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Print or not print: is that still the question?

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Delay in adopting Printing Press in the Ottoman Empire[1]

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Abstract

This paper aims to shed light on some of the reasons that might have caused the rejection of the printing press in the first place, and subsequently have caused the delay in adopting of printing and dissemination of knowledge in the Modern Middle East. It will also investigate similar issues that affect manuscript digitisation projects in the Middle East focusing on Egypt where enormous collections of manuscripts are still not accessible to the world. A comparison of the attitudes towards the printing press in the Middle East and the attitudes towards manuscript digitisation should help in understanding these phenomena.

Historical background

More than five hundred years ago there was a revolution in information technology when Johann Gutenberg and the Chinese before him invented the moveable type printing press for the Roman alphabet. This made possible a further revolution, a revolution in the transmission of knowledge. However, print did not begin to become widely established in the Islamic world until the nineteenth century. In countries such as Egypt and Iran presses were established in the early nineteenth century but not widely used until the second half of the century.

The first book was the Aba'ah Turim in Hebrew. Nevertheless, the first time that a book in Arabic script was printed by Muslims in an Islamic land was in the year 1727, more than two centuries after the first Western book that was printed with movable type. The question remains, why the adoption of printing in Muslim world delayed so far behind the Christian world?

Was it that Muslims did not know about printing presses? The answer to this question is defiantly NO!! The ottoman granted permission for non-Muslims religious communities to use press for their purposes, but didn't allow Muslims to do the same thing or even allow a Muslim to operate presses (Wilson, p.35). As early as 1492 Jewish refugees from Spain set

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up printing presses in Istanbul, printing Bibles and secular books. Jewish and Christian communities, moreover, continued to use printing presses in various parts of the Muslim world.

It wasn't that rather more difficult problems of printing in Islamic cursive scripts, in which letters have four different forms depending on their position in the word, and vowels and inflections, are signalled by a complex system of pointing, had not been overcome. As early as the fifteenth century the Quran was printed in Arabic in Italy; in the sixteenth century Christians were using the press for Arabic printing in Syria2.

Although benefits of printing press was appreciated by some ottoman scholars and statesmen, such as Ibrahim Pecevi and the famous bibliographer Haji Khalifah, the ottoman did not use the presses until Ibrahim Mutafarriqah (d. 1745) led the cause and obtained permission from sultan Ahmet III (r.1703-1730) to start the printing house which was called Daru al-Tiba'ah. This had happened in 1727, when Sultan Ahmed III was persuaded to issue a firman, or royal decree, to Said Efendi and Ibrahim Mutaferreqa allowing them to open a printing house in istanbul using Arabic script. The authorization to print books was however limited and restricted to secular and practical books such as dictionaries, history books, astronomy, and geography. All books that dealt with Islamic theology were not allowed to be printed. (Muslims and the new media, p.31)

It is worth to mention that Muslim world was not unique in its reaction to the introduction of the printing press. Similar debates also took place within the western world, and Christian theologians raised similar objections to the printing press. These objections were centred on the errors that printed books could have, and more importantly, they also spread so-called heretical opinions that contradicted the official theology of Catholic Church. (Muslim and the new media, p.26)

The question remains, why the adoption of printing in Muslim world delayed so far behind the Christian world?

In fact, current scholarship is unsure about why Muslims rejected printing for so long- indeed, it is a problem that seems not to have been seriously studied. However, one can argue that there were many reasons of this delay or rejection; some reasons were certainly religious, but there were many other cultural and economic reasons.

Printing the Qur'an

The principle of printing the Quran in particular was one of the obstacles that faced printing in Egypt and other Muslim countries. It was not permitted to print the Holy book until the end of the 19thcentury for many reasons. The holy book was controlled by scribes with close ties to Ulama who opposed its printing for a combination of economic, religious, and cultural reasons. Also, ulama had power to the extent to influence state policy on this issue.

