Alshanqiti, Ahmed Mohammed S. (2021) *Exploring the concept of a digital Waqf library.* PhD thesis.

Exploring the Concept of a Digital Waqf Library

Ahmed Mohammed S Alshanqiti

BA in Library and Information Science, King Abdulaziz University
Master of Library and Information Science, University of Pittsburgh

Submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy in Information Studies

School of Humanities
College of Arts
University of Glasgow

November 2021

Abstract

This thesis aims to explore the concept of a digital Waqf library. Waqf is an Islamic concept; it has existed since the days of the Prophet Mohammed (peace be upon him). A Waqf can be defined as a kind of pious endowment with special requirements and conditions. It aims to continuously benefit the targeted beneficiaries as well as seek a reward and forgiveness from God. The word Waqf in the Arabic language means stop. Therefore, the concept of Waqf aims to stop an asset from being sold, given away, disposed of or even inherited, and extracts the benefit from it to certain individuals, groups or organisations. A Waqf can be real estate, a library, and so on. Waqf has always been about physical properties, and its digital existence in general can be considered as a new emerging field with limited literature. Given the ancient origins of Waqf, there are always discussions about the application of its rules and guidelines for new types of cultural objects; this study will mainly investigate the implications of applying existing frameworks for digital libraries to traditional Waqf libraries to ultimately understand how and whether a digital library can be registered as a Waqf. Existing studies regarding Waqf libraries, albeit limited, have focused on the traditional physical version of a Waqf library. A mixed-methods approach was used, combining desk research, field research, and interviews to investigate the emerging phenomena of a digital Waqf library. Two sets of semi-structured interviews were used to understand this phenomenon: one aimed at the caretakers of the current existing Waqf libraries in Mecca and Medina, and the other aimed at Islamic scholars to understand their perspective regarding registering a digital library as a Waqf. This study shows that digital practices have already been employed within some Waqf libraries in Mecca and Medina, albeit without the existence of a formal regulations regarding the operation and management of a digital Waqf library. As a result, libraries are faced with significant new challenges as they apply digital practices within their Waqf-protected collections. This thesis considerably contributes to the knowledge by being the first to intensively explore in depth the emerging concept of a digital Waqf library, including presenting different methods by which digital Waqf libraries can be established. Moreover, the thesis identifies, addresses and draws attention to important issues and obstacles that can affect the creation of a digital Waqf library, such as the absence of Waqf-specific regulations that dictate how a Waqf's protection of libraries' intellectual property should be applied.

Contents

List of Tables

List of Figures

Acknowledgements

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وصلى الله وسلم على سيدنا محمد

Declaration

"I declare that, except where explicit reference is made to the contribution of others, this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution".

Ahmed Mohammed S Alshanqiti

Transliterated Words

Transliterated word/ Original Arabic term	Translation
Awqāf/ أوقاف	Plural of the word Waqf
Ajor / أجر	Rewards from Allah (God)
Fatwa / فتوى	A ruling of Islamic law given by a recognised Islamic Scholar
Fiqh / فقه	Islamic jurisprudence
Istekhdam / استخدام	The use of something
Istibdal / استبدال	The exchange of something
Madhhab / مذهب	An Islamic school of thought
Manfa / منفعة	Benefit
Muftī / مفتي	An Islamic scholar who is qualified to issue a nonbinding opinion (fatwa) on a point of Islamic law
Mustafti / مستفتي	The person who asks the Muftī about a personal, or a public, Islamic issue or inquiry
Nazir Al Waqf/ناظر الوقف	The person who is legally assigned to taker care and manage the Waqf
Waqf / وقف	Islamic pious endowment
Waqif / واقف	The person who donates the Waqf

Abbreviations

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
CC	Creative Commons
DL	Digital libraries
DLMS	Digital Library Management System
DLP	Digital Library Program
DLS	Digital Library System
GAIAE	General Authority of Islamic Affairs and Endowments
IP	Intellectual property
KFUPM	King Fahd University of Petroleum and Minerals
EEBO	Early English Books Online
IIPA	International Intellectual Property Alliance
KACST	King Abdul-Aziz City for Science and Technology
MIT	Massachusetts Institute of Technology
OCR	Optical Character Recognition
SALs	Saudi academic libraries
WIPO	World Intellectual Property Organization
WTO	World Trade Organisation
KAPF	Kuwait Awqaf Public Foundation
IFLA	The International Federation of Library Associations and Institutions

Chapter 1: Introduction

This thesis aims to investigate the concept of a digital Waqf library. It is looking to explore what the possible rules and laws are that need to be followed to register a digital library as a Waqf. Moreover, identify and address any possible issues and conflicts that may arise from such attempts to register a digital library as a Waqf.

Waqf is an Islamic concept that has existed since the days of the Prophet Mohammed (peace be upon him). Waqf is defined as a kind of pious endowment with special requirements and conditions, which aims to continuously benefit communities and seek a reward and forgiveness from God for the donation of the Waqf. A Waqf library is a public service in which the owner maintains the collection for the benefit of certain people or organisations. Chowdhury, Ghazali and Ibrahim (2011) explained that "the word Waqf is derived from the Arabic root verb *w\Waqafa*, which means 'causing a thing to stop and stand still.' It also takes the meanings of 'detention,' 'holding' or keeping" (p. 12155). Therefore, Waqf aims to stop an asset from being sold, given away, or even inherited, extracting the benefits from it for certain individuals, groups, or organisations (Nasution, 2002). Waqf can come in different forms, such as real estate, libraries, schools, wells, etc.

Among the benefits that Waqf can serve is education. Therefore, libraries benefited from the ability to follow Waqf rules because they received a large number of donations and as such, a great number of Waqf libraries have existed over the centuries. Nevertheless, Stibbard, Russell and Bromley (2012) stated that:

> Although religious aims were the major focus of *awqāf*, education in general
> was the second recipient of Waqf revenues. Indeed, there are examples of this
> from the late 12th century onwards. This Waqf financing of education covered
> libraries, books, salaries of teachers and other staff, and stipends for students.
> (p. 794).

Waqf libraries have not received as much attention as other libraries, even in the Islamic world. The majority of users in the Islamic world do not have enough knowledge about Waqf in general, let alone Waqf libraries (Kbha, 1999). Waqf libraries have been important contributors to shaping Islamic civilization due to their valuable collections that include books, manuscripts, artefacts and audio recordings. According to Hennigan (1999), "it is not an exaggeration to claim that the Waqf, or a pious endowment created in perpetuity, has provided the foundation for much of what is considered 'Islamic civilization'" (p. 1).

Waqf libraries spread through the Islamic world into cities such as Damascus and Cairo; some still exist while others have been destroyed due to wars, such as the conflict in Kosovo, and new ones are still being established. As Riedlmayer (2007) explained:

> Among them was the Islamic endowment (*Waqf*) library of Hadim Suleiman Aga in the western Kosovo town of Gjakova/Djakovica, founded in 1595 and burned by Serb troops at the end of March 1999 with the complete loss of its collection of 200 ancient manuscripts and 1,300 old, printed books. (p. 124).

While some limited studies (mainly in the Arabic language) have addressed Waqf libraries, these studies primarily provided historical examples and focused on the traditional physical version of a Waqf library, such as Hmadi (1996), Saati (1996), Moftie (2003), Qattan (2012), Iesei (2018) and Alshangity (2015). However, a thorough search of the relevant literature shows a lack of studies on the concept of a digital Waqf libraries.

As of today, technology has become an essential part of our lives. We use technology for education, public services, communication, etc. People are shifting to use digital means to acquire knowledge and education, therefore the existence of a digital Waqf library will give a contemporary option for Waqf to continue its tasks and goals to benefit people and communities with one of the important life trends nowadays, which is technology. It will allow people and communities to access knowledge and education easily and more conveniently. Therefore, a digital Waqf library would continue the important rule that physical Waqf libraries have been doing through hundreds of years.

It is important to understand that the concept of the digital Waqf library consists of two components: the Waqf and the digital library. Each component has its own different group of experts. The Waqf component is a massive Islamic concept and is represented by Islamic scholars. The digital library's component is represented by librarians. Neither of these two groups can function alone without sharing information with the other group. A digital Waqf library could be managed by librarians, but its rules and guidelines are derived from the Islamic religion, which is represented by the Islamic scholars. Therefore, the researcher had to work as a liaison between these two groups to be able to answer the research questions, using as a base his background in librarianship, and the knowledge he gained from intensive reading and analysing on the concept of Waqf in general, Waqf libraries, and completing an important course of the *fiqh (*Islamic jurisprudence) of Waqf[1] (See Appendix P for the certificate).

As a norm, new life trends are brought to the attention of Islamic scholars to determine whether any obstacles may prevent those trends from being registered as a Waqf. For example, Alahmed (2018) investigated whether stocks of joint-stock companies can be registered as a Waqf. Therefore, as we live in the digital age, this thesis explores the concept of a digital Waqf library by identifying and addressing any issues and obstacles that may exist in registering a digital library as a Waqf (whether the content is digitised or born-digital). This thesis may then encourage and pave the way for people to establish digital Waqf libraries to benefit the community, as the physical Waqf libraries already do.

This thesis will focus on the Saudi Arabian context while investigating the concept of a digital Waqf library. Since its foundation, given the historical and religious importance of Waqf

---

[1] The researcher's background is mainly in librarianship. However, the researcher has gained knowledge about Waqf through reviewing a wide range of Waqf books. The researcher has also completed and passed an important and useful course about the *Fiqh* of Waqf, which fostered a much deeper understanding of the concept and law of Waqf. The course was provided by Shaikh Dr Amir Bahjat (a recognized Islamic scholar who is a faculty member at the Islamic Department in Taibah University in the holy city of Medina). As a result, Shaikh Dr Bahjat has offered a testimony that the researcher is authorized to discuss and pass on knowledge about Waqf in general (see Appendix P). Nonetheless, the researcher is neither authorised nor able to give *fatwa* regarding the new and complicated issues arising in Waqf that have not yet been reviewed by Islamic scholars. Again, the researcher is authorised only to deliver, explain, and pass on information about the concept of Waqf in general (as stated in the given testimony from Shaikh Dr Bahjat). Therefore, it is mandatory to conduct interviews with Islamic scholars to gain answers in novel cases.

libraries, Saudi Arabia has been taking care of the physical Waqf libraries in the country and providing them with funding and personnel assistance as needed. At present, Saudi Arabia supports and advocates the transition of libraries to the digital age by supporting digitising current print collections and encouraging the provision of digital services. In addition, the establishment of born-digital libraries is being advocated, which resulted in the founding of the Saudi Digital Library, which is a national online digital library resource in Saudi Arabi. These advocacy efforts have included Waqf libraries along with other types of common libraires.

In December 2019, the King AbdulAziz Foundation for Research and Archives (government body) signed an agreement with the Al-Busati family Waqf library in Medina to provide conservation and treatment services for their unique old collection of manuscripts (King AbdulAziz Foundation for Research and Archives, 2019). Moreover, the launch of the King Abdulaziz complex for Waqf libraries in Medina, which has 34 Waqf libraries within its premises, by a royal order from King Salman (No. 389) on 20 June 2016 was an important step towards supporting Waqf libraries in maintaining their unique collections or supporting their transition to the digital world by providing the appropriate support and funds for the transformation.

In May 2021, the Saudi Libraries Commission, which is a government body established in February 2020, launched its future strategic plans to develop the library sectors in Saudi Arabia, and one of their strategic plans is to support the digital transformation of libraries in Saudi Arabia (Ministry of Culture, 2021). Moreover, an article published in 2021 by Alyaum newspaper entitled 'The Library of Alharam Al Makkey: A Cultural Hub that Aims to Digitize' mentioned that the Waqf library of the holy mosque in Mecca is in the process of transitioning to digitise their contents (The Library of Alharam Al Makkey, 2021); this Waqf library is also funded by the government.

Therefore, a support, a movement and a desire within the Waqf libraries to transition to the digital atmosphere clearly exist. However, several fundamental questions remain largely unanswered: is there such a thing as a digital Waqf library? What does it mean? How does it work? Is it still a Waqf library if the library exists in the digital atmosphere (since Waqf has always been about physical properties)? Are there any issues, implications and complications

that must be identified and addressed to improve the understanding of the concept of the digital Waqf library – whether a digitised Waqf library or a born-digital library that aims to be recognised as a Waqf?

This thesis considerably contributes to the knowledge by being the first to intensively explore in depth the emerging concept of a digital Waqf library, including presenting different methods by which digital Waqf libraries can be established. Moreover, the thesis identifies, addresses and draws attention to important issues and obstacles that can affect the creation of a digital Waqf library, such as the absence of Waqf-specific regulations that dictate how a Waqf's protection of libraries' intellectual property should be applied. Even though the focus of this thesis is within the Saudi Arabian context, its results can be adapted and adjusted to the appropriate needs of other countries that show interest in the subject. It also aims to lay the foundation for the emergence of new studies that will investigate the concept of a digital Waqf library, as it is a massive field and can be studied from different in-depth aspects, such as definition, foundation, regulations, usage, management and maintenance, preservation, users/beneficiaries and so on.

Research questions

Waqf libraries, like other types of libraries, have the ability and opportunity to benefit from using any type of technology for development, including the digitisation of their existing collections. As mentioned earlier, the literature about Waqf libraries mainly discusses the traditional version of these libraries and not the digital version. Therefore, one of the main and important aims of this thesis is to explore whether the concept of a digital Waqf library can be introduced. Traditional Waqf libraries are already following strict requirements to be recognised as Waqf libraries, however, should these requirements also apply to Waqf-protected items that have been digitised? Is it possible for a born-digital library (a library that does not exist physically) to qualify and be registered as a Waqf?

Therefore, the **main** question of the thesis is:

What are the implications of applying existing frameworks for digital libraries to traditional Waqf libraries?

The main question of the thesis is followed by sub-questions, which allow and support the exploration of the concept of a digital Waqf library. Those sub-questions are:

Sub-question 1: What are the implications of digitising for existing Waqf collections?

Sub-question 2: Can a new born-digital library be registered as a Waqf?

Since it is mentioned that studies regarding the concept of digital Waqf in general are limited, and for digital Waqf library in specific are lacking, the researcher must examine live examples of the use of technology within the context of Waqf libraries. The aim is to understand how the use of technology within a Waqf library may be affected by Waqf laws and other non-Waqf laws and policies that may be applied within the library, identify how libraries deal with such issues and investigate the possible issues and conflicts that may arise from such use of technology. Ultimately, such an examination allows the researcher to present the outcomes to the Islamic scholars to acquire their point of view on those issues. This strategy is a vital step in the journey of exploring the concept of a digital Waqf library.

Waqf libraries in Mecca and Medina were chosen to examine how digital practices are being employed in those libraries, and what kind of issues and conflicts might arise from such employment, to help explore the concept of a digital Waqf library. Waqf libraries in the two holy cities, Mecca and Medina, were chosen because they were fortunate in terms of possessing many Waqf libraries, based on their role as the two main hubs for all Muslims around the world; from the very beginning of Islam to the present day, they have continued to receive books and manuscripts from all pilgrims who visit (see Figure 1). This laid the groundwork for the establishment of a great many Waqf libraries with unique and valuable collections in both cities, as Tashkandy (1974) explained:

> Due to the fact that Mecca and Medina are the holiest cities in which pilgrims
> from all over the world meet annually, most of the scholarly pilgrims gave
> lectures and donated copies of their works to the mosques of these two cities …

The historical investigation of the medieval libraries of Mecca and Medina indicates that these libraries were involved in situations different from those of other Islamic cities. The great mosque of Mecca and the prophet's mosque in Medina continued to act as the sole cultural and educational centres with emphasis heavily on theological education (p. 6).

Figure 1. Map showing the location and names of the 57 libraries in the holy city of Medina during the fourteenth century of the Islamic (Hijri) calendar (equivalent to 1882–1986 in the Gregorian calendar), many of which were Waqf libraries, such as the Arif Hikmat Waqf library, the Al Busati Waqf library and the Muzhar Al-farouqi Waqf library. The map indicates that Waqf libraries were originally spread around the holy mosque of Medina (they are currently found in different locations for different reasons, as discussed earlier in the Waqf libraries in Mecca and Medina today section). Some of these 57 libraries no longer exist, having been consolidated into relocated Waqf libraries, such as the King Abdul-Aziz complex for Waqf libraries, visited by the researcher. Some still stand independently, such as the Al Busati Waqf library and the Muzhar Al-farouqi Waqf library, also visited by the researcher. The map was acquired from and produced by the King Abdul-Aziz Foundation for Research and Archives, Saudi Arabia (دارة الملك عبد العزيز).

