/sharia/0/2103/>.

libraries searching for particular issues, but search them from the comfort of their homes, and waste the rest of their time.<sup>2</sup>

Inevitably, it may decrease the level and worth of knowledge in the community and increase the number of ignorant people, who believe that they are well educated and learned, but whose knowledge is superficial comparing it to the knowledge of pre-digitalization era scholars. Despite it, there has been no serious research made on the effects of the digitalization on the preservation of Islamic knowledge, and the only literature which is related to these subject concentrates on particular issues of knowledge preservation instead of an all-encompassing overview which may provide a general guidance of what Muslims should do in the current situation.

Thus, in this article it is argued that although the issues of digitalization are unprecedented in the history of Islam with its effects on life in general, and on Islamic Sciences in particular, the questions and problems that it raises are not entirely new in the history of Islamic Civilization. Muslim Ummah has lived through much more controversial issues of change in knowledge preservation and dissemination, such as the prohibition of writing other than the Quran, or the introduction of printing press. The history of this progress I have called "the history of digitalization of knowledge," which started by the memorization, was continued by handwriting, book printing, and is digitalized today.

Therefore, the era of digitalization should not be seen as an unprecedented age with new and isolated challenges, but as a continuum of scientific progress that started more than a thousand years ago. Such outlook to the digitalization issue would bring an extremely important insights of how Muslims should face the challenges of knowledge transfer to the digital environment.

The main finding of this research is that radical, but progressive changes in knowledge preservation, have followed the same pattern throughout Islamic history (the change, possible

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<sup>2</sup> Tolga Gök, "The Positive and Negative Effects of Digital Technologies on Students' Learning," *International Conference on Education in Mathematics, Science & Technology (ICEMST), April 23-26, 2015 Antalya, Turkey* 2 (2015): 173-77, [www.isres.org](http://www.isres.org).

prohibition due to harms, and consequential permission when benefits exceeded the harms). Also, it will be shown that critical response of Muslims towards the change in knowledge preservation is based on rational calculations and not on blind following of tradition as is commonly thought. Considering these factors, the fact, that today's digitalization of Islamic knowledge is not as controversial, even though it is probably the most radical of all past changes, tells us that Muslim communities and scholars today should pay more attention to the possible harms of digitalized knowledge and learning environment for Islamic studies, as its consequences may be disastrous.

With this perspective in mind, researchers on the harms and benefits of technology in learning can have a new outlook on the issue and benefit from the studies of the history of Islamic knowledge. This article provides a general analysis of this history, concentrating on main controversies over the preservation of knowledge in the Islamic Civilization. It is also hoped that it will serve the purpose of reviving Islamic tradition to take history as "the best source of learning lessons,"<sup>3</sup> the tradition that Muslims are seriously neglecting today.

### Literature on the History of Knowledge Preservation

No comprehensive works on the history of knowledge preservation in the Islamic Civilization have been produced so far, and no author approached this phenomenon in all-inclusive manner. However, the particular stages of this history have received a lot of attention by the scholars of the past and present, of both Muslim and non-Muslim background. The main existing works will be discussed below in a chronological manner of the changes that shaped the history of Islamic knowledge preservation.

The first of these changes is the prohibition to write other than the Quran, particularly the hadith, the sayings of the Prophet, and subsequent permission to write it down. This issue of writing Prophet's sayings in the early era of the Prophet and his Companions was a controversial issue. Due to this reason, there are a lot of

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<sup>3</sup> Akbar Shah Najeebabadi, *The History of Islam Vol. 1*. (Darussalam, 2000), 20.

contradicting reports on the subject of permissibility to write Prophet's sayings. Thus, it was in the interest of early scholars of Islam to discuss this issue in detail and to reconcile different narrations. Consequentially, the history of this change in the knowledge preservation has reached us through classical Islamic books written by early scholars. One of the most comprehensive and famous books on this topic is Al-Khaṭīb Al-Baghdadi's (d. 463 AH) *Taqyyd al-'ilm*. This book contains a great number of narrations from the Prophet, Companions, and the Successors that deal with the issue of written and oral knowledge.