One issue is the purity Taharah that mean using pure materials when writing or printing the Holy book. An intentional use of impure material for writing the Qur'an would, according to

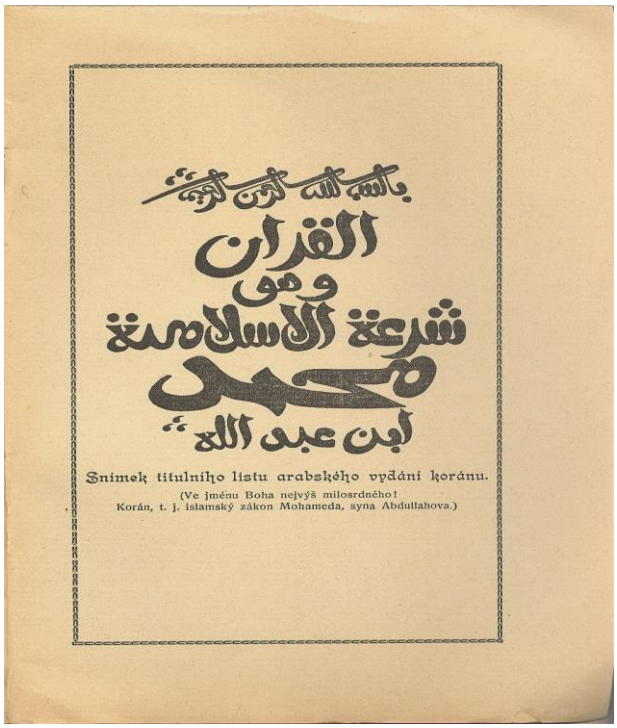
[2]Robinson, Francis. Technology and Religious Change: Islam and the Impact of Print. In: Modern Asian Studies, Vol. 27, No. 1,(Feb., 1993), p233.

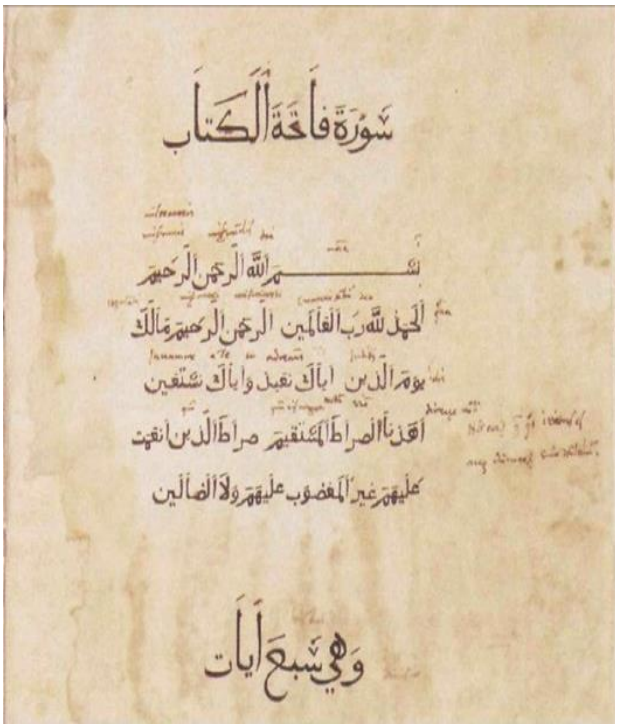
some scholars, put the perpetrator outside the borders of Islam. Muslim jurists are in agreement that it is forbidden to use impure ink or paper or any other impure medium for writing the Qur'an. As stated above, there was a suspicion of using brushes made of pig bristles in inking the platen. Impure things (najasat) as categorised by Muslim scholars do not belong to just one rank. According to them, the pig in particular belongs to the highest form of impurities because it cannot be manipulated in a certain way to get purified. However, Muslim jurists differed on whether this impurity is restricted to the flesh of the pig or exhausting all its parts. The Malikis opted for the first opinion. However, the Hanafis along with the other two Sunni schools of law opined that the impurity of the pig is not only for its flesh but goes also for all its parts including bones, skin, hair and even its sweat, saliva and sperm3.

Certainly, Ulama, that is Muslim learned men, ever wary of the possibility of religious innovation (i.e. bid'ah) would have been deeply concerned about the introduction of printing; the one printing press operated by Muslims in Istanbul in the I730s and I740s aroused so much opposition that it had to be closed down. More generally, there would have been the doubt which many pious Muslims would have felt about associating with kufr, with the products of non-Islamic civilization4

The disturbing manner in which European printers took liberties with the text of Koran, when compared to care taken in printing the Gutenburg Biblie, for instance couldn't but raise doubts among Muslims regarding the virtues of printing when they first came in contact with the new technology. Examples such as the Koran printed in 1530 by Allessandro de Paganio in Venice (figure 1) where there was no distinction between certain letters of the alphabet, such as Dhal and Dhal. Another example is the Koran printed in Hmaburg in 1694 (figure 2)5

[3]Ghaly, Mohamed. The Interplay of Technology and Sacredness in Islam: Discussions of Muslim Scholars on Printing the Qur'an. In: Studies in Ethics, Law, and Technology, vol.3, issue 2 (2009). P.12.
[4]Robinson, Ibid, p.234.
[5] Mahdi, Muhsin, from the manuscript age to the age of printed books. In: the book in Islamic world / edited by Goerge Ateya. New York: State University of New York Press, 1989. p.1





Looking at the first image which is the copy of Koran printed in (Figure 1, Venice, 1537) gives more illustration on the mistakes that we are talking about. By a thorough look at this image one could find many mistakes especially that related to the points and vocalization. In addition, there is no appearance of separators Fawasil between the verses which already exists in the oldest copy of the written Koran.