Thesis Layout

The remainder of the thesis is as follows:

Chapter 2 is the literature review, in which there are three major sections. The first section is about the concept of Waqf in general, where a comprehensive review of the concept of Waqf and a Waqf library is presented. This includes the definition of Waqf, the birth of Waqf, types of Waqf, Waqf management, etc. Section Two is a comprehensive review of the concept of a digital library, which also defines the concept of a digital library in general, its types and core elements and key challenges. The last two sections of the chapter, 'Waqf in the digital age' and 'Waqf as a digital library', present the gap in the literature when it comes to the existence of Waqf in the virtual world. Section Three of the chapter is about Saudi Arabia, the focus of this thesis, where the situation with Waqf and Waqf libraries there is presented, among other issues like digital libraries and policies in Saudi Arabia.

Chapter 3 is the methodology chapter, where the methods and steps taken to conduct this thesis, and answer the research questions, are explained, including desk research, field visits to Waqf libraries in Mecca and Medina, and interviews. Chapter 4 presents the findings of the visit to Waqf libraries in Mecca and Medina, which included interviews with the caretakers of those libraries, followed by a section that identifies inquiries and conflicts after the visits. After that, the findings from the interviews with Islamic scholars are presented.

Chapter 5 is the discussion chapter, where the most important issues that need more attention are discussed and addressed in order to be able to create a solid digital Waqf library. Chapter 6 is the conclusion, summing up the important findings of the thesis, any recommendations and future studies.

Chapter 2: Literature Review

As the concept of a digital Waqf libraries is formed of two main parts: Waqf, and digital libraries, this chapter aims to review the literature and make an understanding of those two concepts. Moreover, the literature review also has a section about Saudi Arabia as it is the context and focus of this thesis. Therefore, this chapter comes in three main sections: Waqf/Waqf libraries, digital libraries, and Saudi Arabia

Waqf /Waqf libraries.

Introducing a comprehensive understating of the concept of Waqf in general including its definition, how it came to existence, its different types, its requirements, the differences between Waqf and endowments, etc. This section also reviews the literature about a Waqf library to present an understanding of its history, meaning and types.

Digital libraries.

This section reviews the literature to understand the meaning of a digital library and to present an understanding of a digital library in this thesis, therefore, this section investigates many aspects of a digital library such as definitions, core elements, types and key challenges. The section ends with an investigation of the existence of Waqf in general in the digital atmosphere.

Saudi Arabia.

This thesis focuses and investigates digital practices of Waqf libraries in Mecca and Medina, which are located in Saudi Arabia. This section focuses on investigating different aspects related to Waqf/Waqf libraries, digital libraries, copyright and access within the Saudi Arabian context.

Section One: Waqf

It is essential to understand the meaning of Waqf to be able to form a good understanding of what we mean by a Waqf library, and a digital Waqf library in a later stage. Therefore, this section aims to introduce and explain the concept of Waqf in general, followed by an explanation of the concept of a Waqf library.

Definition

In his book, which talks in detail about the rules, laws, and different opinions, and famous disagreements regarding some points in Waqf, Almoshaqeh (2013) mentions different ways to define Waqf; he ultimately adopted the clearest definition of Waqf, which is to "hold the original asset and extract the benefit" (p. 62). While defining Waqf, Abbasi (2012) said:

> Literally, Waqf means detention and it stems from the Arabic root verb "waqafa", which means "to stop" or "to hold". Under Islamic law, it refers to an institutional arrangement whereby the founder endows his property in favour of some persons or objects. Such property is perpetually reserved for the stated objectives and cannot be alienated by inheritance, sale, gift or otherwise. (p. 124).

Moreover, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) (2017) defines Waqf as, "making a property invulnerable to any disposition that leads to transfer of a property invulnerable to any disposition that leads to transfer of ownership and donating the usufruct of that property to beneficia-ownership, and donating the usufruct of that property to beneficiaries" (p. 814).

Al-Fawzan (2011), an Islamic scholar, in his book *A Summary of Islamic Jurisprudence* summarises how different aspects of the lives of Muslims – for example, marriage and food – should be handled under Islamic law. Chapter 5 of this book briefly addresses Waqf, stating that:

> Endowment (Waqf) refers to the retention of any property that can be benefited from, by suspending disposal of it and dedicating its revenues to public use as an

act of charity. Houses, shops, gardens, and the like, can be examples of property endowment. (p. 205).

Even though this chapter does not specifically mention Waqf libraries, the information in the chapter applies to Waqf libraries.

Haggar (2002) published a study in the magazine of the Islamic university in Medina called 'The History of Waqf Schools in the Holy City of Medina'. He claims that the meaning of Waqf is "stop", referring to stopping control of the Waqf and benefiting from it without compromising the original property. He explains that people endow their properties as Waqf to seek rewards and forgiveness from God. The study also shows how Waqf started and discusses the rules of Waqf in Islam, and how they apply to Waqf libraries. The study also briefly mentions different types of Waqf, including libraries, properties, and others.

Therefore, the concept of Waqf aims to stop an asset from being sold, given away, disposed of, or even inherited, and extracts the benefit from it to certain individuals, groups, or organisations (Nasution, 2002). The four main schools in Islam (Hanafi, Maliki, Shafi'i and Hanbali) agree on this definition, and that the main purpose is to seek rewards and forgiveness from God. This definition applies to all types of Waqf (Aldawood, 1980). Hence, Waqf can be defined as a kind of pious endowment with special requirements and conditions. It aims to continuously benefit communities as well as seek reward and forgiveness from God for the donor of the Waqf. More importantly, we have to understand that in Islam Waqf,

> is also a binding commitment, and, therefore, declaring a property as is also a binding commitment, and, therefore, declaring a property as Waqf would spontaneously deprive its donating owner the right of Waqf, would spontaneously deprive its donating owner the right of ownership" (AAOIFI, 2017, p. 814).

Birth of Waqf

There were two precedents that aided the spread of Waqf. In Islam's authentic book of hadith, which is called *Sahih* by Imam Muslims, it is mentioned that the Prophet (Peace be upon him [PBUH]) said: "When a human being dies, his deeds come to an end except for three deeds (whose rewards are everlasting): ongoing charity, knowledge benefited from (by others), or a pious son who prays for him" (Al-Fawzan, 2011. p. 206).The other precedent is mentioned both in *Sahih* and by Al-Fawzan (2011), who explained it as follows:

> Umar (may Allah be pleased with him) said to the Prophet (PBUH): "O
> Messenger of Allah! I have a land in Khaybar, which I prize highly, so what do
> you order me to do with it?" The Prophet said, "If you like, you can give the
> land as endowment and give its fruits in charity." Thereupon, Umar gave it in
> charity (as an endowment on the condition) that the land and trees will neither
> be sold nor given as a present, nor bequeathed. He endowed it for the poor, for
> his kith and kin, for emancipation of slaves, for the cause of Allah, for travelers
> and for guests. (p. 205).

This story encouraged Muslims to register their belongings, such as wells, homes, gardens, books, and so on, as a Waqf for the greater good and the acceptance and forgiveness of God. From this beginning, Waqf has spread across the Islamic world. Miran (2009) says that "the Islamic religious endowment institution, or Waqf, has been central to the religious, social, economic, and political experiences of Muslim societies since the early days of Islam" (p. 152).

Types of Waqf

There are two main types of Waqf. The first is called *Waqf Khayri*, and it is dedicated to benefiting the public and the community in general. Nour (2015) says that this type of Waqf is one:

> In which the revenues are devoted to philanthropic or public goals.
> Additionally, it dedicated some of the revenues to public services that satisfy
> community needs such as supplying water, streets' paving, hosting and feeding

> the poor, constructing mosques, schools and hospitals, which were religiously
> well appreciated. (p. 20).

The second type of Waqf is called Waqf *Dhurri* or *Ahli*. This type of Waqf is devoted to benefiting the relatives of the *Waqif* (the donor of the Waqf). Nour (2015) says that this second type of Waqf is "donated to the donor's relatives and offspring" (p. 20). Miran (2009) likewise says that: "Islamic legislation distinguishes between Waqf Khayri, which is dedicated to pious causes, and Waqf *Ahli* or *Dhurri* (family), that is endowments that benefit one's children, or family" (p. 152). For example, if a man owns a library and decides to register it as a Waqf *Khayri*, his family has no right to prevent people from accessing this library. Conversely, if that man chooses to register his library as a Waqf *Dhurri*, his relatives can decide to either allow the public access to this library or to keep it to themselves. In addition, the *Waqif* has the right to impose any other conditions he/she considers important.

Waqf Requirements

There is a set of mandatory requirements, or what is known as the four main pillars of Waqf, which must be applied for any donation to be registered as a Waqf. If these requirements cannot be met, then the donation cannot be registered as a Waqf; rather, it could be a normal donation and will not fall under the rules and protections of the Waqf. These requirements are mentioned in many different Islamic studies that discuss Waqf, such as Aldawood (1980), Kbha (1999), Haggar (2002), and Alshangity (2015). The details related to those four main pillars are substantial. Some of these details will be provided briefly in the following section, but to read the full details and what Islamic schools think about them, readers can also refer to Almoshaqeh (2013) and The Kuwait Awqāf Public Foundation (KAPF) (2017).

The requirements are divided into four parts. The first part is a set of requirements on the asset that is to be donated as a Waqf. The second part consists of the requirements for the owner of the donation who wishes to register his donation as a Waqf. The third part is a requirement on the receiver of the benefits of the Waqf, and the fourth requirement is on the official form of binding of the Waqf.

First part: Requirements for the donation to be registered as a Waqf.

1. It must be an original appointed asset, with a known location, which has value that can be extracted without compromising the original asset, and it has to have the ability to be sold.
2. It must be fully owned by the donor at the time of the donation as a Waqf.
3. It must be specifically recognised by the donor. For example, if the donor owns three farms, he must specifically explain and appoint which one is to be donated as a Waqf.
4. Waqf has to be effective immediately at the time of donation.

Second part: Requirements for the donor of the Waqf at the time of donation.

1. The donor has to be a sane adult.
2. The donor has to be recognised (an anonymous donation cannot be accepted as a Waqf).
3. The donor has to legally own his donation at the time of the donation.
4. The donor should have no court restrictions on his donation at the time of the donation.

Third part: Requirements on the receiver of the Waqf.

1. The donation of the Waqf should be for charitable reasons aiming to benefit all or part of the community and/or the donor's family (and this is to be cleared based on the conditions that donors will set).

Fourth part: The official form of the legal binding of the Waqf.

1. The donor has to explicitly pronounce or write the word *Waqf* (regarding the kind of donation that he wants to donate) at the time of the registration of the donation as a Waqf. Otherwise, it will be a normal donation.

After the donation, and the donor, receiver, and registration documentation meet all of the requirements of the Waqf, then the donor will be allowed to register the donation at the court as a Waqf. After that, the donor will clearly register his or her conditions or restrictions to be

enforced with the Waqf donation. These conditions may include who shall manage the Waqf, how it will be managed, and who are the beneficiaries of this Waqf (Ghanem, n.d.). Also, according to Waqf rules and guidelines, after an asset is formally registered as a Waqf, all the conditions and restrictions set by the owner have to be honoured and applied as long as they can be applied. No one is allowed to alter or change any of the conditions, not even the donor himself or the receiver or manager of the Waqf; only the court has full authority in case of any disputation (Alshangity, 2015). The court will refer to the rules and guidelines of Waqf, consider the conditions of the *Waqif*, and then make any decision based on them, carefully trying to keep the Waqf and apply the conditions of the *Waqif* (Ghanem, n.d). Furthermore, what makes Waqf unique is that after the Waqf is donated, it will be saved in the court records and fall under the supervision of the court only. Its ownership will not be under the donor anymore, and the ownership cannot be transferred (Sadeq, 2002).

In addition, in Waqf laws and guidelines, it is important to note that anything inside or attached to a Waqf is considered a Waqf as well. If a donor donates a school as a Waqf, then everything inside this school, from chairs to tables to supplies, is considered a Waqf and no one is allowed to take them away or sell them under any circumstances (Alsiddiqi, 2003). Moreover, if anyone wants to donate something for an existing Waqf asset, they have to acknowledge that once they donate this item to a Waqf property, their donation will automatically fall under the protection of the Waqf and it will by default fall under the conditions and restrictions of that Waqf. If one donates a few books to a Waqf library, and this Waqf library has a condition that it shall serve a specific group of people, then the donation will also be available for that group of people, and the donor cannot ask the Waqf library to allow the books that they donated to serve other groups of people as well.

However, there are times when some, or all of the conditions of a Waqf, cannot be applied anymore for one reason or another (an example of that is the absence of the targeted beneficiaries of a Waqf). In this case, and as mentioned before, this matter has to be brought to the court and then they will determine if they have to change or evolve some or all of the conditions, trying their best to keep the Waqf intact. For example, in 1622 a Waqf school called *Qurat Bash* was established in the holy city of Medina. This Waqf school consisted of rooms, mosques, and a library (Alsiddiqi, 2003). The Waqf library in this Waqf school in the Saudi era had to be moved from its original location that was set by the donor, based on claims

to the court that some people started to steal and sell some books from the library (Alsiddiqi, 2003). Another example is the Waqf library of *Al-Safi*. This Waqf library was established in 1918 in the holy city of Medina (Alsiddiqi, 2003). The library caught fire, but most of the collection survived. Therefore, the Waqf department of the court in the holy city of Medina asked the court to issue an order to move the library to be included with the public library of the holy city of Medina. A court order was then issued for the best interest of this library, and it was moved (Alsiddiqi, 2003).

In another example, the *Kazan* Waqf school, established in the holy city of Medina around 1893, included a small Waqf library (Alsiddiqi, 2003). However, during the Saudi era, and because of the expansion of the holy mosques, the court ordered the school to be moved to a different location, and to move the Waqf library within it and include it with the King Abdulaziz library. One of the conditions of this Waqf school and library, which were set by the donor, was that it shall only serve the people of Kazan. However, since the court determined that this condition was not applicable anymore, they decided to open it to the people of Medina (Alsiddiqi, 2003). The catch here is that in 1893 there were people coming from *Kazan* and living in Medina. However, in the current time, this has changed and people from *Kazan* do not live in Medina anymore and hardly visit. Therefore, the court saw that it was in the best interest of this library to open it to the people of Medina.

Managing Waqf

Initially, the *Waqif* would usually assign someone to act as the Waqf's manager, following the dictates of the *Waqif*. This person was called *Nazir-al-Waqf* and could be a member of the family or somebody else. Nour (2015) states that:

> The founder of the Waqf defines the managerial structure for the whole
> institution in the Waqfiya. He can manage it himself or appoints a manager
> who is called Nazir-al-Waqf or Mutawalli. This manager is in charge of
> maintaining the revenue-generating nature of the main properties of the Waqf,
> distributing the revenues or spending it according to the Waqfiya. (p. 23).

Therefore, it is important to note that the role of Nazir-Al-Waqf can be a person/persons or even an institution or a government body (Alomair, 2018). Alomair (2018) mentioned five main roles/elements that form a successful Waqf, which are as follows: (a) the Waqif (donor of the Waqf); (b) the contract of the Waqf (the Waqfiyah document), where the donor of the Waqf has to explicitly confirm and state that he/she wants to register the property as a Waqf; (c) the beneficiaries of the Waqf, which are the public or the family; (d) the property that is chosen to be a Waqf; and (e) Nazir-Al-Waqf, which is the person or the body that is chosen to manage the Waqf.

The donor of the Waqf (Waqif) can be a person or even an institution (Alomair, 2018). The donor also has to "confirm his/her decision to grant a waqf property and designate its beneficiary, either verbally or in writing. . . . the waqif must undertake the waqf of his/her own free will, without being coerced or harassed or manipulated" (Alomair, 2018, p. 17).

The Waqfiyah document, which is a declaration that a property is a Waqf, includes important information, such as the location of the property, the beneficiaries and how to administer the Waqf; it must be written in clear language and must explicitly state whether the Waqf is public or private (Alomair, 2018). Nowadays, the form and steps that have to be followed to produce and preserve such documents in a legal and formal way will differ from country to country (where the law of Waqf is enforced). For example, in Saudi Arabia, the General Authority for Awqaf is the official government body where such documentation and registration of Waqf occur.

The Nazir Al Waqf, or the manager of the Waqf, merely manages the Waqf; ownership does not transfer to them. As mentioned above, the manager of the Waqf can be an individual or a group, and they can initially be assigned by the donor of the Waqf (Alomair, 2018). However, if a Waqf donor does not specify who will manage the Waqf, or in the case of a public Waqf, the government or the official Waqf body in the country has the obligation to appoint a manager . As Alomair (2018) explained,

Islamic courts, during the Ottoman Empire, continued to supervise and manage all public waqf properties while family waqf were managed by individuals (Mohsin, 2009). After independence, most Muslim countries established ministries to manage waqf properties and the trusteeship of all awqaf was shifted from private individuals and Islamic courts to a centralised administration (Siraj, 2012). Currently, the management of awqaf has witnessed tremendous developments. The role of the nazzir, even in some family awqaf, is now being taken up by a group of people, an entity or the state, rather than by an individual. (p. 21)

Since most Waqf proprieties have financial value, many studies and conferences have discussed the best ways to manage Waqf proprieties, particularly because any kind of Waqf is meant to maintain itself and give benefits forever. Dafterdar (2011), in a study called "Toward Effective Legal Regulations and an Enabling Environment for Inalienable Muslim Endowments (Awqāf)", realises the importance of managing Waqf properly and the ways in which Waqf proprieties could contribute to communities, writing that:

Awqāf institutions are effective organizations for the socio-economic, cultural and religious development of a country. They have no direct political involvement, although they exercise considerable influence on the country's political and social life. Governments now realise the awqāf's significant contribution to their economies and consider the development of this sector as a strategy to boost the economy and complement the government's social initiatives. (p. 666).