At the beginning of his book, Al-Baghdadi gives the traditions that support the prohibition to write down other than the Quran, then, he gives other narrations that explain the reasons for this prohibition (the main reason being the fear that people will abandon the Quran). Lastly, he narrates reports which support the permissibility of writing hadith or even commands it, and concludes with general narrations on the importance of writing. From the discussion given by Al-Khaṭīb Al-Baghdadi, it becomes clear that the prohibition to write other than the Quran made by the Prophet and his Companions was not unconditional. Rather, it was a wise command with a particular objective – the call to spend more time with the Quran, and to assure that the Quran would not become just like any other book and consequently lose its special status.<sup>4</sup> However, as soon as the need to write down hadith appeared and its benefits outweighed the harms, scholars became immersed with the hadith literature<sup>5</sup> as the circumstances changed and writing became a necessity instead of unnecessary and possibly harmful activity.

However, it should not be seen as a sudden an absolute change of oral to written in the knowledge preservation. Contrary to the western thought, where writing is 'the reliable' form of

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<sup>4</sup> Me'ir Kister, "Lā Taqra'ū L-Qur'āna 'alā L-Muṣḥafiyīn Wa-Lā Taḥmilū L-'ilma 'ani L-Ṣaḥāfiyyīn...: Some Notes On The Transmission Of Ḥadīth," *Jerusalem Studies in Arabic and Islam* 22 (1998): 134.

<sup>5</sup> Muhammad Abu Al-Laif, *'Ulūm Al-Ḥadīth: 'Aṣīlāhā Wa m' Aṣīrīhā* (Kuala Lumpur: Darul Syakir, 2011), 209.

communication,<sup>6</sup> the Islamic culture always considered the oral mode of transmission as superior and more reliable.<sup>7</sup> The written culture which blossomed in the second century of Islam was a supplement to the oral which is still the case for today's traditional madrasa curriculums all across Muslim world.

However, the permission to write hadith was not an all-inclusive permission, and, generally speaking, it was only two centuries later that writing other than hadith books, specifically books of Fiqh and their summaries, became an everyday matter. This stage of knowledge preservation is discussed in the relatively modern branch of Islamic literature which deals with the history of Fiqh or Islamic legislation.<sup>8</sup> These books discuss not only the early question on written hadith transmission and why it was initially prohibited, but also the later stages of Islamic studies, including the era of Companions, great Imams, *at-Taqlīd wal-Jumūd* ("the blind following and stagnation"), and modern era of juristic revival.

The main questions addressed in these books that are relevant to the history of knowledge preservation are dealing with the spread of written Fiqh literature and book summaries for easy memorization as the cause for legislative "stagnation" era.<sup>9</sup> All of these issues were part of the strategy that scholars have adopted to make Islamic knowledge more accessible, even though the great Imams have initially prohibited it,<sup>10</sup> and thus, as a change from "restrictive" to "open" writing constitutes a second checkpoint in the history of digitalization of Islamic knowledge.

The third change in the preservation of knowledge happened during the 15th century, when the printing press machine started to

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<sup>6</sup> Francis Robinson, "Technology and Religious Change: Islam and the Impact of Print," *Modern Asian Studies* 27, no. 1 (1993): 236, doi:10.1017/S0026749X00016127.

<sup>7</sup> Gregor Schoeler, "The Transmission Of The Sciences In Early Islam: Oral Or Written," in *The Oral and The Written In Early Islam* (Oxon: Routledge, 2006), 30.

<sup>8</sup> Muhammad Fuad, *Al-Madkhal Ilā Al-Fiqh Al-Islāmī* (Kuala Lumpur: IIUM Press, 2005), 49.

<sup>9</sup> *Ibid.*, 144.

<sup>10</sup> Umar Suleiman Al-Ashqar, *Tārīkh Al-Fiqh Al-Islāmī*, 3rd ed. (Amman: Dar al-Nafāis, 1990), 149.

be used in Europe. The questions concerning the early disregard to adopt the printing press for Islamic book printing are oftentimes raised in the Western discourse. There have been many explanations provided to answer this question, some of them based their explanation on the mythical, but nonetheless widespread belief, that the Ottoman Sultans have banned the printing press.<sup>11</sup>