In figure 2 Hamburg copy which is deposited in the Library of Congress. The screen has many grammatical and typing mistakes, for instance, the word "Wahiya" means "which is" should be "wahuwa" because of the previous word is muscular not female القرآن وهو. Another typing and grammatical mistakes occur in the word "شرعة " where we find the article is missing as well as "Ya'" that is a part of the word to end up with the right word "الشريعة الإسلامية "

There were also many translation that included mistakes and misleading information, one of which was the German edition, printed in 1772 and dismissed by Goethe as a 'miserable production' the reader even stumbles upon a portrait of the Prophet. The caption reads: Mahumed, der falsche Prophet, thus providing a third example of Muhammad being called 'false' in a Western Qur'an6.

Printed copies of the Quran during this period met with strong opposition from Muslim legal scholars: printing anything in Arabic was prohibited in the Ottoman Empire between 1483 and 1726—initially, even on penalty of death.7 The Ottoman ban on printing in Arabic script was lifted in 1726 for non-religious texts only upon the request of Ibrahim Muteferrika, who

[6] Arjan van Dijk. Early Printed Qur'ans: The Dissemination of the Qur'an in the West, Journal of Qur'anic Studies 2005 7:2, 136-143

[7] Suraiya Faroqhi, Subjects of the Sultan: culture and daily life in the Ottoman Empire, pp, 134-136, I.B.Tauris, 2005,ISBN 1-85043-760-2, ISBN 978-1-85043-760-4;The Encyclopaedia of Islam: Fascicules 111-112 : Masrah Mawlid, Clifford Edmund Bosworth

printed his first book in 1729. Very few books, and no religious texts, were printed in the Ottoman Empire for another century8.

Whether these mistakes have been made purposely or not, it make Muslims scare from the new comer (printing) which will pollute their language as well as the mistakes in the Holy Koran that is not accepted under any circumstances. Consequently, Muslims resisted the printing in one hand, and then it took them decades to introduce printing.

The idea of tracing quranic copies that are copied by calligraphers was one of the strong supporting points that contributed to the opposition of printing. Some argued that printing Quran will make non-Muslim trace it back to the 15th century only when it was first printed. Printed books lacked a lineage that provided Islamic authenticity and guaranteed the quality of work. (Wilson, p.39)

The printing of the Quran began precisely in the context of educational expansion and increasing demand for books. In 1869 when ottoman had started new regulations to standardising curriculum for state schools, the printing press made it possible to meet this needs in various fields, but it couldn't be used for the Quran as the reproduction. (wilson, Translating the Quran, p.30)

In the early eighteen century, specifically in 1727, the state gave permission to the First Muslim-run press in the Muslim world to print books in Arabic scripts. Ottoman started to use the printing press in 1727 that was the first printing press run by Muslims. Ulama had a very essential role in this press in two ways, first is to legitimise muslim to use this technology, and second, they had a siginificant role of proofreDing and oversight. This way prevented them from opposing.

Fatwa against printing

A number of European and American scholars have pointed to the early Muslim experience with printing as yet another historical incident of conservative Islam resisting change. The Ottoman fatwas are always invoked as "hard" historical evidence, while the genre of written fatwas is not a clear matter[9].