Dafterdar (2011) also discusses an important type of Waqf; family Waqf. Moreover, the study mentions that a lack of government regulation of Waqf may discourage people from donating their assets as a Waqf, claiming that:

One of the most critical problems facing the efforts to develop the awqāf sector is the widespread lack of regulations prescribing acceptable norms of corporate governance. As charitable institutions, awqāf organisations are perceived to lack the organisational discipline of for-profit corporations. This has resulted in a very slow pace of developing awqāf properties, hence the reason we see many

awqāf properties often in prime locations remaining vacant, under-developed, or under-utilised. Some have even been lost due to squatting, encroachment or sheer neglect. (p. 666).

Therefore, if there is a lack of government organisations responsible for Waqf, that will affect all kind of Waqf proprieties, including libraries, which could have their contents stolen or destroyed.

Waqf enforcement

Since Waqf is an Islamic law, it needs to be enforced to be successful. Otherwise, there would be no point in donating assets as a Waqf if there was no authority to officially register and look after the Waqf properties and ensure that the conditions of the Waqf were maintained and respected. Today, most Islamic countries have assigned a government agency to manage everything related to Waqf. This practice can be traced back to the Ottoman Empire, as it is believed that they established such a government division. As Dafterdar (2011) writes:

The change came with the Ottomans (1453–1922) who in the early nineteenth century established a special ministry to oversee awqāf affairs and enacted laws for awqāf. The most important of these laws was the Waqf law of 1863, which regulated the registration, control and management of Waqf properties. This law came as a sweeping reform to the prevailing chaos and rogue behaviour of some mutawallīs in the management of awqāf. During the first half of the twentieth century many Muslim countries issued awqāf laws that were based on the Ottoman laws; and by the second half of the twentieth century, most Arab and Muslim countries had gained their independence and enacted new laws that put awqāf under government control. (p. 658).

For example, in Saudi Arabia there is a government agency called the General Authority for Awqāf[2] (Awqāf is the plural word for Waqf in Arabic), which provides many official services connected to Waqf assets in the country, such as supervising Waqf assets, registering Waqf assets, and managing Waqf assets. Furthermore, in the case of any dispute related to Waqf assets, courts in Saudi Arabia have qualified judges who are authorised to look into these cases and give final verdicts while heeding the Islamic laws of Waqf.

Another example is the United Arab Emirates, which has a governmental institution called the General Authority of Islamic Affairs and Endowments (GAIAE)[3], which takes care of nearly everything concerning Waqf. The existence of an official body within Islamic countries that supervises Waqf assets goes back hundreds of years, as Abbasi (2012) explains: "A specialised government department (*dīwān*) to govern public *awqāf* is also found as early as the Umayyad dynasty (661–750 AD)" (p. 124).

However, these examples are within Islamic countries where Waqf is incorporated into the religion and is well applied, respected, and consolidated within the main laws and constitution of the country. This means that most Waqf properties in these countries are still protected to some degree after hundreds of years, and people of today will still feel encouraged to donate Waqf properties, as they are assured that Waqf laws are applied.

Waqf properties also exist in non-Islamic countries and countries that have a significant Muslim population. Therefore, the main questions are: How can Waqf properties be protected? And would Waqf laws be enforced in non-Islamic countries? In countries where Islam is not the major religion or where it was colonialised by non-Islamic nations, Islamic laws, including Waqf laws, were superseded by secular laws. This will result in pausing the supposedly continuous operation of Waqf properties in line with their specific conditions (Obaidullah, 2016).

However, how to deal with Waqf and Waqf properties vary between non-Islamic countries that have a large Muslim population, especially if there are several old historical Waqf

---

[2] https://www.awqaf.gov.sa/ar
[3] https://www.awqaf.gov.ae/en/VisionandMission

properties. Some countries ignored the importance of embedding and recognising Waqf laws, and others decided to respect them (to a degree) and make attempts to regulate Waqf within the general federal laws in the country. Here, two different examples of how non-Islamic countries deal with Waqf that exist within their land and borders are provided. This gives an illustration for readers of the importance of Waqf enforcement, especially for donors who want to donate a Waqf, as donating a Waqf in a country that does not enforce Waqf laws will be challenging.

First, in Tatarstan, Russia, a man named Yakupov was voted by the Muslim board of Tatarstan to act as the first deputy *muftī* regarding Waqf properties in the region (Akhunov, 2015). The Muslims of Tatarstan and the elected *muftī* tried to explain to the state the importance of establishing a law that formally organises and legalises the registration and existence of Waqf propriety and that this should be included within the federal law of the country (Akhunov, 2015). From this example, one can see that Muslims in Tatarstan are aware of, and feel the importance of, having a law that recognises and protects Waqf properties even within non-Islamic countries like Russia. Otherwise, Waqf properties would face possible threats of being lost, neglected, or treated in a way that would breach the Waqf conditions associated with those properties. However, in Tatarstan, it was suggested that Muslims could use Article 582 of the civil code of the Russian Federation (Donations) to be used by Muslims when it comes to their Waqf proprieties (Akhunov, 2015). This article is not tailored to be in alignment with the laws of Waqf. For example, section four of Article 582 states that in case the endowment in line with the purposes indicated by the donor cannot be used, the donation can then be used for other purposes with the consent of the donor, whereas in Waqf, once the donor donates a property as a Waqf, he is no longer tied with it, and any changes have to go through the court.

Therefore, if Muslims of Tatarstan were to accept such a suggestion, this would create a dilemma for Waqf properties. For example, in a non-Waqf donation, the donor might be consulted in the future regarding their donations in case of any problems, while in Waqf, once a person donates property as a Waqf, then they forfeit ownership of that property immediately, and only the specialised court can determine the future fate of the Waqf in case of any issues. Despite the fact that Muslims of Tatarstan used land and properties as a Waqf, this ultimately resulted in the loss of a lot of property due to the absence of a clear, legal federal mechanism to register Waqf properties (Akhunov, 2015). Ultimately, this resulted in a feeling of

disappointment among Muslims of Tatarstan because of their unsuccessful attempts to incorporate Waqf laws within the general laws of a non-Muslim country to protect their Waqf properties, as in Islamic countries. As Akhunov (2015) explains:

> All the initiatives to amend the relevant federal law were rejected. Information about buildings, lands transferred to the possession of Muslims and incomes from the very operations remains closed. The loss of property occurs because of the absence of clearly registered Waqf buildings, which has no legal status at all. All these problems require the most immediate solution and manifest the fact that in a secular state institutionalization of the Waqf system is practically impossible … the issue of legitimization of Waqf in the framework of Russian legislative environment requires urgent steps. (p. 162).

On the other hand, in India, a country where its constitution asserts that India is a secular nation and a country where Islam is the second major religion, India made different attempts to create legal Waqf acts: "India has witnessed multiple Waqf laws beginning in 1810. The more recent enactments have been the Wakf Act 1954, Wakf Amendment Act 1984, Wakf Act 1995, and now the Wakf Amendment Act 2013" (Obaidullah, 2016, p. 57).

In India, there are large amounts of Waqf property and infrastructure that now lie under the jurisdiction of the Ministry of Minorities Affairs (Obaidullah, 2016). However, as mentioned previously, India has different Waqf acts, which give India power regarding managing, protecting, and regulating Waqf properties. Furthermore, India created Waqf boards that exist in different states and were created as a result of Sections 13 and 14 of the Indian Wakf Act 1995 (Obaidullah, 2016). In 1964, India established what is called the Central Waqf Council, a legal organisation aimed at advising the government regarding all Waqf matters in the country (Obaidullah, 2016).

With all this happening in India regarding recognising and aiming to regulate Waqf laws, that does not mean the system is free of problems and breaches when it comes to Waqf. Obaidullah (2016) explains, "The Islamic endowments in India are characterised by massive encroachment by state agencies and corporate entities, raising serious concerns of

preservation. According to one estimate, currently in Delhi alone, over 30 per cent of about 2,000 Waqf properties are illegally occupied by government agencies" (p. 57). However, this kind of breach and injustice towards Waqf is nowhere near what it could have been if there was no recognition of Waqf laws in India at all.

These examples illustrate the importance of enforcing the laws of Waqf in any country where Waqf properties exist. Otherwise, these properties will be lost. This is also evident as we explore the concepts of digital Waqf libraries, physical Waqf libraries, and Waqf content. Wherever these exist in Islamic countries, they will be legally protected, but where these exist in non-Islamic countries, it will depend on whether the country recognises the laws of Waqf. Therefore, this will provide a perspective on the importance of acknowledging Waqf laws in non-Islamic countries (especially ones that already have Waqf properties within their land), which is a particularly important step to implement successful digital Waqf libraries in the future.

One solution to the issue of non-enforcement of Waqf in non-Islamic countries is that Muslims might donate a Waqf in a Muslim country that enforces Waqf laws. This has been happening with Waqf libraries in Mecca and Medina as they used to receive Waqf donations from Muslims around the world including Muslims who do not live in Islamic countries.

Disagreements within Waqf laws among Islamic scholars

Disagreements between Islamic scholars regarding some of the Islamic laws in general and Waqf laws are very common. Almoshaqeh (2013) discussed in detail the concept of Waqf, mentioning every legal aspect of Waqf and how to handle it, while also discussing the opinions of different Islamic schools of thought and all the disagreements among them in three volumes (numbering more than 1,000 pages). However, due to its importance, some of the famous disagreements in Waqf matters among Islamic scholars will be briefly presented to give a clearer idea of what is meant by disagreements in Waqf. The aim of this section is to illustrate that it is normal to have and reach different judgements by Islamic scholars when it comes to Waqf issues. Therefore, the findings of this thesis when it comes to the existing of Waqf libraries can be seen as one way as to how a digital library can be registered as a Waqf. Other scholars in the future might have different opinions.

A famous disagreement is regarding whether movable or transferable items (like physical books) can be Waqf or not. Almoshaqeh (2013) mentioned that Islamic scholars had disagreements concerning this matter and provided in detail the claim of each group of Islamic scholars; ones who agree or disagree on this. Ultimately, Almoshaqeh (2013) leaned towards and toggled the opinions that allow registering the Waqf of movable or transferable items and assets. AAOIFI (2017) also echoed this opinion by saying that "Waqf is permissible in movable assets, whether such movable assets are part of a real estate or independent" (p. 817).

Another example is when it comes to the issue of whether money can be Waqf or not. Almoshaqeh (2013) mentions that there is a famous disagreement between Islamic scholars regarding this matter. However, ultimately he believes that the evidence supporting money to be registered as a Waqf is logical. Therefore, he believes that money can be a Waqf.

KAPF (2017) also outlined the disagreement between Islamic scholars and schools regarding whether money can be a Waqf or not and explained that some of them allow it while others do not. However, in verdict number 140, the International Islamic *Fiqh* Academy said that cash money can be a Waqf. Moreover, AAOIFI (2017) also agreed that nowadays money can be Waqf, but without comprising the original amount of money that was first registered as a Waqf. Therefore, they concluded that, "Waqf is permissible in money. The income generated from utilisation of the money is to be spent, while retaining the principal amount" (AAOIFI, 2017, p. 817).

Another main disagreement between Islamic scholars is whether it is allowed to accept a temporary Waqf, such as someone donating a Waqf and indicating that this is a Waqf for only ten years. Almoshaqeh (2013) mentioned in detail the disagreement between Islamic scholars regarding this matter, as some do not allow a temporary Waqf at all; some say it shall be accepted but by ignoring the time condition, and others allow this kind of Waqf. However, Almoshaqeh (2013) believes that a temporary Waqf should be accepted, claiming that any kind of good deeds that bring a person closer to God must not be rejected.

KAPF (2017) also mentioned that there are different sayings and agreements between Islamic scholars regarding whether a temporary Waqf is allowed. They mentioned that while some say

it is allowed, the majority of Islamic scholars from the different Islamic schools of the *Hanafi*, *Hanbali*, and *Shafi* schools do not approve or allow a temporary Waqf. Furthermore, they said that in the case of a donation with a time limit, this donation cannot be Waqf, and it could be treated as a normal donation, or what is known as a *Sadaqah*.

When it comes to details concerning the laws of Waqf and what is allowed and what is not allowed, there are some disagreements between Islamic scholars and the four main Islamic schools of thought. As mentioned previously, an in-depth examination of these disagreements was not the focus of this thesis, nor was it to investigate Waqf from only a religious perspective. Rather, the aim of this thesis is to investigate in general how a digital library can be registered as a Waqf. However, understanding the involvement of the religious aspect is important and allows us to understand (without going too deeply into the concept of Waqf) how to register a digital library as a Waqf in a simple way. This discussion of famous disagreements relating to Waqf illustrates that disagreements are normal, and that people have the right to follow and discuss those opinions as they desire. Disagreement between Islamic scholars does not void each other's opinion; they are all considered correct to the best of the individual's knowledge. To see a more comprehensive discussion about the disagreement between Islamic scholars around different topics in Waqf, refer to Almosheqeh (2013) and KAPF (2017).

Waqf vs similar terms/ laws

This section illustrate the similarities and differences between Waqf and other terms that we believe might seems similar to Waqf in the way the function.

Law/notion of trust

There are many definitions of the law/notion of trust. Hudson (2010) stated that "the trust permits a division in the ownership of the trust property between a trustee and a beneficiary so that the trustee is compelled to act entirely in the best interests of the beneficiary in relation to the management of whatever property is held on trust" (p. 41). Moreover, Gvelesiani (2021) defined a trust as follows:

the trust is a legal relationship by which assets intended to benefit specific beneficiaries are managed by a trustee, rather than a settlor (the person allocating assets). Accordingly, the trust places one's confidence in another person, who acts in a beneficiary's interest. (p. 737)

Anyone who reads through the Islamic law of Waqf and the law/notion of trust will undoubtedly start to envision a strong similarity between the two laws. Even though Waqf is Islamic law in nature and trust is associated with secular nations, there are surprising similarities between these two laws from the outside. Some scholars have noted and talked about the similarities between the Waqf and trust. Gaudiosi (1988) stated that "The similarities between the waqf and the early English trust striking " (p. 1246), as well as that "the similarities between the waqf and the trust were pointed out in a law journal as early as 1949, few western legal scholars appear to have seriously examined the issue" (p. 1256).

Furthermore, as Nurfadzilah Yahaya (as cited in Wu, 2018) explained,

> The establishment of a waqf was comparable to establishing a trust in England. In order to establish a waqf, the settlor would sequester the property such that it became perpetually inalienable, and appoint a trustee to manage the property. According to shari'a, the act was deemed legally irrevocable as it entailed the complete transfer of the right to ownership from the hands of the founder (also known as waqif) to those of God. (pp. 2277–2278)

The main components of both laws are almost the same. Each law has a main person who is the original owner/donor of the property. In Waqf, it is called the Waqif; in a trust, it is called the settlor. There is also the person who takes care of the donated property, manages the property and makes sure to follow the associated conditions of the donated property. In Waqf, it is called Nazir Al Waqf or the Mutawalli; in trust, it is called the trustee. In addition, both laws have specific beneficiaries that are chosen by the donor (Gaudiosi, 1988). Gvelesiani (2021) explained some of the common ground between the Waqf and trust concepts:

> It is noteworthy that the common law trust and the Islamic waqf are two important legal and economic mechanisms. Under both institutions, the assets are reserved, while

> the usufruct is appropriated for the benefit of a specific individual or for a charitable purpose. (p. 743)

Therefore, some scholars have discussed the possibility that trusts may have been founded on the basis of the concept of the Waqf. Gaudiosi (1988) argued,

> While Western legal scholars dispute the origin of the trust in England, whether Roman or Germanic. . . . Given the deficiencies in the prevailing theories, some scholars have turned to Islamic law for the origin of the trust Sufficient contact existed between Islam and the West to warrant further investigation of such a theory. The emergence of the trust coincides with a period of increased contacts between Europe and the Muslim world. The very Franciscan Friars who are believed to have introduced the use in England were active in the Middle East. Saint Francis himself spent parts of 1219 and 1220 in Islamic territory. (pp. 1240–1244)

According to Abdullah (2016), "the closest parallel to the nature and features of trust is located in Islamic waqf. There are also assertions that the concept of trust was borrowed from the model of waqf in 12th century CE" (p. 336). Hudson (2010) also discussed the possibility that the European Crusaders learned about the idea of Waqf while in the Middle East and brought this knowledge back to Europe with them. Gvelesiani (2021) contends that "waqf appeared in the Islamic Middle East in the 7th century CE. The common law trust originated later, in the 12th century. Some scholars believe that the trust could adapt the model and structure of its Islamic 'predecessor'" (p. 743).