From this perspective, it has been argued that printing press was seen as a threat to the monopoly of religious establishments such as Ulama who had enough influence on the Sultan to win their case over new invention, and make him not to adopt the new invention.<sup>12</sup> Others, however, explained that it was the Ottoman scribes who feared the loss of their important position, and thus, encouraged Sultan to ban the printing which “would be an act of impiety if the words of God should be squeezed and pressed together.”<sup>13</sup> This explanation is predominantly popular, as it served the purpose of orientalist discourse in particular and uneducated Islamophobes in general. The “fact”, that Ottoman Mufti prohibited the printing press for Muslims,<sup>14</sup> was one of the “clearest proofs” to support a narrative that Islam is inherently anti-science, backward, and evil. And thus, even in recent academic works this claim is made without any circumstantial evidence (as religious authorities or scribes in Europe very possibly could have had the same reasons to go against printing press but they didn’t).<sup>15</sup>

However, in his article “Technology and Religious Change: Islam and the Impact of Print” Francis Robinson reconsiders the general assumptions that the main reason for printing press opposition was the reluctance of Muslims to accept a new technology from “*kāfirs*,” or the oppositional voices from the guilds of scribes

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<sup>11</sup> Kathryn A. Schwartz, “Did Ottoman Sultans Ban Print?,” *Book History* 20, no. 1 (2017): 29, doi:10.1353/bh.2017.0000.

<sup>12</sup> Jared Rubin, *Rulers, Religion, and Riches: Why the West Got Rich and the Middle East Did Not* (New York: Cambridge University Press, 2017), 99.

<sup>13</sup> John Murray, *The Quarterly Review*, vol. XLI (London, 1829), 475.

<sup>14</sup> Walid Ghali Nasr, “Print or Not Print: Is That Still the Question?,” no. January (2016).

<sup>15</sup> See for example: Caroline Finkel, *Osman’s Dream: The History of the Ottoman Empire* (New York: Basic Books, 2005), 366.

who would lose their jobs.<sup>16</sup> Rather, he concludes that the reason is much deeper and related to the harms perceived by Muslims through their understanding and the epistemology of knowledge and its authority. He provides a much more tangible and substantiated explanation to the reluctance of printing press adaptation in the Muslim world.

If the printing press was seen as a threat to the reliability of knowledge by whole traditional Muslim society, then it makes a good reason for it to be adopted slowly and reluctantly. However, as soon as the need for print rose, specifically in India and Russia, where Muslims were experiencing colonial rule, and printing press became of extremely high importance in the struggle for independence, it became widespread and was adopted in a relatively short period.<sup>17</sup> Thus, similarly to the case of prohibition to write the hadith, the opposition to “progress” in knowledge preservation by printing press was a logical consideration of the harms that new technology contains.

The last radical change in the means by which Islamic knowledge is preserved is the digitalization of books, lectures, and even whole universities, who become open for fully online study programs. Because this change is contemporary, and the era of digitalization began no more than two or three decades ago, there is no historical literature on this subject. Therefore, the relevant literature for the current research in this stage is not the books of history, but the academic literature which criticises digitalization of knowledge as the past stages of change were criticised. However, as there is not much of controversy to adopt this change, very minute research was produced to investigate this issue, and only few authors are pointing to the possible harms in the digitalization of Islamic knowledge. For example, Dr. Haider Aidarous Ali in his article “*Nazrāt fī manhaj taqayyid wa kitaba al-‘ilm*” points out that the ease of printing brought by the digital technologies caused the press companies to be incautious about the mistakes that they are making in new books.<sup>18</sup> In addition to his point, Tolga Gök wrote how the

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<sup>16</sup> Robinson, “Technology”, 233.

<sup>17</sup> Ibid., 234.

<sup>18</sup> Ali, “Nazrāt.”



digital learning environment is potentially harmful to students due to the distractions that exist in smartphones and computers.<sup>19</sup>

Nevertheless, others have noted that the benefits gained through the digitalized learning environment are very high. Khawla Abū Mariām, in her paper *“Wasa’il al-tiknūlūjīa al-ḥadītha wa a’hamīatuhā liṭalīb al-‘ilm”* concluded that the solutions provided by digitalized learning are very beneficial for students of Sharia particularly, as it makes the knowledge not only easy to reach but also easy to spread.<sup>20</sup> Probably because of these clear benefits provided by the digitalization, there is not much controversy over the usage of the internet and computers to preserve and spread Islamic Knowledge. Consequentially there is no serious and extensive research made by Muslims on the possible negative impacts that such digitalization may have on the Ummah in the future.