The main source to tell us more about the arguments advanced by the 'Ulama are the early standard fiqh manuals which were authoritative for the 'Ulama of this period. Haim Gerber said in this respect, "There is no question that most legal decisions were based on the authorities of the Hanafi tradition. Jurists were following the footsteps of former ones in a sort of taqlid."10

Thus the main sources to be consulted below are the standard Hanafifiqh manuals such as al-Hidaya by al-Marghinani (d. 1197), Kanz al-Daqa'iq by Ḥafiz al-Din al-Nasafi (d. 1310), Mutlaqa al-Abhur by Ibrahim al-alabi (d. 1549), etc. Such books, alongside their commentaries, super commentaries and abridgments, were essential part of the curricula of the Ottoman madrasas (religious schools). The whole class of 'Ulama', ranging from imams

[8] Şükrü Hanioğlu, "A Brief History of the Late Ottoman Empire", Princeton University Press (2010)
[9] Ayers, Brian S. Early Muslim Printing : a study of early Muslim experiences with the printing press from 1700-1900. Athens, Georgia, University of Georgia, 2004.MA thesis.P.8.
[10] Gerber, Haim. *Islamic Law and Culture*, p. 71.

to Shaykh al-Islam, was trained in these madrasas, which were the key institutions of learning and education in the Ottoman Empire.

Certainly, Ulama, the Muslim learned men ever wary of the possibility of religious innovation or so called bid'a in the hadith traditions. They would have been deeply concerned about the introduction of printing; the one printing press operated by Muslims in Istanbul in the I730s and I740s aroused so much opposition that it had to be closed down. More generally, there would have been the doubt which many pious Muslims would have felt about associating with kufr, with the products of non-Islamic civilization[11].

This shows not only the strong position of fatwa in the Musim legal system, but also how it had affected the statesmen decisions. However, despite these numerous voices among Muslim scholars protesting against printing the Qur'an and the Islamic texts in general, no detailed fatwas or discussions are traceable which would justify this protest on religious grounds. Thus, it remains a riddle; why are there no detailed fatwas available on this issue? Although, to my mind, no definite answer can be given because of the absence of sufficient information on this point, there is still space for thinking of some possibilities[12].

In 1483 Sultan Bayezid II and successors prohibited printing in Arabic script in the Ottoman Empire from 1483 on penalty of death. Therefore, Shaykh al-Islam issued fatwa stating that moveable type printing was permissible for these non-Muslim communities, but not for Muslims of the Empire. Furthermore, scholars of Al-Azhar in Egypt issued similar fatwas declaring that printing religious books and Qur'an in particular is forbidden. These fatwas remained active till a late period of the reign of Muhammad 'Ali (1760s-1849).

Even when Mustafa Muafarrika obtained the permission to establish the printer, the Sultan's decree have excluded, although without explanation, all books related to Qur'an, Hadith, Jurisprudence and Islamic Theology. In my opinion, the decree was not enough and the permission needed to be legitimised by the authority i.e. Sheikh al Islam (Grand sheikh, or Mufti) at that time who answered the questions regarding the legal authorization of printing books by listing the great advantages of printing such as clarity and the multiplications of copies, hence, praising the printing invention. (Muslims and the new media, p.32)

Printing versus oral tradition

According to Francis Robinson[13] the problem was that printing attacked the very heart of Islamic systems for the transmission of knowledge. It attacked what was understood to make knowledge trustworthy, what gave it value, what gave it authority. The system of transmission was mainly reliable on oral; for instance, the Qurans always transmitted orally because this was how the Prophet transmitted the messages he had from God to his followers. When, a few years after the Prophet's death, these messages came to be written down, it was only as an aid to memory and oral trans-mission. And this has been the function of the written Quran ever since. The oral transmission of the Quran has been the

[11] Robinson, Ibid, p.234.

[12]Ghaly, Mohammed (2009) "The Interplay of Technology and Sacredness in Islam: Discussions of Muslim Scholars on Printing the Qur'an," *Studies in Ethics, Law, and Technology*: Vol. 3: 2. p.5.

[13]Robinson, Francis. "Technology and Religious Change: Islam and the Impact of Print". Modern Asian Studies 27.1 (1993): 229–251.

backbone of Muslim education which laid their impress on the transmission of all other knowledge.

The oral dimension of the Qur'an remains more central when discussing the issue of printing. According to the historian Francis Robinson, this Qur'anic phenomenon of orality, or specifically oral transmission, remains central in understanding why Muslims rejected printing for so long. A great number of the functions of the Qur'an as a sacred text were dependent on its oral form rather than the written one.

With this understanding, the objections which Muslims might have had to printing become a lot more clear. Printing, by multiplying texts willy-nilly, struck right at the heart of person to person transmission of knowledge; it struck right at the heart of Islamic authority. No Muslim was likely to adopt it until he saw a good in printing greater than the evil it might cause. In fact, Muslims came to adopt printing only when they felt Islam itself was at stake and print was a necessary weapon in the defence of the faith.