It is important to understand that even though Waqf and may appear similar, they are actually quite different. For example, in terms of the main purpose of the trust and Waqf, the aim of creating a trust does not have to be related to religious factors or connected in any way to God or seeking rewards and forgiveness from God; in contrast, the main reason to establish a Waqf is to get closer to God and seek his rewards and forgiveness, followed by benefitting either the donor's family or the general community. As Wu (2018) explained, "In contrast to the English notion of charity law, the Islamic concept of religious purposes is to seek the approval of the Almighty" (p. 2280). Abdullah (2016) also commented,

in certain aspects, trust and waqf differ with each other. While trust is a secular device of property-disposition, waqf has its religious identity. The immediate implication of this disparity between the two devices is manifested in their being value-free or value-based institutions. Compared to trust, waqf is applicable only for purposes which are sanctioned by shariah (Islamic law). Additionally, while a waqf is always perpetual, trust is not. (p. 337)

Another difference is about ownership: the legal ownership of the donated trust property will transfer to the trustee, who will become the legal owners of the trust (Hudson, 2010). In Waqf, legal ownership does not transfer to anybody, and the donor's name will stay associated with the Waqf, although the donor is no longer the actual owner of the Waqf; here, God becomes the owner of the Waqf. Marwah and Bolz (2009) explained the issue of ownership as follows:

An important point here is the breadth of powers granted to the trustee of a trust and the Mutawalli of a Waqf, respectively. Since the assets of a trust are legally owned by its trustees for the benefit of the beneficiaries, trust law generally permits the trustees to transact with the assets of the trust as they deem appropriate. In a Waqf, the Mutawalli does not own but rather administers the assets in accordance with the wishes of the Waqef and accordingly, his powers are traditionally rather more limited and proscribed than those of a trustee (although, they can be drafted widely if the Waqef so desires). (pp. 812–813)

Some differences between Waqf and trust relate to the type of donated property. While a trust is secular in nature, a Waqf has to abide by Islamic rules. Therefore, there are some limitations on what kind of property can be registered as a Waqf, and this has to be in line with Islamic Sharia laws; for example "it would not be permissible for businesses dealing in alcohol or pork to be held as assets of the waqf" (Stibbard, Russell, & Bromley, 2012, p. 791). Moreover, as Gvelesiani (2021) explained,

The waqf may comprise the immovable and movable assets. The valuables/assets must fulfill the criteria of Shari'ah-compliance. Simply, an item, which contradicts the essential principles of Shari'ah, such as alcohol-related paraphernalia or gambling merchandise, would fall short of qualifying criteria for the waqf. (p. 742)

Another important difference between Waqf and trust relates to the issue of perpetuity. In the beginning of the Literature Review chapter, we explained that Waqf aims to preserve all Waqf donations forever in perpetuity, and Islamic scholars have stressed the importance of the perpetuity of a Waqf. A temporary, conditional donation or a donation that ends after a certain period cannot be accepted as a Waqf; instead, it should be accepted as a normal donation. In contrast, a trust does not have the condition that the trust has to last and be protected forever. As Gvelesiani (2021) explained,

> Permanency or perpetuity is one of the major divergences. The waqf has a perpetual nature, while the trust becomes perpetual only in case of a special indication made in a trust deed. Moreover, the trust is a tripartite relationship, while the traditional model of the waqf necessitates the existence of four major participants. The qadi and his important functions are not presented in the trust. . . . Accordingly, the comparative analysis revealed that there is a particular similarity between the trust and the traditional model of the waqf. However, there are quite important dissimilarities. (p. 744)

Actually, a trust has something called the "rules against perpetuities[,] which require trust assets to vest within certain specified timeframes" (Marwah & Bolz, 2009, p. 814). This rule applies mostly to non-charitable trusts to help maximise wealth (Marwah & Bolz, 2009). Therefore, it is interesting to see that in non-Islamic nations, there is a law that is similar to that of a Waqf; perhaps more studies can research in detail those two laws in the future, which may benefit Muslims who live in non-Islamic nations.

Endowments

Even though Waqf is defined as a kind of endowment, it significantly differs from normal (non-Waqf) endowments that exist in Muslim or non-Muslim communities. A Waqf endowment, as mentioned earlier, has a set of requirements, which must be applied to the donation and the donor, or else it will not be considered a Waqf; while in the case of normal

endowments, the receivers will decide if they will accept the donation or not and they will have the authority to manage it to the best of their interest.

Almoshaqeh (2013), who has written a leading Islamic book on Waqf, described some of the differences between Waqf endowments and normal endowments, of which the main motivation to donate a Waqf endowment is that it is a way to get closer to God and seek his forgiveness. However, normal endowments might have different motivations, such as seeking recognition or trying to form a good and closer relationship with the entity that receives the endowment. In the case of normal endowments, sometimes the donor can be referred to and consulted regarding their donation in case of any issues or problems, while in Waqf, once the donations are registered as a Waqf, the donors lose ownership immediately and only a specialised court can assist in the case of any issues or problems.

KAPF (2017) mentioned that another main difference between normal endowments and Waqf endowments is that in the case of normal endowments, the receiver could have ownership over the donated assets. However, in Waqf donations, the receiver will be using the benefits (usufruct) of the donated assets without compromising the original assets by, for example, selling it or giving it away.

Another major difference is that a Waqf endowment cannot be accepted from an anonymous donor, while normal endowments can be from anonymous sources, and universities around the world receive millions in endowments from anonymous donors every year. For example, in 2017 the Massachusetts Institute of Technology (MIT) announced that it received $140 million from an anonymous alumnus (MIT, 2017). If such a donation was to be donated as a Waqf in a country that enforces Waqf, it would not be accepted because it is anonymous and that is against the laws of Waqf.

A further major difference is that normal endowments and Waqf endowments are about authority: who has decision-making power regarding any problems that come up with managing the endowment. As mentioned earlier, a Waqf donation can only be under the supervision of the court, and although individuals may petition the courts for changes to a Waqf, only the courts possess the authority to make significant modifications to the conditions of the Waqf. On the other hand, both the donor and receiver can potentially make changes to

normal non-Waqf endowments, and they have the right to manage it to the best of their interest. However, there is a type of normal endowment, which has a small similarity to Waqf, called a restricted endowment. This type of endowment exists in the Western world, and it is when a donor places a restriction on the endowment that it shall benefit a specific group or department in a university, etc. (Helms, Henkin, and Murray, 2005). The similarity between restricted normal endowments and Waqf endowments is that in both cases the donor will set a series of conditions to determine who should benefit from the donation. However, Waqf still has mandatory requirements to be approved as a Waqf in the first place, which the normal restricted endowments do not have.

In the case of normal restricted endowments, if there is any problem in applying one or more of the conditions, usually the receiver will take action or reach out to the donor, if still alive, to seek permission to alter the conditions. In Waqf, only the court has the ability to do that, not the donor nor the receiver. An example of this is the endowment policy of the University of Edinburgh, as indicated on their official website. Their endowment policy defines restricted endowments as "... endowments are to be used for the specific purpose or activity designated by the donor and may be used only for that purpose or activity" (University of Edinburgh, 2017). However, in their policy they mention that in order to change any of the restrictions imposed on a restricted endowment, they first have to seek the permission of the donor (University of Edinburgh, 2017). And here is a crucial difference; as in Waqf endowments one can never refer to the donor regarding his Waqf donation; after the registration of a Waqf, the donor will no longer have ownership or any authority over it, and only the court does.

Therefore, the concept of endowment in English is close to that of a Waqf in terms of definition. However, a Waqf differs from normal endowments or gifts. A Waqf always has special and unique conditions given by the person who made the Waqf. A Waqf must be registered as such with the authorities (court or the government), and the *Waqif* (owner of the Waqf) must specify who should benefit from the Waqf and how it is to be managed. No one has control over or the ability to amend the conditions dictated by the *Waqif*, which are meant to stay forever. For example, if a person donated 10 flats as a Waqf and specified that the money generated from renting these flats should go to a certain group or organisation, the authorities must manage the finance of this Waqf to protect it from being stolen or

mismanaged, and determine how much money will be deducted from the income to maintain the Waqf property. According to Kahf (1999):

> Waqf may be defined as 'holding a māl (asset) and preventing its consumption for the purpose of repeatedly extracting its usufruct for the benefit of an objective representing righteousness/ philanthropy.' Hence, a Waqf is a continuously usufruct-giving asset as long as its principal is preserved. (p. 41).

The differences between Waqf donations and normal donations (non Waqf) can be found in a lot of Waqf resources such as Almosheqeh (2013) and KAPF (2017).

Waqf as a library

After explaining the difference between Waqf and non Waqf endowments, which applies to libraries, this section aims to review the concept of a Waqf library in detail. However, it starts by briefly investigating the meaning of a library, then proceeds to explain the role of libraries within the Islamic civilisation, and the last section is dedicated to investigating Waqf libraries in specific, which is essential to understand at an early stage to be able to easily understand what a digital Waqf library mean later on

What is a library?

The term library has evolved over time. A library was not always a dedicated building with an organised collection of different materials with different methods to retrieve information. In the past, the word library often referred merely to a book or even a shelf. Libraries were not always separate places. According to Too (2010), the word library "translates the Greek noun bibliothêkê, which probably rather means 'bookcase' or 'shelf', which the Latin librarium also translates: so also, Greek biblos literally means 'papyrus', biblia means 'books', and Latin liber translates as 'book', respectively" (p. 2). Moreover, Lidman (2012) mentioned that the

word bibliothek consists of two parts: a book and a storage room. Therefore, the word library originally meant a book storage room.

When reviewing the different definitions of a library, two important elements that are repeated and emphasised are that libraries are organised and provide access. These two elements are important in what we can consider as a library. Therefore, a set of random books that is not organised and not accessible to users cannot be considered a library.

Ranganathan (1931, as cited in Mollah, Anwaruzzaman, and Kundu, 2012) defined a library, stating that "A library is a public institution or establishment charged with the care of a collection of books and the duty of making them accessible to those who require use of them" (p. 61). Eberhart (2010, as cited in American Library Association, 2019) defines libraries as follows:

> A library is a collection of resources in a variety of formats that is (1) organized by information professionals or other experts who (2) provide convenient physical, digital, bibliographic, or intellectual access and (3) offer targeted services and programmes (4) with the mission of educating, informing, or entertaining a variety of audiences (5) and the goal of stimulating individual learning and advancing society as a whole. (p. 1).

In addition, Issa (2009) defines a library as "the repository, lender, acquirer, and borrower of organised information with the most emphases being on pre-packaged information for ready access and delivery to users" (p.15). Bhar, Mallik, Ray, and Modak (2018) identified a library as:

> A house which organise the collection of documents to preserve them and make them available to use. It also provides them to the users according to their needs. It collect, organise and disseminate right information to the right user in the right time for solving their queries. (p.1).

Hence, a library can be defined as an organisation that stores an organised collection of information of different materials and provides an effective method to access, retrieve, and search information within that collection. This organisation can be created and managed independently or by different bodies, and aims to serve all or a specific group of users.

Scholars generally agree that one of the major goals of a library is to acquire and collect the right materials to serve the purposes of its mission and targeted users. As Issa (2009) explains, "The central mission of a library is to collect, organise, preserve, and provide access to knowledge and information" (p. 70). While this is true for almost all types of libraries, it is not necessarily a vital part of all types of Waqf libraries. As explained in the Waqf part of the literature review, a Waqf library aims to sustain and hold its original collection forever and give the benefit of that collection to the specific community chosen by the donor of the Waqf. Therefore, some types of Waqf libraries, such as family/private Waqf libraries, do not aim to collect or acquire new materials, rather they aim to preserve the original collection forever. There are some Waqf libraries that still hold their original collections like the Arif Hikmat Waqf library in Medina. However, since Waqf libraries are not properly introduced in the literature and not properly investigated, the idea of a library always aiming to collect and acquire new materials became the norm.

The concept of libraries probably emerged as soon as the Sumerians began etching on clay tablets and keeping them in boxes (Weise 2004). Clay is one of the methods used to store information among others like scrolls, papyrus, parchment paper, codex, papyrus rolls, and later, paper (Hansson, 2010; Lidman, 2012). Moreover, people used to store these different materials that contain information in different places, such as homes and temples, before the emergence of a library as its own place. Knig, Oikonomopoulou, and Woolf (2013) state that "Ancient libraries were often housed in temples, and they were closely connected with the display of the power and reputation of their founders"(p.6).

It is not easy to point to a definite time when the concept of libraries appeared in the current form nowadays (Hansson, 2010). However, it is believed that Ebla library might be the oldest library, existing sometime between 2300 and 2600 BC. It contained a large, organised collection of clay tablets (Hansson, 2010). Moreover, Lidman (2012) believes that the word library was not used before 500 BC. Bhar et al. (2018) believe that it is difficult to know when

the word library was first used, and they state that "most provably this word first used in 14th century in Middle English" (p. 2). However, another study found what can be considered a set of books (which is close enough to a library) that might have existed during the Bronze Age (3000 BC to 1200 BC):

> The first texts that can be reasonably regarded as books appeared in the Bronze Age of the near East, and the first collections of books are attested in the temples and palace of third millennium Mesopotamia and Syria, and second millennium Anatolia and Egypt (Knig et al., 2013, p. 9).

The emergence of the first libraries came with many challenges, such as the production of false information and texts, as it was difficult to distinguish fake information from the truth. As Too (2010) says:

> In their eagerness to acquire volumes for the Library, the Ptolemies prompted the production of fake texts by offering payment for those who could bring them the writings of the Greek world. Individuals produced spurious texts in the hope of a reward, and accordingly, the library could never be an authoritative institution. (p. 90)

Moreover, in the past, libraries and their contents travelled between nations and cultures through different methods like trade and war. According to Too (2010), "War and the transportation of booty is one of the ways that antiquity's library travels from culture to culture, from Athens to the East, back to Athens, then to Northern Egypt, and, finally, to Rome" (p. 49).

However, the early sixteenth century witnessed a rapid increase in printed books when books became valuable items to collect and many collections were established, mainly as private collections owned by politicians and royalty, especially in Europe (Hansson, 2010). The invention of printed books was a very important shift that impacted culture, society, and libraries, as books became items of a mass production (Hansson, 2010).

Soon the concept of libraries evolved around the world and people began to realise the importance of libraries and their potential to spread knowledge and help nations develop. Weise (2004) says that "Early universities paid scant attention to the library as a place except for storage. Not until the scientific revolution, when discovery and knowledge became the purpose of the university, did the library as a place take on value" (p. 12). Libraries have become an important part of every academic institution and are critical to scholars and researchers, supporting invention and development in all fields. As Knig et al (2013) state, "Scholars in the humanities today sometimes refer to libraries as 'our laboratories' meaning the comprehensive and expertly curated collections of books and electronic resources that are the essential resources needed for conducting research" (p. 18).

Libraries and Islamic civilisation

Libraries have existed from the beginning of Islam. Mosque libraries were the first type of libraries to appear in Islam, as BenAicha (1986) explains: "With the establishment of Islam as the cultural and political foundation of the Arab world, mosques flourished beyond being mere places of worship … mosques were a natural choice for establishing the first libraries in the Arab world" (p. 253). Mosque libraries are a type of Waqf libraries. Therefore, Waqf libraries were some of the first libraries to contribute to shaping Islamic civilisation.

Since the time of the Prophet Mohammed, Muslims have valued knowledge. After the death of the Prophet (632 AD), Arab Muslims needed to store and circulate the knowledge that they had learned from him, especially Quran verses. In the beginning, the Prophet's companions would gather with people and dictate the information they remembered from the Prophet; some people memorised this information, and some recorded it in their personal notebooks. Therefore, it could be said that the personal notes made and kept by the Prophet's companions helped form and create libraries in Islam. Green (1988) says:

> Scholarship was, on the one hand, adapted by Arabs to their own introspective activities – Qur'anic exegesis, Arabic philology, and the codification or oral prophetic traditions (hadiths) – that began soon after Muhammad's death (632 AD). The method used by pioneering scholars consisted essentially in culling the memories of the Prophet's surviving contemporaries for materials that

could illuminate words of scripture or points of theology/law/ethics –
particularly examples of ancient songs or poetry and anecdotes of the Prophet's
sayings or doings. (p. 456).

At that time, paper had not yet been invented, therefore, people used different materials for writing, such as parchments and palm leaves. Some of these materials were used to copy the first book in Islam: the Quran. Hamadeh (1962) claims:

The early Arabs, in the time of orthodox caliphs and in the Umayyad period,
wrote their writing on the palm leaves, thin stones, papyrus, parchments. We
heard that Abu Backus, the first caliph after Muhammad, used parchments to
write the first copy of Koran. (p. 49).