As can be seen from the literature cited above, the changes in the preservation of Islamic knowledge have been already discussed in detail, however, all of the existing works have concentrated on particular change and lacked comprehensiveness in their overview. Thus, the main goal of this paper is to comprehensively analyse all of these changes and to show, that there is a specific pattern in the history of how the means of knowledge preservation and dissemination have changed. When this pattern becomes clear, it calls us to raise a “red flag” and reconsider the possible harms and benefits caused by the digitalization of knowledge in our age. Such reconsideration would not be an unprecedented innovation in the history of Islam, rather, as will be shown in the discussion below, it would be a continuum of the pattern that the scholars of Islam have adopted whenever there was a transformation in the preservation of knowledge caused by the change of social circumstances or new technology.

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<sup>19</sup> Gök, “The Positive and Negative Effects.”

<sup>20</sup> Khawla Muhammad Abū Mariām, *“Wasa’i’l Al-Tiknūlūjīa Al-Ḥadītha Wa A’hamīatuhā Liṭalīb Al-‘ilm,”* 2017, <https://hdl.handle.net/20.500.11888/10242>.

## Making Sense of Muslim Response to the Changes in Knowledge Preservation

It was presented in the past chapter that there are four main changes in Islamic history when the means for the preservation of knowledge have gone from one stage to another. The first stage being the permission to write down other than the Quran, the second stage being the spread of Fiqh books and their summaries (which caused the emergence of the “stagnation” era in Islamic jurisprudence), the third one being the printing press, and the fourth being the current era of knowledge digitalization. All of these stages have a linear impact on the Islamic knowledge and its spread in society (i.e. all of them brought similar challenges to the quest of knowledge preservation, and all of them, except for the digitalization and the spread of Fiqh books and their summaries, were adopted in response to the change in social environment). It will be argued below that all of these stages follow the same pattern of progress, and all of them have potential benefits and harms.

### Prohibition to Write Hadith

The first change, when writing down other than the Quran, particularly the hadith, went from prohibition to permission or even compulsion, has happened in the era of the Companions of the Prophet and their successors. It is recorded that ‘Umar ibn Al-Khattab himself has ordered the books of hadith to be burned<sup>21</sup>. However, this order was not given without a reason, and not by simply following Prophet’s command. Rather, it was based on the opinion of ‘Umar, which, interestingly, went against the reasoning of the rest of the Companions who were of positive opinion for putting hadith literature in writing.<sup>22</sup> However, ‘Umar himself was sceptical of it, and said, “Indeed I wanted to write down the Sunnah, but then I remembered people before you who wrote down books, and got busy with them, and left the Book of Allah.”<sup>23</sup> The cause for this opinion was fear that people will become busy with the books of

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<sup>21</sup> Al-Khaṭīb Al-Baghdādī, *Taqyīd Al-‘Ilm* (Cairo: Dār al-Istiḳāma, 2008), 54.

<sup>22</sup> *Ibid.*, 49.

<sup>23</sup> *Ibid.*

Sunnah and leave the Book of Allah. As Francis Robinson notes, it was exactly at this moment of the early Islam that the oral became superior over the written.<sup>24</sup>

On the other hand, because in the early time of Companions massive fabrication of hadith was not yet existing, the Sunnah could be easily preserved by memorization. At this time there was no extreme urge to write hadith down. Because of this reason 'Umar saw great harm in the compilation of written hadith but did not see much benefit if it would be written. Thus, he prohibited it. But as soon as the fabricated hadiths emerged in abundance, the early scholars of Islam understood that the harm of the prohibition started to outweigh its benefits, and began to write the hadiths down to preserve the authentic Sunnah.<sup>25</sup> Thus, a pattern can be deduced from this historical instance: the progress of knowledge preservation requires the hadith to be written down → due to the harms that it may cause this progress is prohibited → until its benefits surpass the harms.