In general, the transmission of knowledge from the prophet, his companions, and the scholars was and is fundamental for validating and anticipating practices and traditions as Islamic. (Wilson, p.39)

These arguments are developed in relation to Islam and printing. Nevertheless, it is recognized that the widespread printing of books was also not adopted in the Hindu, Chinese and Japanese worlds until the nineteenth century. In these areas too, there were cultural and political barriers to the adoption of printing. In Hinduism, for instance, 'the oral word has remained the only fully acceptable and authoritative form for sacred texts for over two, possibly over two and one-half, millennia after the implementation of writing'14.

The reluctance to accept printing is for example illustrated in a much later discussion by the Moroccan theologian Muhammad al-Siba'i d. 1914 who wrote "printing books cause the abandonment of memorization and forgetting Islamic knowledge and diminishing a desire among students and scholars to pursue learning" (Muslim and the media, p.40)

Social reasons

Historians of printing argue that the success of typography in Europe was due to a host of social conditions which created needs that the printed book fulfilled. There were economic and political conditions, as well as an education system to support the typographic press. In Islamic lands, however, similar conditions to those in Europe were not present; and hence there was no context in which there was a perceived need for the printed book. While not inherently hostile to printing, the unique Muslim concept of scripture, the traditional Muslim education system, and the established manuscript tradition simply did not give rise to needs that could be fulfilled by typographic printing. That is, there was no glaring problem that the typographic press could solve[15].

[14] William Graham, Beyond the Written Word: Oral Aspects of Scripture in the History Religion (New York: Cambridge University Press, 1987). P.68.
[15] Ayers, Brian S. ibid, p.43-44.

Another note has to do with the copyists (nasikh, pl. nussakh or warraq, pl. warraqun) whose number in the 18th century Istanbul was ranging between 20.000 and 90.000. They expressed vehemently their protest against the printing project. Although the interests of the protestors are mainly economic, the religious dimension is closely interrelated. First of all, it is a common practice to find 'Ulama specialized in theology, Qur'anic Exegesis (Tafsir) or Prophetic Traditions (Hadith) among the copyists. Additionally, juristic regulations especially those in the Hanafi fiqh manuals, as to be noticed below, gave space for copying to be a profitable profession. That's why juristic regulations with relevance to copying or copyists will be also given attention in the discussions to follow[16].

Copying the Quran was also an excellent trade and one must be careful not to romanticise the occupation of the scribe in general. The Ulama and their students were the primary customers of manuscripts in the Ottoman Empire, and it is no surprise that they had a close relationship with the makers and scribers of the text book. (Wilson, p.41)

Perhaps without exaggerating, printing could have been perceived as an attack on the very heart of how Muslims scholars established their authority. even though this issue was much debated at the begining of the printing press in the eighteen century, it is also possible to find later examples. For instance, we mentioned that one of the reasons that printing Quran was delayed in the Middle East because of the uluma were concerned that printing many copies cause improper handling of the holy book which could easily threaten the religious authority (Larsson, Goran, Muslims and the new media, p.23)

Calligraphic traditions

By the eighteen century, the ottomans had developed a rich calligraphic traditions participating in the domain of Koranic scripts which contributed to the initial oppositions to printing of sacred text. To be a calligrapher, you had to have gone through intensive training with a master. After years of study, the master grants the disciples a licence by which they can sign their own work.
Calligraphers made a strong linkage with Quran and calligraphy. Quran frequently mentions and even invokes the tools of scribal culture; the Quran refers to ink or midad Q.18:109), parchments (qirtas Q.6:7,91) and pen (qalam, aqlam Q.31:27;Q.96:4). The oath by the pen and what they inscribe) and of course it doesn't mention the printing. (wilson, p.39). Also, a well-known tradition attributed to the prophet says "whoever writes in the name of God in a beautiful script will be in the heaven without judgment"

Scribes and their cause against printing (fear to eliminate their jobs). Some reports mentioned that a group of scribes had led demonstrations in Istanbul in 1720 against the press, but some argued that this was not the main reason for the late adoption of the press and that the main reason was that the ottoman society did not feel a need for this technology (wilson, p.38). In order for Mutafirraqah to avoid this conflict, he stated in his work The Usefulness of Printing that only books other than of Islamic subjects such as fiqh, quran, kalam, would be printed.

Digitisation of Manuscripts

[16]Ghaly, Mohammed. Ibid, p.11.

As we have seen, to print or not to print, that was the question in most of the Muslim countries during and after the Ottomans. As a consequence, printing did not begin to become produced in the Islamic world until the nineteenth century. The very same civilisation produced a substantial number of manuscripts that are now exposing to different types of destruction. The question remains, why manuscripts digitisation is so slow in the Middle East when it is compared with the increasing number of digitisation in the west.