In that same era, Arab Muslims also started to translate Greek books and recover their knowledge. Many of these texts were added to the Arabic Muslims' libraries, which already held Islamic books. Green (1988) says:

Later Arab scholars lined two Umayyads, Prince Khalid b. Yazid (d. 685) and
Caliph Umar II (d. 720), with the start of Arab interest in Hellenistic science
and with a resultant Umayyad "palace library" in Damascus … this library
reputedly consisted largely of commissioned translation from Greek and Coptic
texts. (p. 457).

In the Abbasid era (750–1258 AD), the Arabic rulers encouraged scholars to translate and copy every resource they could. As Hamadeh (1962) says:

The Abbasids were the first to foster Greek learning on large scale, and AL
Mansur (754–775), the founder of Baghdad, was one of its first patrons. The
enthusiasm for the products of older cultures grew and expanded to include also
works from Persian and Indian sources. Scholars were employed to gather,
copy, translate, and comment on all sorts of literature from any and all sources.
(p. 24).

It was not until the late eighth century that Arab Muslims learned from the Chinese how to make paper, and then passed it to Europe. The discovery of paper accelerated the growth of writing and the number of printed books, which started to increase rapidly. According to Green (1988): "The impact of the introduction of paper from China (late eighth century) on Arab society's book-making and book-collecting activities was as profound as that of printing on those of Europe later" (p. 4).

One of the first and most important libraries in the Arabic and Islamic world was the Dar al-Hikma library in Baghdad (813 AD), which was one of the first to use and produce paper. Dar al-Hikma and contemporary libraries were used by scholars and open to the public (Green, 1988).

Khalid Ibn Yazid (665–705 AD), an early Arab Muslim, could be considered the founder of the first Islamic public libraries (Hamadeh, 1962). He ordered the Arabic translation of Greek books in different disciplines (Hamadeh, 1962) and was himself an author and lover of books and science. Hamadeh (1962) says the following about Khalid Ibn Yazid: "He has translations made of Greek books on Alchemy, Medicine and astronomy (or Astrology)" (p. 19).

During the Abbasid era (750–1258 AD), which witnessed the growth of library collections and the discovery of paper, all types of libraries existed – from public to private to academic and Waqf libraries. Hamadeh (1962), when talking about the Abbasid era, mentions the following:

> In respect to their form we see in this period the rise of all kinds of libraries
> known in the world – public libraries, academic libraries, university libraries,
> private libraries, caliphate or state libraries, school libraries, mosque libraries,
> hospital libraries, etc. (p. 25).

Waqf libraries and their types

Waqf libraries are a type of Waqf, some of which are ancient libraries, and many old Waqf libraries still exist today and contain valuable historical collections that include manuscripts,

books, and artefacts. Hence, a Waqf library is a kind of public service body where the owner maintains the collection for the benefit of certain people or organisations.

In most cases, Waqf library studies do not define Waqf libraries as a concept; rather, they always rely on the general definition of Waqf, which will apply to any type of Waqf, including libraries. Examples include studies such as those of Moftie (2003), Hmadi (1996), Beiligi (2013), and Haggar (2002). Even though these studies are about Waqf libraries, they do not include an explicit definition of Waqf libraries. Rather, they contain a definition of Waqf, and then they will proceed to talk about the subject, whether it is a history of Waqf libraries or examples of Waqf libraries throughout history. One study did explicitly define Waqf libraries – a PhD thesis by Alshangity (2015) defines a Waqf library in this way:

> A library that was created legally through individuals or legal entities for the purpose of providing its services to the community in a charitable way based on the conditions that have been set by the *Waqif* (the owner of the Waqf library). (p. 46).

Waqf libraries, as any other types of Waqf, will have to follow the requirements of Waqf mentioned earlier and honour any conditions imposed by the donor. Therefore, if a person wants to donate a library as a Waqf, and the requirements of Waqf do not apply to the donation and the donor, then it cannot be accepted and shall not be called a Waqf library. Hence, Waqf libraries differ from other types of libraries and museums in that Waqf libraries follow the rules and guidelines of Waqf. While very often non-Waqf libraries or museums will have board members to act upon any matters, Waqf libraries can only refer to the court any action that is needed.Libraries have benefited from the ability to follow Waqf rules; as a result, a great number of Waqf libraries have existed over the centuries. Nevertheless, Stibbard, Russell, and Bromley (2012) stated that:

> Although religious aims were the major focus of *awqāf*, education in general was the second recipient of Waqf revenues. Indeed, there are examples of this from the late 12th century onwards. This Waqf financing of education covered libraries, books, salaries of teachers and other staff, and stipends for students. (p. 794).

However, in the literature, Waqf libraries have not received as much attention as other libraries, even in the Islamic world. The majority of users in the Islamic world do not have enough knowledge about Waqf in general, let alone Waqf libraries (Kbha, 1999). Waqf libraries have been important contributors to shaping Islamic civilisation due to their valuable collections that include books, manuscripts, and artefacts. Hennigan (1999) explained that and stated, "it is not an exaggeration to claim that the Waqf, or a pious endowment created in perpetuity, has provided the foundation for much of what is considered 'Islamic civilization'" (p. 1).

Abbasi (2012) describes Waqf "as the most important institution, which provided the foundation for Islamic civilization, as it was interwoven with the entire religious life and the social economy of Muslims" (p. 121). To understand how Waqf was and is widely used and popularised within Islamic communities, one needs to look to its history. In the early twentieth century, about two-thirds of the property within the Ottoman Empire was Waqf, and one-third of the lands in Tunisia and one-half in Algeria were Waqf (Abbasi, 2012).

Waqf libraries spread through the Islamic world into cities such as Damascus, Istanbul, Mecca, Medina, and Cairo; some still exist, while others have been destroyed due to wars, such as the conflict in the western Kosovo town of Gjakova/Djakovica. In this example, the Waqf library of *Hadum Suleiman Aga,* which was founded in 1595, was burned by the Serb military around 1999, which resulted in the loss of its complete ancient collection (Riedlmayer, 2007).While there are many different types of Waqf libraries, there is no agreement on the specific number of types. For example, Saati (1996) defined seven types of Waqf libraries:

1. *Al-Ama* (العامة) Waqf libraries, which are meant to benefit the general public forever.
2. *Jawame* (جوامع) Waqf libraries, where the word *jawame* in Arabic means mosques.
3. *Madars* (مدارس) Waqf libraries, where the word *madars* in Arabic means schools.
4. *Maristanat* (مارستانات) Waqf libraries, where the word *maristanat* was originally a Persian word meaning hospitals.
5. *Rebat* and *kanghat* (الربط والخانقاهات) Waqf libraries, which provide shelter and help to poor people and travellers.

6. *Magaber* and *terb* (المقابر والترب) Waqf libraries, which are rare libraries in cemeteries.

7. Unidentified Waqf libraries, where the owners failed to clarify their conditions or rules in terms of location or users. This type of Waqf library is the most likely to get neglected after the death of the owner.

In contrast, Alsiddiqi (2003) divided Waqf libraries into two main types, which included similar types to those mentioned in the previous study:

1. General Waqf libraries, including *madars* (مدارس) Waqf libraries, *masajed* (مساجد) Waqf libraries (which means mosques' Waqf libraries), *rebat* Waqf libraries, and *maristanat* Waqf libraries.

2. Private Waqf libraries, which exist in people's homes.

Finally, Alshangity (2015) identified the following 12 types of Waqf libraries, some of which are mentioned in the previous two studies:

1. *Masajed* (مساجد) Waqf libraries (mosque Waqf libraries).

2. *Al-Ktateb* (الكتاتيب) Waqf libraries in schools where they used to teach students to read and write.

3. *Al-Madares* (المدارس) Waqf libraries (school Waqf libraries).

4. *Rebat* (الاربطة) Waqf libraries (mentioned previously).

5. *Kanghat* (الخانقاهات) Waqf libraries (mentioned previously).

6. *Maristanat* (مارستانات) Waqf libraries (mentioned previously).

7. *Al-Zawaya* (الزوايا) Waqf libraries for those who leave secular life to live alone and worship God.

8. *Al-Marased* (المراصد) Waqf libraries for the study of astronomy.

9. *Al-Khlwat* (الخلوات) Waqf libraries, which were created by scholars who wished to study in private, away from other people.

10. *Al-Ama* (العامة) Waqf libraries (mentioned previously).

11. *Al-Kasa* (الخاصة) Waqf libraries, which are private Waqf libraries created to benefit the owners' families or specific groups.

12. *Al-Modmaga* (المدمجة) Waqf libraries, which are Waqf libraries that were forced to merge with other libraries.

It is important to explain how the types of Waqf libraries mentioned above came into existence. The identification of the type of a Waqf library will be very often related to the conditions associated with each library, and this leaves space for more new types of Waqf libraries to emerge in the future. For example, if a person donated a library as a Waqf and stated that the library shall serve the public, then this is a public Waqf library. If a person donated a library as a Waqf and stated that the beneficiaries of the library are the donor's family, then this is a family (private) Waqf library.

As Waqf libraries are not famous among the other known types of libraries, it is beneficial to investigate where and how Waqf libraries stand among the other known types of libraries such as academic and school libraries. Reviewing the literature reveals several known types of libraries, which reflect the goals and aims of each library, what kind of users it aims to serve, why it was founded, and the way it is funded and managed. Different studies provide different types of libraries (Al-Suraie, 2001; Bhar et al., 2018; Hansson, 2010; Issa, 2009; Siddiqui, 1995).

In the early days of libraries, users did not have any effect on the managing and collection methods of libraries. As a result of the mass production of printed books, libraries slowly shifted to focus on users instead of being closed and mainly focusing on just collections as the main purpose for their existence (Hansson, 2010). That shift is important, as it could be what resulted later in the emergence of different types of libraries that are identified based on their targeted users, goals, and management. Issa (2009) believes that the reason there are different types of libraries is because it is difficult for one library to serve the needs of all kinds of users. Therefore, the creation of different types of libraries came as a way to satisfy those different needs. Hansson (2010) believes that "traditionally there has always been a difference between types of libraries, which are not only defined in relation to their patrons and users, but also in relation to each other" (p. 12).

Thus, in general, the literature presents the following four main and common types of libraries: (1) public libraries; (2) academic libraries, which can include school, college,

university, research, and scientific libraries; (3) special libraries; and (4) national/government libraries. Each of these types of library can be defined as follows:

Public libraries. Public libraries are publicly funded institutions that aim to serve the general public rather than a specific group, institution, or community (Issa, 2009). Governments view public libraries as vital places for spreading culture and educating people (Helling, 2012). Public libraries exist in almost every country. Examples include the Carnegie Library of Pittsburgh, Mitchell Library in Glasgow, and the King Abdulaziz Public Library in Riyadh.

Academic libraries. Academic libraries are libraries that are attached to educational institutions and aim to provide services to the members of those institutions (Bhar et al., 2018). Academic libraries include school, college, research, and university libraries. Examples of academic libraries include the University of Glasgow Library (Scotland), the University of Pittsburgh Library (United States), and King Abdulaziz University Library (Saudi Arabia).

Special libraries. Special libraries are libraries that aim to serve a specific entity, whether it is a business, a government, or an industry. Therefore, a special library can be seen as a library that is not open to the general public and only serves a specific group. This concept follows the original definition of a library (Semertzaki, 2011). Examples of special libraries include hospital libraries, corporate libraries, and museum libraries.

National/government libraries. National libraries aim to preserve the history and culture of a nation (Aramburo, 2019). Therefore, many national libraries are essential institutions in every country, as they record the nation's literature and cultural heritage often by implementing systems like legal deposit (Borună, 2013). Examples of national libraries include the British Library, the National Library of Scotland, and King Fahad National Library in Riyadh.

The literature in general does not include nor recognise Waqf libraries as a main type of library, or even discuss where Waqf libraries can be placed among the common types of libraries. However, it is difficult to place Waqf libraries under one of the common previously mentioned types of libraries without recognising their uniqueness, as Waqf libraries can exist in various types and forms. Some of these types and forms might fall under the common types of libraries, such as public and academic, but not all will. Therefore, we could have public or

academic Waqf libraries. However, Waqf libraries cannot be limited to just the common types of libraries mentioned in the literature. One of the reasons is that, as mentioned earlier, more than seven types of Waqf libraries, some of those types are unique and cannot be placed under any of the common types of libraries that exist in the literature, for example *Rebat* and *kanghat* (الرباط والخانقاهات) Waqf libraries or *Magaber* and *Terb* (المقابر والترب) Waqf libraries.

Some might think as how the common types of libraries differ from Waqf libraries. For example, there are public libraries and public Waqf libraries, so how do they differ? Here, we compare these two types as a general example of how a Waqf library differs from a non-Waqf library even in the same sector.

Normal public libraries have different main aims and goals to deliver to communities; they are known as a social gateway for people of different ages, backgrounds, levels of education and so on. They have existed for a long time, and as Brophy (2001) describes it, "public libraries have a proud heritage" (p. 26). To understand the difference between a public Waqf library and a normal non-Waqf library, we first have to understand the mechanism of how a public library works; therefore, we consider an example of a public library in the Western world for that purpose.

It is believed that the year 1849 marked the beginning of the development of public libraries in Britain (Brophy, 2001). After this point, public libraries started to open in many different cities in Britain, acquiring funds from the local authorities (Brophy, 2001). By the second half of the 20th century, a general understanding had emerged that public libraries aim to "fullfill three interconnected roles: education, information and entertainment" (Brophy, 2001, p. 26). However, public Waqf libraries are not obligated to serve such roles. The role of the public Waqf library is to be open to the public as it is. It has no obligation to expand, evolve and so on. Rather, the main aim is to protect it so that it will last forever, preserve its original Waqf collection and allow the general public to benefit from it.

Although public libraries are technically funded by governments, communities view themselves as the real owners of public libraries. Appleton, Hall, Duff and Raeside (2018) explained :

> Community ownership of public library services emerged as a key theme in the
> analysis of the focus group data……The dominant view is that a public library is at the
> heart of its community and, as such, is owned by that community. This sense of
> ownership was conveyed in the opinion that aspects of community development
> (p.280)

Therefore , public libraries are funded by governments through their communities from the tax money. This is one of the main differences between public libraries and Waqf public libraries. Waqf public libraries is not owned and funded by communities or governments, public Waqf libraries are owned by God. Therefore people have no saying of what should and shouldn't public Waqf library do and how it should function. Only the conditions that were imposed by the donor at the time of the donation of a public Waqf library along with the general rules for a Waqf, will dictate how the library will work. This leads to another important difference: since normal public libraries are owned and funded by governments and communities, they are exposed and affected by many changes, which may lead to the necessity of imposing some cuts in funding or even closures of these libraries. According to the BBC (as cited in Appleton et al., 2018),

> Between 2010 and 2016 the number of UK public libraries decreased by 14% (BBC,
> 2016). Library closures, and associated cuts to continuing services, have prompted
> strong (and often emotional) responses amongst active and passionate public library
> users, as well as within professional groups such as librarians and authors. (p. 275)

In contrast, when it comes to public Waqf libraries, it is not possible to just close or shut them down; they are owned by God and meant to be functional and protected forever. Neither governments nor communities have the power to close public Waqf libraries (assuming the Waqf library exists in a country where Waqf is enforced and respected).

Waqf libraries represent themselves, and every Waqf library has its own conditions, meaning that the type of Waqf library is determined based on the conditions associated with the library at the time of the donation and the registering of the library as a Waqf. Waqf libraries could also be considered as developed or enhanced versions of a normal library but with strict rules and guidelines that are religiously motivated. Therefore, we believe it is important that Waqf

libraries get recognised as a main types of libraries. However, that does not mean that a Waqf library cannot be a part of a normal non Waqf library like a public or academic non Waqf libraries, giving that those libraries will treat the Waqf collection separately and apply the Waqf laws and the conditions associated with the Waqf collection away from the other rules and guidelines that are applied within the main non Waqf library. On visiting Waqf libraries in Mecca and Medina it was found that academic libraries held different Waqf libraries within their premises, and they treat them differently in comparison to their normal academic collection (see the findings chapter for more information).

In conclusion, physical Waqf libraries have existed for a long time throughout the Islamic world and within Islamic communities. Islamic scholarship has confirmed that physical libraries can be registered as a Waqf and should therefore be managed in the same way as all other Waqf-protected physical assets throughout the centuries. Despite the fixed nature of Waqf law, it is constantly adapting as societies progress and as the cultural artefacts they produce continue to evolve. In particular, the proceeding discussion begins a conversation within the Islamic community to determine how emerging standards of digitisation and newly created digital cultural artefacts should be managed within the context of Waqf. Before dealing with these larger issues, however, it is important to outline those emerging standards of digital curation as they are commonly applied within libraries.

Section Two: Digital libraries

Introduction

The emergence and democratisation of digital technologies have led to a transformation in the modern library. As institutions have rushed to identify and embrace digital practices as 'digital libraries', countless definitions and qualities have been advanced to codify the key characteristics of a digital library. It is not the purpose of the present discussion to settle these lingering disagreements. Rather, in addressing those points of understanding related to digital libraries, it will be possible to identify the areas where contradictions to the current rules and guidelines of Waqf may arise. This will also allow identification of critical questions that might arise as a result of the complexity of the rules of Waqf. This analysis will then move forward and investigate how Waqf rules can be applied in a digital atmosphere, specifically digital libraries, supporting the main goal of the thesis, which is to explore and introduce the new concept of a digital Waqf library.