### Sejarah Prohibition to Write *Kalam al-Rijal*

The second change, which happened in the history of Islamic knowledge preservation, was the spread of Fiqh books and their summaries. During the time of great Imams, the compilations of "*kalam al-rijal*" (literary "words of men"), which meant everything except books which contain purely hadith and other type of narrations, was prohibited by a great number of prominent Scholars.<sup>26</sup> However, as the time has passed, this prohibition was turned aside and the numerous works of Fiqh were compiled. At this stage, the most read books were no more compilations of hadith literature, rather, they were the "words of men" written by the adherents of specific schools of thought about the opinions preferred by their scholars.<sup>27</sup> As thus, this change is much similar to the writing down of hadith, as both were initially prohibited, but later became commonly practiced. However, the progress here happened not in

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<sup>24</sup> Robinson, "Technology," 234.

<sup>25</sup> Abu Al-Laif, 'Ulūm, 209

<sup>26</sup> Al-Ashqar, *Tārīkh Al-Fiqh Al-Islāmī*, 149.

<sup>27</sup> Fuad, *Al-Madkhal*, 104-110.

the form (from memorization to hand-writing), but in the contents (from books of hadith to books of Fiqh).

The second type of literature that emerged in this era was the writing of summaries of the same Fiqh books. It was written to make Islamic studies easier, however, the outcome of it was the opposite. These summaries were too hard to understand and required volumes of books containing their explanations. Consequentially, Muslims became immersed in these books instead of the Quran and Sunnah, and, as was noted by great historian Ibn Khaldun, were distracted from the most beneficial way of learning into something what looked superficially easier but was much more harder for a true understanding.<sup>28</sup> We can see now that the worries of early Imams about the writing down of “words of men” were completely valid, and their prohibition was a wise calculation instead of being simply a blind resistance to change, but due to the mistaken understanding of their successors, who did not count the possible harms of the Fiqh books, but wrote them down without a necessity, the “stagnation” era emerged.<sup>29</sup>

Thus, a very similar patter to that of prohibition to write down other than the Quran can be drawn here: change in knowledge preservation (writing down of easier to understand and memorize books) → scepticism or even prohibition due to perceived harms → and a consequential application or permission when benefits were believed to be greater than harms. As argued by Muslim scholars, this consequential permission or even disregard to the prohibition of writing down “*kalam al-rijal*” has contributed to the “stagnation” era, making its consequences extremely harmful for the Muslim community and possibly strengthening the notion for the need of scepticism towards changes in knowledge preservation. In a hypothetical situation, where the production of such books would have brought a prosperity to Muslims, it could be argued that the prohibition to write “*kalam al-rijal*” was an irrational response of religious scholars who only saw worthy to write the words of the Prophet and God. However, as seen from the analysis, their response

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<sup>28</sup> Ibn Khaldun, *Al-Muqadimah*, Vol. 2 (Damascus: Dār al-Bulkhī, 2004), 344.

<sup>29</sup> Al-Ashqar, *Tārīkh Al-Fiqh Al-Islāmī*, 149.

to this “progressive change” was based on rational calculations instead of religious biases, and history has proved them to be correct.

## Printing Press and Ottoman Response

The third change took its place in the Ottoman Empire. The Ottomans were the closest Muslim power in relationship to Europe when the printing press was invented in 1440 and its inventor, Johannes Gutenberg, became an “agreed upon” most influential person of the past millennium.<sup>30</sup> There is no big surprise why his influence is so highly estimated – the printing press had enormous impact on Europe, it increased its economy, literacy, allowed the rapid spread of revolutionizing Protestantism, and arguably, allowed Europe to become into what it is today.<sup>31</sup> However, while the new invention spread rapidly in Europe, it started to be widely accepted by Muslims only four centuries later.<sup>32</sup>

As was mentioned earlier, from first sight this prohibition may be associated with the blind following of tradition practiced by Muslims. However, the reason for this prohibition was related not to blind following of what is “old”, and not to “suspicion” of something that is coming from non-Muslims, and thus, is “impure.” Rather, it was the fears that ease of print may damage the quality and worth of books (and it did, the best example being the first printing of Quran being full of mistakes, of which some were outright blasphemy).<sup>33</sup> These same books which were cautiously written by scribes and were available only to high level scholars would become available in big numbers and with common mistakes, which would inevitably diminish the worth of Islamic knowledge which holds sacred place in the Muslim tradition.<sup>34</sup>

However, as soon as the need to print became bigger and its benefits surpassed the harms, printing became widespread in the

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<sup>30</sup> Rubin, *Rulers*, 99.