One shocking argument came to my knowledge when I was involved in some digitisation projects in Egypt, that there is a possibility of forging any digital copy of a manuscript which might lead to fabricating part of the Muslim history or the holy book. For instance, in order to decide whether to digitize the Koranic manuscript attributed to the third caliph Uthman ibn Affan(d.34). The major problem was the unprofessional conclusion that came from a non-specialist individual who confirmed that the manuscript is one of the original copies that the caliph had sent to different countries without any minor consultation with the specialists. Regardless of the debate about the accuracy of the attribution of the manuscript, this has affected the entire process of the digitization of that particular manuscript, as many scholars started to argue whether it is important to digitize it or not given the date and the size of the manuscripts. The counter argument was that because of its date and size it is vastly important to preserve it on digital format. The dispute was not only about whether to permit Digitization to be done, but also about the access to the digitized copy.

One can argue that there is a lack of attention towards the digitization of these manuscripts. Obviously, on the research level there are a few studies that focused on the impact of digitization as well as the planning for such projects. Most of these studies are from academic point of view and do not touch on the practical side of the issue. Researchers and practitioners should be encouraged to establish more research studies on digitization in order to enhance awareness of its importance, as well as to demonstrate the different techniques and strategies of digitization and how to implement a successful digitization project. Also, on the practical level, only a few projects have been implemented in the Egyptian libraries, and these faced many challenges and obstacles which had direct negative effects on these projects.

Generally speaking, there are many administrative and technical constraints that affect the digitization projects undertaken in Egypt, lack of finance, planning, infrastructure, and training. I will now focus on the constraints that occur because of the attitudinal aspects. Nevertheless, this particular issue can fall under the administrative and technical challenges, too. It is administrative because it comes directly from the curators or administrators and technical because it indicates a lack of technical awareness and experience.

Therefore, attitudinal constraints can take many shapes, such as resistance to change, blocking of information, obstacles to implementing workflows, workflows, both by those in charge of the decision-making process and those carrying out the project. All of the above have a direct impact on the manuscript digitization projects in Egypt to the extent of prohibiting some manuscripts from being digitized, or taking so long to secure the digitized manuscript by adding watermarks or processing them before posting them to the internet.

The first general attitudinal constraint is the resistance towards digitization that comes from some curators and managers who are in charge of some manuscript library or collections. In some cases, their argument is that technology might harm the original manuscript because of the way people handle it, or because of the machines itself. This is true to a certain extent, because of the lack of manuscript handling skills in most of the Egyptian libraries; also, the technologies that had been used in the early digitization projects were outdated. I am talking here about the first projects in 1992 when they used to use scanners not cameras.

One serious perception issue is related to the way that some scholars or manuscript specialists judge some subjects such as magic or occult science. Depending on this judgment, the Digitization of that very type of manuscript can be unauthorized. The reason for this authorization comes from their personal point of view or their misperception of these subjects as being – they argue - useless and even potentially harmful to people. The counter-argument is essentially that the Digitization is an important process in itself, and access can be controlled afterwards relying on a general access policy for the entire collection.

The manuscripts on magic in the Awkaf Library are held in a restricted collection, stored in red boxes, and have not gone through the Digitization project. This decision was pushed through by a specialist in editing Islamic manuscripts who made his own judgment and convinced the decision makers that they are harmful. Because of this prejudgment, a huge number of manuscripts were not digitized, such as Buni's famous work Shams al-ma'arif al-kubra, and some of ibn Arabi's works, which are manuscripts that discuss mystical or sufi traditions and has nothing to do with magic. At the end of the day, it was an individual's perception that affected the whole digitization decision.

One final perception constraints is the curators understanding of the copyright issue; they think that Digitization is a violation of the manuscripts copyright ignoring the fact that the majority of those manuscripts are in public domain. This aspect affects not only the digitization projects, but also affects the access of digitized copies afterwards. When this happened with the Awkaf project, it has been decided to create a digital watermark to be added to the images. This process exacerbated the workflow time in order to design a suitable watermark for the library, and to process the digital copies by Photoshop software. Moreover, a decision was made to incorporate the digital copies of the manuscripts in tailored software that was originally designed for architectural display of the Egyptian mosques. In other words, every single digitized manuscript must be embedded in this software in order to be accessed or browsed, and any problem that happens with the software will make accessing the images very difficult.