Therefore, this section aims to provide understanding, and present the meaning of, a digital library along with digital library types, the reasons for going digital, the core minimal elements of a digital library, and key challenges. It begins by briefly investigating the emergence of the concept of a digital library. The different definitions of a digital library found in the literature will be reviewed to ultimately provide what is meant by a digital library in this thesis. This definition, and identification of the core minimal elements, will provide the structure for my analysis of the libraries in Mecca and Medina.

Emergence and definition

Emergence

As mentioned in the previous section, people have been trying to find better ways to store and retrieve information for many centuries, from clay tablets to paper. As libraries have grown and matured, librarians have continued the mission to take advantage of any development that could be used for storing and retrieving information. Their efforts have expanded with the

arrival of the digital age and new innovations of technology. Johnson and Magusin (2005) explain the main mission of a library and how libraries use technology:

> Libraries have traditionally represented a culture of the book and call up for many the tactile associations of pages, bindings, and dust jackets. Libraries have been places of quiet reflection, inquiry, and sustained reading. They not only are timeless and comforting in a too-hectic world but also have preserved the human record through the ages. At the same time, libraries have entered the information superhighway and have come to represent digital culture as much as book culture. (p. 3)

The digital age is a result of what can be referred to as the digital revolution. The digital revolution can be explained as the transformation from a mechanical lifestyle to a numerical style (Orzeata, 2014). From a technical standpoint, the word *digital* simply refers to the ones and zeros that encode the data stored and processed in computers (Johnson & Magusin, 2005).

One of the main factors that encouraged the digital revolution is electric power. As Lamarre (1998) explains, "The electric power industry is integrally involved in the digital revolution in a number of ways. At the most fundamental level, electricity is the fuel of the information age" (p. 2). This digital revolution has made a deep impact on human lifestyles. Art, music, telecommunications, distribution, and education were all impacted by the digital revolution. This revolution has changed the way we look at things and stimulated people to be more creative, resulting in computers, smart phones, smart TVs, virtual education hubs, and digital libraries. Therefore, the advances in technology helped create a digital version of a library. Some scholars can be considered pioneers in the field of digital libraries, ones who anticipated the fast emergence of what can be called a digital library as an entity that is related to, but separate from, traditional libraries. Even though some of these pioneers might not have used the term 'digital library' at the time, they anticipated some of the criteria of the current digital library. Some of those scholars include Otlet (1934), Wells (1938), Bush (1945) and Licklider (1965). This indicates that the beginning of the digital transformation of libraries was not a surprise, as many scholars anticipated the change. However, many subsequent scholars referred to Bush (1945) as one of the important pioneers who anticipated the emergence of the

digital library (Xie & Matusiak, 2016; Calhoun, 2014; Hansson, 2010; Johnson & Magusin 2005; Arms, 2000). Vannevar Bush (1945) published an article titled 'As We May Think' (Figure 2) in which he tried to illustrate his thoughts for the future. In one section of this article, he discussed an idea similar to the digital libraries of today:

> Consider a future device for individual use which is a sort of mechanized private file and library. It needs a name, and to coin one at random, "memex" will do. A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory. (Bush, 1945, p. 121)

Even though Bush (1945) did not call this device a digital library, he can be credited as one of the first to start laying the foundations for digital libraries. He imagined some of the elements of a digital library in his imaginary device which he called a memex; a device that is fast and efficient, stores a vast amount of information, and provides access to it.

Figure 2. First page of the article. Bush, V. (1945). As we may think. *The Atlantic Monthly*, 176, pp. 101–108.

Closer to the time of the emergence of the internet, a study by Kahn and Cerf (1988) called 'The Digital Library Project' was among the first to present and use the concept of digital libraries, as can be noted from their mention that "This volume describes an open architecture for an important new kind of national information infrastructure, which we call the Digital Library System (DLS)" (p. 3). They explained their understanding of the digital library concept as follows:

> The Digital Library System design allows individual organizations to include their own material in the Digital Library System or to take advantage of network-based information and services offered by others. It includes data that may be internal to a given organization and that which crosses organizational boundaries. This document presents a plan to develop such a system on an experimental basis with the cooperation of the research community. Finally, it addresses the application of a Digital Library System to meet a wide variety of user needs. (p. 5).

Several scholars (Bearman, 2007; Bultmann et al., 2006; Candela et al., 2011; Worrall, 2014) mark the 1990s as the beginning of the emergence of the term digital library. This is not surprising as the 1990s is when the Internet started to emerge. After the development of the Internet, personal computers became affordable. Since then, there has been a noticeable rise in the number of people using personal computers in different settings including the workplace, educational institutions, and residences (Johnson & Magusin, 2005).

The 1990s is when many studies on the concept and the development of digital libraries were published (Candela et al., 2011). An example of those studies is one by Lowry (1991), in which he published an article called 'Information Technologies and the Transformation of Libraries and Librarianship' (p. 109). He claimed that he only wrote the article as a response to the emergence of 'smart machines.' Lowry (1991) predicted the effects of the new

emerging technology on the future of library science, and he anticipated some of the new library tools that are now in use, including the digital book, which he called the 'smart book' (p. 110). Lowry (1991) was one of the first to speculate on the results of mixing technology with libraries and anticipated how technologies would affect libraries in the future. Hence, scholars were able to anticipate the emergence and the possible existence of the concept of digital libraries in the future. However, there were not yet clear definitions of a digital library, which will be discussed in the following section.

Defining a Digital Library

Table 1

DEFINITIONS OF A DIGITAL LIBRARY.

Different definitions of a digital library	
Scholar	Definition
Lesk (2005)	"A collection of information that is both digitized and organized … you should be able to get stuff into it and out of it; it must have content (whether new materials prepared digitally or old digitized materials); content must be stored and retrieved; and a retrieval system allows users to find content." (p. 1).
Cleveland (1998)	"Digital libraries are libraries with the same purposes, functions, and goals as traditional libraries; collection development and management, subject analysis, index creation, provision of access, reference work, and preservation." (p. 2).
Arms (2000)	"a managed collection of information, with associated services, where the information is stored in digital formats and accessible over a network" (p. 2).
Kani-Zabihi, Ghinea, and Chen (2006)	"a source of information, in different formats, e.g. text, video or audio, and such information is stored digitally" (p. 396).
Candela et al. (2007)	"a possibly virtual organization that comprehensively collects, manages, and preserves for the long term rich digital content, and offers to its user communities specialized functionality on that content, of measurable quality and according to codified policies" (p. 2).
Trivedi (2010)	"A library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. The content may be stored locally or accessed remotely" (p. 1).
Alexe (2010)	"an organized collection of documents and associated services, where information is stored in digital formats and accessible using a network" (p. 23).
Calhoun (2014)	"Systems and services, often openly available, that (a) support the advancement of knowledge, (b) contain managed collections of digital content intended to serve the needs of defined communities, (c) often uses an architecture that first emerged in the computer and information science library." (p. 18).

Different terms for a digital library have emerged with the concept including virtual library, automated library, hybrid library, and library without walls (Alexe, 2010, Cleveland, 1998;). However, the term digital library is the one most widely accepted and used (Cleveland, 1998), so it is used in this thesis.

As illustrated by the sample of definitions for digital libraries found in Table 1, Lynch's (2005, para. 1) argument continues to ring true, "The field of digital libraries has always been poorly-defined." Lagoze et al. (2005) stated "In the age of Google, what is a digital library anymore, anyway? … digital libraries need to distinguish themselves from web search engines" (sec. 6). Gonçalves, Fox, and Watson (2008) noted that "Digital libraries (DLs) have eluded definitional consensus and lack agreement on common theories" (p. 91). Calhoun (2014) explains "the digital library literature contains an enormous amount about how to define digital libraries" (p. 19). Xie and Matusiak (2016) explained that "Digital libraries are relatively new phenomena, and, like many new and emergent information systems, they face challenges of discovery, acceptance, and utilization" (p. 3). The continuous changes in the definition of a digital library were noticed by Griffin (1998), who recognised the importance of allowing the definition of digital libraries to evolve, contending that "The meaning of 'digital libraries' continues to evolve as technology advances and, more importantly, as people explore new possibilities offered by open, dynamic, globally distributed information environments" (p. 91).

This non-agreement on the definition of a digital library has many causes, which are mentioned in several studies (Griffin, 1998; Cleveland, 1998; Monopoli, 2005; Kani-Zabihi, Ghinea, & Chen, 2006; Candela et al., 2007) and can be summarised as follows:

o   There are different groups associated with digital libraries and each one of them looks at digital libraries from a different angle. For example, researchers in the field of computer science mainly focus on technical issues regarding the network and development of technologies, while researchers in the field of librarianship are more concerned about the acquisition, management, storage, and retrieval of library contents, along with a focus on user services.

o   Digital libraries are a meeting point of many disciplines and fields, including but not limited to, information retrieval, library sciences, information systems, artificial intelligence, human-computer interaction, and digital curation. This leads to the variety of definitions of the concept of digital libraries based on people's backgrounds.

o   The continuous development of technology, which provides opportunities to develop the current methods and services used in digital libraries.

It is noticeable that definitions from researchers in humanities and librarianship are more concerned with the content of the library and the library itself as an organisation. However, if we define the concept of digital libraries from a computer science point of view, there is a noticeable difference. Gonçalves & Fox (2004), holding a computer science point of view, believe the following:

> Digital libraries may be extremely complex information systems …. Such complexity is due to the inherently interdisciplinary nature of this kind of system. Digital libraries integrate findings from disciplines such as hypertext, information retrieval, multimedia services, database management, and human-computer interaction. (p. 1).

Borgman (1999) also believed that there are two different approaches to how the concept of digital libraries can be defined. She claimed that researchers in general will look at "digital libraries as content collected on behalf of user communities," while librarians will see "digital libraries as institutions or services" (Borgman, 1999, p. 229). Ultimately, Xie & Matusiak, (2016) stress that "the proliferation of digital library definitions makes a comprehensive review very difficult" (p. 4).

Despite the various definitions of digital libraries, there is a common emphasis on the existence of an organised collection, the provision of access, and the association with technology. A digital library contains digital content and uses technology to provide access. It can be understood that digital libraries are somehow upholding the standards of a traditional library, but different in their physical form and the content and services they provide.

Digital libraries can therefore be seen in two different ways. One is as an extended service of a traditional library, as can be seen in definitions where digital libraries are viewed as organised, developed types of a collection in a digital format (Arms, 2000; Cleveland, 1998; Lesk, 2005). The other is as an organisation or system (Calhoun, 2014; Candela et al., 2007), which means a digital library can exist as an independent entity and does not have to be an extended service of a traditional library, while it performs the same duties as a traditional library and meets the same criteria as a traditional library. In early definitions, digital libraries were considered extended services, as in the March 1994 Digital Library Workshop, which defined a digital library as follows:

> A digital library is an assemblage of digital computing, storage, and communications machinery together with the content and software needed to reproduce, emulate, and extend the services provided by conventional libraries based on paper and other material means of collecting, cataloguing, finding, and disseminating information. (As cited in Chowdhury & Chowdhury, 1999, p. 411).

The International Federation of Library Associations and Institutions (IFLA, 2010) mentioned the following about digital libraries:

> A digital library forms an integral part of the services of a library, applying new technology to provide access to digital collections. Within a digital library collections are created, managed, and made accessible in such a way that they are readily and economically available for use by a defined community or set of communities. (p. 1).

Those two definitions also illustrate the understanding that a digital library is somehow an extension of a traditional library. Xie and Matusiak (2016) see the concept of a digital library as additional services that a library provides. They mention that "Digital libraries are not seen as new or unique phenomena but rather as extensions of traditional libraries delivering new

types of information resources and offering new user services" (Xie and Matusiak, 2016, p. 5). However, that understanding does not mean that a digital library has to meet only one of those definitions, an extended service of a traditional library or an independent digital institution, rather they can be both. As Borgman (1999) mentioned, "librarians focus on digital libraries as institutions or services" (p. 229).

Another important issue might arise from the definitions of a digital library. Considering the earlier definitions stating that a digital library is an organised source of information in digital format that provides access, are databases, such as those provided by EBSCO and ProQuest, considered as digital libraries? They are both important sources of knowledge and information with collections comparable to a digital library (Seadle & Greifeneder, 2007).

Looking at different databases as digital libraries, or calling them digital libraries, might create confusion. This issue is not new, as it was identified by Borgman (1999) who mentioned this problem due to the increase in these websites. She said that "some of these databases and web sites identify themselves as digital libraries" (Borgman, 1999, p. 236). Moreover, later scholars continued to illustrate this confusion. Xie and Matusiak (2016) mentioned that there are "some concerns that the combination of 'digital' and 'libraries' was somewhat misleading and blurred the distinction between collections of network-accessible electronic resources and libraries as institutions" (p. 3).

Considering the range of definitions outlined here, this thesis defines a digital library as *an organisation that exists physically or virtually (online), which holds, stores, and manages an organised collection of digital content accessible using computers by the targeted users/community, whether remotely or in-house*. The rationale of this definition is related to today's status of libraries and technology. When we determine whether an organisation exists physically or online, we reflect on today's reality. There are digital libraries that exist physically and provide access to digital content and digital services for users both online and on-site, such as the British Library and the Library of Congress. There are other digital libraries that do not have a physical location (for users) but may have dedicated offices for their employees who are responsible for operating their online websites and providing online services to their users. These digital libraries exist mainly virtually and provide access and

support through online channels such as websites, emails, live chat, and social media. Examples includes the HathiTrust Digital Library and the Digital Public Library of America.

Core/minimal elements

Beyond defining a 'digital library', there have been many attempts to identify the characteristics and functions of a digital library. The resulting frameworks were developed "in response to the difficulty of describing the complexity of these systems by a single definition" (Xie & Matusiak, 2016, p. 3). Having a framework for any new concept is an important step for clearly understanding and testing it. Rowlands and Bawden (1999) explained that "models and frameworks are more important in the real world than is sometimes acknowledged, since they shape the way we look at reality and frame the language we use to describe it" (p. 193).

This section aims to introduce the core/minimal elements for recognising a digital library. The reason this is important is that to meet the goal of this thesis, to introduce a framework to evaluate and define a digital Waqf library, we need to have a complete picture of what is meant by a digital library. This will allow us to investigate how we can combine that with the concept of Waqf to introduce the concept of a digital Waqf library. Therefore, this section tries to establish a framework to assess the digital progress currently being made by existing Waqf libraries. This section begins by reviewing different attempts to create frameworks of digital libraries, which contain the providing of a set of core/minimal elements to recognise a digital library, followed by a summary section where the understanding of the case is provided.

It is difficult to find one framework that will work for all types of libraries. While there have been different attempts to create frameworks for digital libraries, specialists and scholars in the field have been unable to settle on a single approach. Gonçalves et al. (2008) said that "very little has been done to understand the underlying fundamental concepts, their relationships, and the axiomatic rules that govern the DL domain, or in other words, to develop a theory of DLs [digital libraries] " (p. 91).

Scholars have been advocating for specialists to work on an accepted framework for a digital library. This advocacy demonstrates the importance of having an accepted framework for

digital libraries in general, and especially for a digital Waqf library, which is more complicated and has not yet been introduced. According to Gonçalves et al. (2008):

> The need for such a theory has long been advocated. The absence of an accepted theory makes comparison of different DL architectures and systems extremely difficult, promotes ad-hoc development, and impedes interoperability. Its existence might enhance our ability to communicate about and identify new research areas (p. 91).

Different attempts have been made to create frameworks that contain a set of core/minimal elements for recognising a digital library, such as Rowlands and Bawden (1999), Soergel, 2002, Gonçalves, Fox, Watson, and Kipp (2004), Candela et al. (2007), Baruzzo et al., 2009, Candela et al. (2011). Collectively, these frameworks help to provide an understanding of the core elements of digital libraries.

Rowlands and Bawden (1999) produced one of the early models that was developed based on an even earlier model. They aimed to suggest a framework that would help provide a better understanding of the concept of a digital library. Rowlands and Bawden's (1999) model was developed based on an older model by Yates (1989). The Yates (1989) model proposed three simple important criteria to better understand both a traditional library and a digital library: Documents, Technology, and Work (Rowlands & Bawden, 1999). These three simple components form a basic understanding of what a digital library could be. A library can hold and provide access to a collection of stored documents. In this era, this collection could be represented in a physical collection, a digital collection or both.

Technology is the second component of this model. In this case, technology maintains and provides access to the stored documents. This can be achieved by creating databases and developing searching tools. Work is the third component of the model that should be supported by a traditional library and a digital library. This refers to supporting the libraries' users and employees by providing the necessary services to facilitate the work of each group (Rowlands & Bawden, 1999).

Rowlands and Bawden (1999) further developed the three components of the Yates (1989) model by renaming them (see Figure 3). They believed doing so would provide a clearer understanding of the concept.