<sup>31</sup> *Ibid.*, 99-100.

<sup>32</sup> Nasr, “Print”.

<sup>33</sup> Alessandro Marzo Magno and Gregory Conti, *Bound in Venice: The Serene Republic and the Dawn of the Book* (New York: Europa Editions, 2013), 99-100.

<sup>34</sup> Miftachul Huda; et al., “Al-Zarnūjī’s Concept of Knowledge,” *SAGE Open* 6, no. 3 (2016).

Muslim world.<sup>35</sup> Thus, here again, we can see that the change in knowledge preservation is following the same pattern as before: the progress of knowledge preservation requires printing press → due to the harms that it may cause this progress is prohibited → until its benefits surpass the harms.

## Knowledge Digitalization and Contemporary Response

Today, in the era of digitalization, we are living through the fourth change in the preservation of knowledge. From what has been discussed above, it should be observed that this change is not completely unprecedented in Islamic history, rather, it was preceded by other revolutionising changes in the knowledge preservation. However, in its essence the digitalization is most radical of all, as it makes access to knowledge unprecedentedly easy, causing laziness of students and other potential harms.<sup>36</sup> This easiness has made some of the scholars raise red flags and warn of these harms that can be caused by digitalization, such as the mistakes in electronically typed books, eBooks, and distractions that are created by digital technology.<sup>37</sup> However, in general there is not much of controversy about the permissibility of the use of digital technology in Islamic sciences as there was during past changes of knowledge preservation. The lack of this controversy is caused by the overwhelming benefits of digitalization which is allowing scholars and even lay people to authenticate Islamic information in seconds. Also, it allows students to seek knowledge from the comfort of their home, making it compatible with a busy lifestyle, and permits to spread Islam all over the world without a need for an expensive

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<sup>35</sup> Robinson, "Technology", 239.

<sup>36</sup> Ismail bin Abdullah & Nur Saadah bt Hamisan Khair, "The Implication of Excessive Internet Usage on the Study of Hadith," *Journal of Islam in Asia* 10, no. 2 (2013): 128, doi:10.31436/jia.v10i2.398.

<sup>37</sup> See for example: Gök, "The Positive and Negative Effects"; Haider Ali, "Nazrāt"; Muhammad Ali Ahmad Al-'Amr, "Athr Istkhdam Al-Maktaba Ash-Shāmila Fī Khidma As-Sunna An-Nabawīa" (Alukah, 2018), [https://www.alukah.net/books/files/book\\_11372/bookfile/almaktabat\\_alshshamil a.pdf](https://www.alukah.net/books/files/book_11372/bookfile/almaktabat_alshshamil a.pdf).

travel,<sup>38</sup> not to mention, that it is extremely helpful to fight islamophobia.<sup>39</sup>

Thus, at this instance too we can see a similar pattern of change again, but this time with a slight deviation: the progress of knowledge preservation requires digitalization → because its benefits are clear → Muslims are adopting it without much controversy. This deviation may have happened due to the obvious benefits that digitalization is providing for us. However, if we are to learn from history, it should be pointed out, that the initial prohibition to write down “words of men” made by the great Imams was also ignored due to the supposed benefits of Fiqh books and their summaries.<sup>40</sup> The cost that Muslim Ummah had to pay for these assumed benefits was huge, and Muslims had to live through centuries of the “stagnation” era, which, arguably, was one of the reasons why Muslim Ummah was weakened and susceptible to colonialism.<sup>41</sup>

Similarly, the printing press also had an irreversible impact on the knowledge preservation in the Muslim society. It made the Ulama less important and weakened their authority.<sup>42</sup> Also, wide availability of books made knowledge accessible for people who are open for misguidance and allowed them to become self-educated deviants. For example, without printing press such people as Ghulam Ahmad, the establisher of heterodox Ahmadiyya sect, could not have achieved what he did except by the help of printed books.<sup>43</sup> Similarly, the western academia is also experiencing a rapid decline in the respect to scholars as people more and more assume their self-

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<sup>38</sup> Abū Marīam, “Wasa’īl”.