Yates (1989) Model	Rowlands and Bawden (1999) Model
Documents ⟶	Informational
Technology ⟶	System
Work ⟶	Social

Figure 3. The renaming of the Yates (1989) digital libraries' components by Rowlands and Bawden (1999).

Rowlands and Bawden (1999) claimed that renaming the components of the Yates model would help provide a useable definition of a digital library and identify the components of that type of digital. To better understand this proposed framework, it is important to present a brief overview of the details of each of the renamed domains. Rowlands and Bawden (1999) explained the meaning of each element as follows: The *Informational* Domain is concerned with the discovery and organisation of knowledge, such as metadata. The *Social* Domain is concerned with human and organisational factors; it also addresses managing the policies and laws that impact a library. The *System* Domain is concerned with human and computer interaction; it also focuses on the discovery and organisation of knowledge and how technology can have an impact on the transfer of information (Rowlands and Bawden, 1999).

While Rowlands and Bawden (1999) adapted an old model of digital libraries, after reviewing the earlier definitions of digital libraries, the Yates model (created in 1989) remains a valid representation of the basic elements of a digital library. The IFLA (2010) noted that:

> A digital library forms an integral part of the services of a library, applying new technology to provide access to digital collections. Within a digital library collections are created, managed and made accessible in such a way that they are readily and economically available for use by a defined community or set of communities (pp. 1–2).

Here, we can see that the documents component in the Yates (1989) model is equivalent to the collection or the digital collection of a library. The second component of the Yates model, technology, is mentioned in the IFLA (2010) definition in reference to applying new technology to use the digital collection. In the Yates model, work is seen as the ability to use technology to help the libraries' employees, patrons and researchers do their work. The IFLA (2010) definition states that the digital collection should serve a community or a set of communities.

The Yates (1989) model has been adopted many times to develop a new model/framework for digital libraries. As previously noted, Rowlands and Bawden (1999) adapted this framework, and it was also modified and used by Baruzzo, Casoto, Dattolo, and Tasso (2009) in their study entitled, 'A Conceptual Model for Digital Libraries Evolution'. See Figure 4.
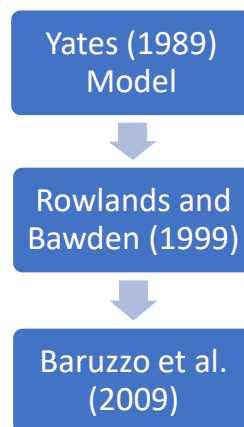
Figure 4. The development of the adaptions of the Yates model.

The process of adopting frameworks to develop new ones demonstrates that changes in the understanding of what a digital library is have been occurring for a long time. This is due to the continuous development of technology that affects the kind of services that can be provided by libraries. It also affects copyright laws and policies; thus, a continuous review of what constitutes a digital library is needed.

Another framework is the 5S model by Gonçalves et al. (2004). According to Gonçalves et al. (2004), the complexity of digital libraries demands a formal attempt to identify a foundation

for the issue. They suggested the following five fundamental concepts as a framework: streams, structures, spaces, scenarios and societies. Moreover, Gonçalves et al. (2004) illustrated the difficulty of creating a digital library framework because of the lack of one definition for a digital library, and the continuous evolution of that definition. Gonçalves et al. (2004) claimed that "there is no consensual definition of a digital library. This makes the task of formally defining this kind of application and its components extremely difficult" (p. 291).

Gonçalves et al. (2004) proposed that the five components (the 5S) will help define the concept of a digital library more efficiently. They also claimed that the 5S are a "framework for providing theoretical and practical unification of digital libraries. These formalisms are important for making sense of complexity and can ultimately serve as an aid for designers, implementers, and evaluators of digital libraries" (p. 272). To better understand the 5S framework, it is important to briefly define each of the 5S components, as defined by Gonçalves et al. (2004):

Streams: This component refers to how different types of content can be acquired; the content can be static, such as texts, or dynamic, such as videos.

Structures: This component refers to the process of efficiently organising the information within the digital library.

Spaces: There is a generality in this component, so it is seen as a mathematical construct. However, it refers to a set of collections or objects combined with operations.

Scenarios: This component refers to the services provided by a digital library; it is also used to identify what type of services users want.

Societies: This component refers to the different communities that could be served by digital libraries, such as patrons, authors, publishers, editors, developers and the library staff.

Gonçalves et al. (2004) presented the 5S model as a foundation of digital libraries. However, reading through the detailed explanation they provided, the framework might be somewhat vague and difficult to interpret for people who do not have a sufficient computer science and

coding background. Moreover, the study sometimes provided more than one definition, which makes it difficult to use and apply the framework.

Gonçalves et al. (2004) later provided complicated mechanical formulae as an extension of the definitions and as a way to use the 5S model, but these formulae might not be suitable for librarians, or people interested in the field, who are looking for a theoretical framework. However, they could satisfy people with a solid background in computer science and mathematics (Weiss, 2013). Therefore, Weiss (2013) believed that the 5S framework might be "too vague to apply as a serious conceptual framework for a digital library" (p. 840).

Within the complexities and mathematical explanations presented by Gonçalves et al. (2004), their 5S framework identifies six components that are found in all digital libraries (Figure 5). According to Gonçalves et al. (2004), not meeting these six minimal components will disqualify a library from being a digital library. Gonçalves et al. (2004) noted that each of the six components can be placed under one or more of the 5S components. The six minimal components are: Digital objects, Metadata specification, Collection, Catalogue, Repository, and Services.

Based on these minimal components, Gonçalves et al. (2004) believed that a library should have a collection of information that could be managed, and it should provide services to the targeted communities so people can access information in the digital form. Gonçalves et al. (2004) also referred to digital objects as textual or multimedia content that could provide videos, images, etc. in terms of metadata. They viewed this as information about a digital object, such as a catalogue. Moreover, a digital library should provide basic minimal services, such as indexing, searching and browsing (Gonçalves et al., 2004).
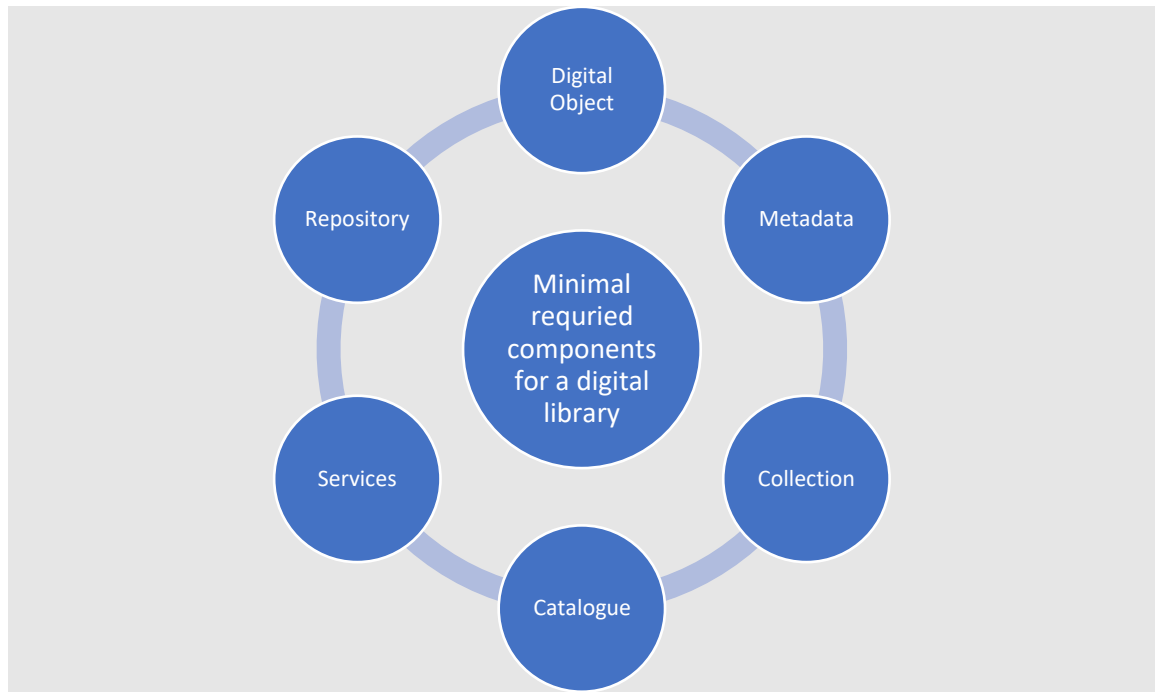
Figure 5. The minimal required components of a digital library based on the 5S framework.

Another framework that presented a set of core/minimal elements for recognising a digital library is the DELOS Manifesto model by Candela et al. (2007). The DELOS Manifesto is a project developed by members of the Delos Network of Excellence in digital libraries, which aims to provide a conceptual framework for a digital library. The group is funded partially by the European Union. The study by Candela et al. (2007) is entitled: 'The Digital Library Manifesto'.

The study explained the reason for the variety of definitions for a digital library. Candela et al. (2007) believed that the concept of a digital library could be a meeting point for many different disciplines, including, but not limited to, library science, digital curation, human-computer interaction, the World Wide Web, etc. The differences in the backgrounds of these disciplines led to the increase in the number of different definitions for a digital library; each definition was influenced by the perspective of a specific discipline (Candela et al., 2007).

The DELOS Manifesto aimed to initiate a set of principles to determine the core concepts that might be involved in formalising the concept of a digital library (Candela et al., 2007). The

DELOS study introduced the key aspects of the digital library framework. It began by providing and examining three types of systems (see Figure 6):

Digital Library: a digital library could be a virtual organisation that acquires, preserves and manages digital content for a long period of time (Candela et al., 2007). Moreover, it provides quality content to its community by adhering to its policies (Candela et al., 2007).

Digital Library System (DLS): a DLS is a software system that provides and facilitates all the operations required by a digital library, and it facilitates user interaction with the digital library (Candela et al., 2007).

Digital Library Management System (DLMS): a DLMS is a general software system that aims to provide an appropriate infrastructure to produce and administer a digital library and to offer more advanced functionality (Candela et al., 2007).
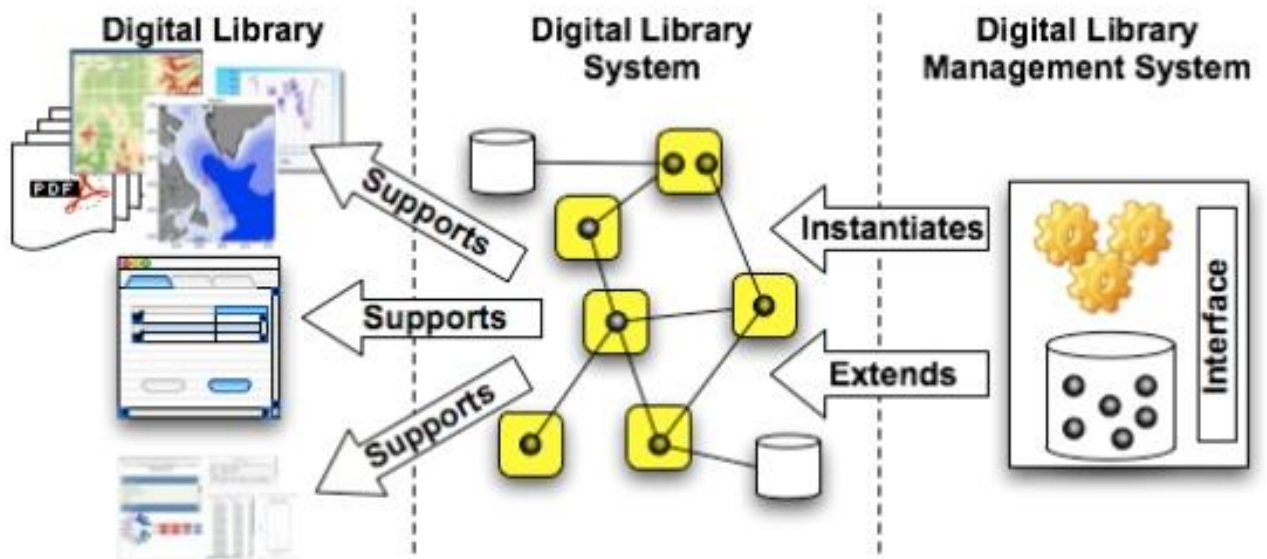
Figure 6. The DELOS three-tier framework (Candela et al., 2007).

According to Candela et al. (2007), there are a limited number of core concepts that could be defined by every system, and these concepts could be the main elements of every digital library. Moreover, those core concepts could be used as a starting point for any researcher, designer or developer who would like to access a digital library (Candela et al., 2007).

The DELOS framework consists of six core concepts, as shown in Figure 7, which shape the previous three systems. These six core concepts can be considered to be the minimal criteria for recognising a digital library, which is similar to the approach used in the 5S framework. The six core key concepts are: content, user, functionality, quality, policy, and architecture. In the DELOS framework, each of these elements are explained as follows:

Content: the content concept includes all different kinds of information and data that are under the control and management of a digital library that are accessible to its users (Candela et al., 2007). Content contains different sets of information objects, which are presented as a collection after they are properly organised (Candela et al., 2007). This concept can be seen as a dome in which all different kinds of information objects are assembled, including primary objects, metadata, etc., which are collected, managed and delivered by the digital library (Candela et al., 2007).

User: the core concept of user recognises all the various qualified elements that have the right to interact with the digital library, whether these elements are machines or humans (Candela et al., 2007). One of the jobs of a digital library is to facilitate the connection between users and information and provide the support users need to efficiently use information (Candela et al., 2007).

Functionality: the concept of functionality includes the different kinds of services that could be provided to digital library users (Candela et al., 2007). Although expectations are always high when it comes to the kind of services that can be provided by digital libraries, some minimal functions should be provided, including information object registration, searching and browsing (Candela et al., 2007).

Quality: the concept of quality refers to the variables that can be used to evaluate the content and other elements of a digital library (Candela et al., 2007). This concept can be used to evaluate a specific service or object, not just the overall content and services (Candela et al., 2007). The evaluation of these variables can be objective (automatically measured) or subjective (methods used to evaluate users' needs, such as focus groups) (Candela et al., 2007).

Policy: the concept of policy refers to all the rules, conditions and regulations that organise and control the interactions (real or virtual) between the users and the digital library (Candela et al., 2007).

Architecture: the concept of architecture refers to the main body of the digital library system; it works to guide the different types of content and services provided by a digital library into the system's software and hardware components (Candela et al., 2007).

Figure 7. The main elements of a digital library using the DELOS framework.

Another framework is the Digital Library Reference Model, which was developed in 2011 by the DL.org Consortium and funded by the European Commission. However, more importantly, the model was created using the DELOS for digital library manifesto (reviewed earlier), and it relied on that model and maintained its structure. However, Candela et al. (2011) mentioned that the Digital Library Reference Model maintains, consolidates and enhances some of the components of the DELOS model, because some revisions were made to that model.

Initially, Candela et al. (2011) adapted the same framework used in the DELOS model: Digital Library, Digital Library System (DLS), Digital Library Management System (DLMS). However, Candela et al. (2011) made a slight change to the main core concepts of a digital library. The previous DELOS model included six core concepts as minimal criteria for a digital library (content, user, quality, policy, functionality and architecture). Candela et al. (2011) retained the same six core concepts but added one more – organisation. Thus, it identified seven minimal core concepts of a digital library (Figure 8).
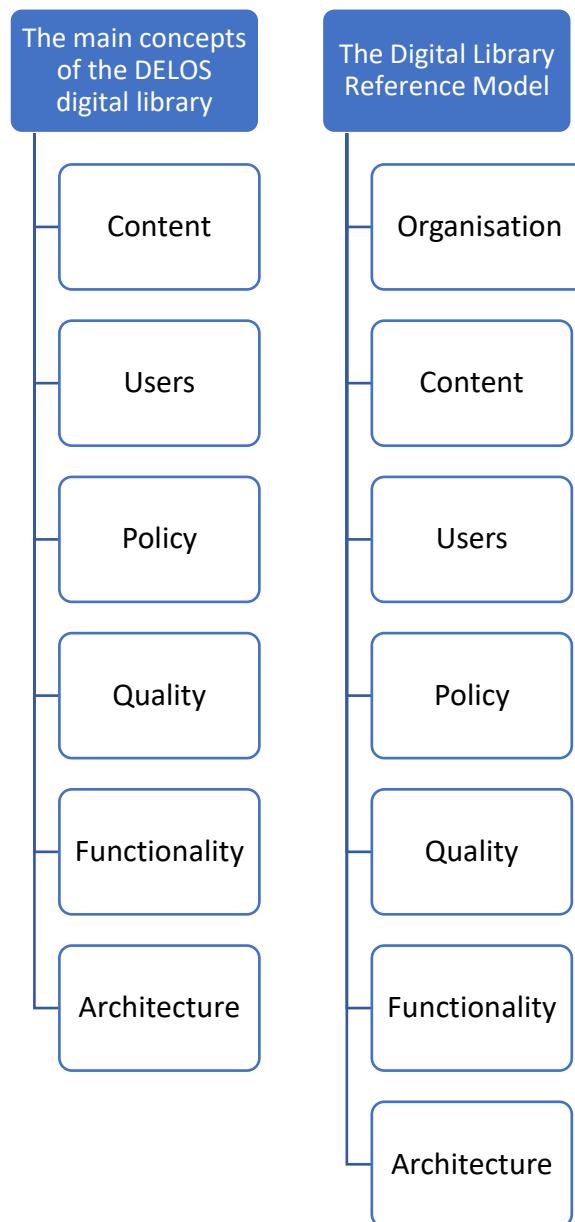
Figure 8. The main/core elements of a digital library as shown in the DELOS model vs the Digital Library Reference Model.