<sup>39</sup> Seyed Ebrahim Hosseini, Abdollatif Ahmadi Ramchahi, and Raja Jamilah Raja Yusuf, “The Impact of Information Technology on Islamic Behaviour,” *Journal of Multidisciplinary Engineering Science and Technology (JMEST)* 1, no. 5 (2014): 135–41, doi:10.1093/spp/9.5.236.

<sup>40</sup> Muhammad Sāīs, *Tārīkh Al-Fiqh Al-Islāmī* (Beirut: Dar al-Kutub al-‘ilmīa, 1996), 135.

<sup>41</sup> Ahmad Ashimi Tijani, “Islamic Civilization: Factors Behind Its Glory and Decline,” *International Journal of Business, Economics and Law* 9, no. 5 (2016): 183.

<sup>42</sup> Robinson, “Technology and Religious Change: Islam and the Impact of Print”, 246.

<sup>43</sup> *Ibid.*, 247.

educated status due to the superficial knowledge which they received through massive popular book production and access to digital media.<sup>44</sup> Moreover, the digitalized way of learning is known for bad effects on memory of students,<sup>45</sup> which can bring horrific outcome to the Islamic knowledge, which is primarily memorised and transmitted orally before being written down on the paper.

If we are to establish the values of Islamic Civilization and to follow the same pattern of criticism and wisdom as was followed by first Muslims and righteous Imams, it should be expected that the new change of digitalization should not be adopted with such ease as it is being adopted today. The checks and balances need to be established for the digitalization of Islamic knowledge and learning. It must be assured that it brings more benefits than harms and that at least majority of students would be protected from incorrect ways of knowledge attainment.

Such checks would be in accordance to the way of Companions of the Prophet and the Great Imams. Contemporary scholars should be keener in applying their methodology when dealing with the change in the means of preservation of knowledge, they should be much more sceptical about it, and avoid its blind adaptation. If the spread of books of Fiqh and their summaries became the cause of bad memory between students of knowledge and the spread of ignorance in the past,<sup>46</sup> then the outcome of digitalized learning can be much worse, if not disastrous. Thus, there should be much more research made on these questions, and the checks and balances adopted by the Muslim scholars and students during their learning process in order to minimize the harmful outcomes of the digitalized learning environment and to enhance its benefits.

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<sup>44</sup> Mary Beth Marklein, "Scholars Look for Ways to Restore Respect for Expertise," *University World News*, 2018, <https://www.universityworldnews.com/post.php?story=2018042104400654>.

<sup>45</sup> Mercer Tom, "Technology-Assisted Memory," *Applied Cyberpsychology: Practical Applications of Cyberpsychological Theory and Research*, 2016, 74–88, doi:10.1057/9781137517036.

<sup>46</sup> Ibn Khaldun, *Al-Muqadimah*, 344.



## Conclusion

The digitalization of knowledge has brought unprecedented challenges to the way Islamic knowledge is being preserved. However, such change is not unprecedented in itself, rather, it has been followed by past progressive changes when writing down other than the Quran, “words of men,” and the printing press went from prohibition to permission or from reluctance to full-scale adaptation. All of these changes can be seen as linear progress in a timeline following the same pattern when change is being prohibited due to possible harms and is consequentially permitted when benefits outweigh it (or, to put it into a formula: change in means of preservation → prohibition/reluctancy → change in social needs → permission/adaptation) and thus, can be called “the history of digitalization of knowledge”. The importance of this history, as has been shown, is that it tells us how these changes, when not in check, can bring disastrous consequences, such as the era of “stagnation” created by the spread of books of Fiqh and their summaries.

Also, it has been shown that critical response of Muslim scholars towards the changes in the means of knowledge preservation was a rational response and not simply a blind following of tradition. Since the time when Caliph ‘Umar decided to burn the books of hadith, to the time when Ottomans did not adopt the printing press, it was made out of calculations and with a reason to protect knowledge instead of hatred to it, as was presented by some orientalist.

Consequentially, the current unwillingness of Muslim scholars and students to check and balance the harms of digitalization of knowledge and learning is alarming. If we are to follow the path of past Muslims from the time of the Prophet and adopt their wisdom and insights, then we should do greater research on the history of digitalization of knowledge, which could open even deeper insights on how changes in the means of knowledge preservation have brought harms and benefits. Such research would show possible solutions to the current issue of knowledge digitalization and the way to prevent its possible harmful elements.

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