Candela et al. (2011) noted that a digital library should be considered to be an organisation. However, that does not mean that a digital library that is viewed as an organisation is different from library institutions that have decided to create a digital library as a way to develop their services. Hence, a digital library organisation can be established by any existing institution that has the power and authority to define all the other services of the organisation (Candela et al., 2011).

In summary, different studies have attempted to also propose other elements to include when developing a digital library framework (Baruzzo et al., 2009; Soergel, 2002). In the previous section, four different attempts to create a framework that would define the concept of a digital library were reviewed. These components differ from one study to another, which, as previously mentioned, is the result of the complexity of understanding and defining what a digital library is. Each definition is based on the definer's own background and knowledge. However, the aim of reviewing the different frameworks is to help identify the minimum elements that are needed to recognise a digital library. These can be used later in the thesis with the Waqf components to develop a definition and a framework for the digital Waqf library.

After reviewing the previous frameworks, it is possible to see that each was created to address the complexity of understanding a digital library, and that different definitions are used to define a digital library. Hence, each framework attempted to create a common ground to make it easier to understand what constitutes a digital library. However, since the concept of what constitutes a digital library is continuously evolving, it is expected that the frameworks and definitions of a digital library will also continue to evolve. The minimum core elements of a digital library that this thesis aims to provide will be based on the previous frameworks and the previously mentioned definitions.

Thus, the previous frameworks, focusing on the theoretical minimal core elements that form a digital library based on each framework's point of view (Table 2) will be compared.

Table 2

Comparison of the Minimal Core Components of a Digital Library as Shown in the Different Frameworks.

Name of the Framework	Minimal Core Elements of a Digital Library	Notes
Rowlands and Bawden (1999). Digital Libraries: A Conceptual Framework.	• Informational • System • Social	Informational: the collection and the metadata. System: the various technologies used to perform all the different services offered by a digital library. Social: users and community and collaboration.
Gonçalves et al. (2004). Streams, Structures, Spaces, Scenarios, Societies (5S): A Formal Model for Digital Libraries.	• Digital objects • Metadata specification • Collection • Catalogue • Repository • Services	
Candela et al. (2007). Setting the Foundations of Digital Libraries: The DELOS Manifesto.	• Content • User • Functionality • Quality • Policy • Architecture	
Candela et al. (2011). The Digital Library Reference Model.	• Organisation • Content • User • Functionality • Quality • Policy • Architecture	This framework adopted the six elements mentioned in the DELOS framework and added one more element: organisation.

Is it necessary for a digital library to have all of these digital service capabilities to be called a digital library? What are the minimum criteria that qualify a library to be called a digital library? Does a digital library have to have a fully digitised collection and provide remote access?

There are no single answers to these questions. From the previous review of the frameworks and the information presented in Table 2, the common elements of a digital library were extracted to show that a digital library should have these features:

- Be an organisation.
- Have a digital collection (whether digitised or born-digital) and a repository.
- Use technology (software and hardware) to manage, store, retrieve, and index digital content of the library.
- Have policies to work with.
- Provide services to its users/community (including access, minding libraries' policies).

Therefore, the list of minimal components to recognise a digital library are as follows:
1- Organisation.
2- Digital Content.
3- Technology.
4- Policy.
5- Users.

There could be some other components as mentioned in the previous reviewed frameworks, but some of those components can be considered features of a developed version of a digital library and the absence of them should not disqualify a library from being defined as a digital library. An example is the *quality* component in the Candela et al. (2007) framework in which the definition of this element is the quality of the content of a digital library. In the case of Waqf libraries (unlike other types of libraries) the aim is not to acquire new collections, on the contrary, the aim is to keep and preserve the original collection that was donated as a Waqf

forever. Therefore, it is not possible to consider evaluating the quality of the collection in a Waqf library as core element. The meaning of each element is explained below:

Organisation

A digital library is an organisation, one that mainly exists physically and provides digital services through meeting the other four criteria on this list, or an organisation that exists mainly online or in the virtual world and also meets the other four criteria on this list. An example of a library that mainly exists physically is the British Library, whereas the HathiTrust digital library is an example of a library that mainly exists online.

Digital content

The digital content can exist in two main different forms: the digitised collection of a library and born-digital materials. In Waqf libraries the content must be owned at the time of the donation of a Waqf because you cannot register something as a Waqf that you do not own. In other types of libraries, owned content can be supplemented by providing access through external providers to materials that are not owned by the library. However, this method is considered as an advanced service provided to users, rather than a core feature.

Digitisation

Digitising is generally understood as the process necessary to convert traditional printed material into electronic versions that allow the material to be made available online (Nnenna & Ume, 2015). Hughes (2004) defined digitisation as "the process by which analogue content is converted into a sequence of 1s and 0s and put into a binary code to be readable by a computer" (p. 4). Hughes (2004) summarised the benefits of digitisation as "access, support of preservation activity, collections development, institutional and strategic benefits, and research and education" (p. 9).

Digitising is not just limited to libraries or the public sector; many commercial publishers and corporations also digitise their materials, one of which is Google (Bultmann et al., 2006). The involvement of the commercial sector could also be beneficial for digital libraries, as mentioned before. In most cases, digital libraries aim to collaborate and share content. Presently, there are several different types of digitisation. There is the standard individual

digitisation process, as per libraries, large-scale digitisation, and mass digitisation (Coyle, 2006).

Standard individual digitisation involves a careful selection of the materials to be digitised. This selection is usually motivated by the desire to preserve materials or provide broader access (Coyle, 2006). This can be observed in the variety of digitisation projects occurring in academic libraries as they try to digitise their own collections, either to keep fragile, rare books and manuscripts from harm, to provide easier access for their targeted audience, or both.

Large-scale digitisation is a digitisation project that aims to digitise a very large number of books and materials. That being said, the aim is usually to specifically select what to digitise, not to just digitise randomly. A good example of that is JSTOR, which aims to digitise journals (Coyle, 2006).

On the other hand, a mass digitisation project does not have specific criteria for the type of books or materials to be digitised. Instead, these projects aim to "digitise everything, or in this case, every book ever printed" (Coyle, 2006, p. 1). A famous example of mass digitisation is the Google Books project. Google Books aims to digitise everything possible, though their intention is not to provide access to full text reading materials, but to build a global index that can help people look for and search books (Coyle, 2006).

As stated by Green (2008), "digitization on a mass scale will make large quantities of out-of-copyright printed material accessible free from home or workplace" (p. 6). Mass digitisation could also provide a large catalogue and index for other protected materials, which would be useful for researchers. Digitisation can also help keep our cultural heritage safe for as long as possible and will help the process of researching historical objects, including digitised rare manuscripts (Rikowski, 2011).

Born-digital materials
Born-digital materials have become an important part of digital libraries' collections. Pandey and Misra (2014) defined the term born digital as meaning "originally produced in machine-readable digital form (e-books, e-journals, online databases, digital photographs, websites,

multimedia, etc.)" (p. 136). Terras (2011) defined the term 'born digital' as an object "created by computational technologies and never existing in analogue format" (p. 3). Nnenna and Ume (2015) also refer to born-digital content as "information resources, which are born digital, having been created by computational technologies and never existing in analogue format" (p. 34).

Digital libraries may own or acquire born-digital materials, such as digital books or articles from a public or private publisher. However, sometimes when a library does not buy a digital book or article, digital libraries can provide a service to connect users to an external provider who is able to provide the material they are looking for. Many academic libraries now provide this service, giving access and the ability to search for and acquire items through other providers like EBSCO or ProQuest. Even though the library may not ever own the item, the library may be paying subscription fee.

Technology

In this section, the use of technology (software and hardware) means to manage, store, retrieve, and index the digital content of a library. This reflects the basic mission of a digital library, which is to store and retrieve information but through digital methods rather than traditional. In this element it is not meant that it is mandatory to provide users access to technological hardware and software, these could exist to be used by library employees and management to facilitate serving their targeted users by providing them with digital surrogates of their collection through email, USB, or any other method. However, providing on-site computers and remote access to users is an extended service, which is optional

Policy

This section refers to the policy that shapes how a library should be managed and provide its services including the mission and goals of the digital library, targeted users, access, and so on. It is important to note that when it comes to Waqf libraries, it is the rules and conditions associated with the Waqf library that will shape the actual policy of the library. Therefore, each Waqf library will have its own different policy. The policy of the normal types of libraries are mostly determined by the management of the library or members of the board. However, Waqf library policies are determined by the donor of the Waqf at the time of the donation, then registered in court, and become the policy of the Waqf library.

Users

This means the targeted users of each library. In the first section of this part of the literature review were mentioned different types of libraries that aim to serve different types of users. Therefore, a digital library should have targeted users/communities to serve based on the reasons for its foundation, its mission, and its policies.

Types of digital libraries and their contents

Having established a set of minimum core components for a digital library, attention now shifts to the types of digital libraries in existence today. Rikowski (2011) divided the types of libraries that we have today into the following categories: traditional, digital, hybrid, and virtual. However, a closer look at the status of modern libraries shows that most digital libraries that exist today are what we could call hybrid digital libraries, which are libraries that provide both on-site traditional and remote digital services. A hybrid library has a bricks-and-mortar location as well as a website that provides digital services. Examples of this are the British Library and the Library of Congress, where you could go for a traditional visit or surf their online website for digital materials.

Current development in the field of digital libraries has encourage the emergence of born-digital libraries. A born-digital library is one that exists and provides services only through a website/virtual channels and does not have a physical location (it could have physical location for its employees and management, but not for users). A born-digital library's content does not have to be only born-digital content, it can have both digitised content and born-digital content. An example of such a library is the World Digital Library project. However, most current digital library content is digitised materials from libraries' own resources (Nnenna & Ume, 2015).

Scholars, when mentioning the born-digital concept, often refer to born-digital collections that exist in digital libraries, and do not use this language in reference to born-digital libraries as a body. A study by Pandey and Misra (2014) defined the term born digital as meaning, "originally produced in machine readable digital form (e.g. e-books, e-journals, online databases, digital photographs, websites, multimedia etc.)," (p. 136). The study did not

mention a born-digital library as a body that can be represented as a library website only with no physical location. Nnenna and Ume (2015) also refer to born digital as, "information resources which are born digital, having created by computational technologies and never existing in analogue format," (p. 34). Kirschenbaum (2013) also talked about the born-digital concept, though from a content point of view as well. Ultimately, nowadays and from an existence point of view, there are either hybrid or born-digital libraries.

When it comes to the contents of the above-mentioned two types of digital libraries, the hybrid digital library and the born-digital library, it is noticeable that physical content still plays an important role alongside digital content. Even if a library provides access to its collection online, some of that collection may be a digitized version of print content that still exists in the library, whereas some content could be a born-digital content that does not have a printed version and only exists virtually. Calhoun (2014) explained, "Hybrid library collections contain non-digital, digitized and born-digital resources" (p. 111).

As we live in a digital era, libraries are trying hard to catch up with the rapid advance transformation from analogue to digital in almost every aspect of our lives. For libraries, this will occur by contributing to the digital transformation movements by digitising their physical content and providing access to online digital content via third parties. This is what libraries' patrons need at this stage. People are shifting away from dealing with print collections to preferably accessing what they need online. As Indrák and Pokorná (2021) explained,

> The nature of libraries has already fundamentally changed because of the digital layer that has been added to the libraries' space for the dissemination of information. The idea of an institution, which is physically tied to a building where information lies hidden in endless shelves of books is no longer viable; restricted information available only through book loans or painstaking research in study carrels is no longer attractive to library users. Easy access to information is nowadays a valuable commodity, so a library's reach is an important factor leading to its success; digital libraries need not worry in this regard, as the library extends as far as the user chooses to go. (p. 169)

However, trying to eliminate physical libraries' content and provide only digital content (whether digitised or born-digital content) is not an easy way forward; we are just not there yet. As described below, there are some obstacles that make it difficult for libraries to provide only digital content and disregard the physical content, including rights and costs.

When it comes to rights, libraries used to buy print books and journals and own those print items. However, when it comes to digital content, ownership is more complicated. If a library digitises content in its collection, the library can provide full access to its users assuming that the library owns and holds the copyrights (Koulouris & Kapidakis, 2012). In contrast, if a library digitises content for which it does not own the copyrights, and the copyrights are owned by third parties, then the library can only provide access onsite (Koulouris & Kapidakis, 2012). In this case, users still have to go to the physical library to access online content. As we explore the concept of a digital Waqf library, this issue of digitising and rights may emerge as a major obstacle that needs to be addressed. When it comes to the content of a Waqf library, the content is usually already owned by the library, and ultimately, by God.

However, can a digitised version of that Waqf content also be treated as a Waqf too? Along with digitising, libraries provide access to other digital content that they do not have the physical version of , either by buying the digital version or by buying access to the digital content from publishers and vendors in the form of a subscription. This mechanism, along with continuous digitising, looks to be the future of how libraries will acquire their content. As Calhoun (2014) explained,

> It remains an open question whether e-book licensing will substantially replace print book collecting, going forward. A major shift to e-books for providing access to current titles for academic libraries could happen, but many serious barriers remain. (p. 118)

In terms of how the new methods of acquiring libraries' digital content will affect libraries' budgets, Calhoun (2014) stated:

> Libraries now license and purchase access to digital content (articles, e-journals, e-books) instead of purchasing the content itself. . . . It is increasingly important for all

librarians to have a basic grounding in the legal aspects of negotiating and adhering to the terms and conditions of digital content licenses . . .because much is at stake in terms of the library budget. (p. 130)

Therefore, libraries now have to keep paying annual fees in the form of subscriptions to provide digital content (which they do not own) to their users rather than just buying two or three print copies of a book and keeping them in their collections for years. This new method of accessing digital content is more expensive to both libraries and users. As Lieu and Zhao (2019) stated, "e-materials also present some challenges to libraries and to users as they are often more expensive [and] restricted by digital rights management" (p. 255).

In terms of the cost issue, Edge Hill University library serves as an important example. In 2020, 58% of the library's collection was in print and 42% were digital (Franca, 2021). For years, the library had been considering the cost and budget needed to provide e-books (Franca, 2021). However, the Covid-19 pandemic and the closure of physical libraries urged the library to act fast in providing a wider election of digital content (Franca, 2021). Of course, the Covid-19 pandemic may have served as a type of wakeup call to libraries to illustrate the urgent need to expand their offerings and rely on digital as opposed to physical content. Still, the issue of cost may force libraries to slow the pace of acquiring digital content and relying less on their print collections.

Along with the cost of digitising a library's collection, buying or providing access to digital content is still expensive and makes it difficult for libraries to be able to provide only digital content. Franca (2021) explained the issue of cost that Edge Hill University library faced when trying to provide digital content:

Whilst we were successful in securing access to many titles, we were unable to negotiate access to everything on our initial list. Whilst the issues around e-textbook access are complex, the overriding barrier to making these titles available to our students has been one of cost and some of the prices quoted to us for individual titles have been shocking. (p. 3)

Physical content may still be up and running side by side with digital content these days, as there are still some books only available in print. According to Franca (2021), "Whilst we have endeavored to purchase e-books on an institutional license across all our reading lists, there are still many titles, particularly on lists for programmes in our Faculty of Arts and Sciences, that are only available in print" (p. 4).

To shift our perspective to Waqf libraries regarding the above-mentioned content issues and the existence of physical versus digital content, as this thesis is in the process of exploring the concept of the digital Waqf library, we have yet to understand how digital content within a Waqf library might exist. Until now, all existing Waqf libraries have had physical tangible content, which is usually owned by the Waqf donor prior to registering the library as a Waqf.

We mentioned above that some of the mechanisms by which a library provides digital content involves provide access to other vendors, such as publishers who own the rights to the original digital content; sometimes, a library will purchase digital content rather than providing access to the content through subscribing to the service. However, when it comes to Waqf libraries, if we are to consider registering a digital library that only provides access to digital content through vendors and does not own the digital content as a Waqf, this might be an issue. As explained in the Waqf section pf the Literature review chapter, one of the main rules governing accepting a Waqf is that the donor has to own the property. Another issue that might arise regarding Waqf and digital content is that the Waqf has always been tied closely to tangible assets with known locations that have value and can be seen, such as lands, farms, physical libraries and wells. However, when we want to register a digital library as a Waqf, this will involve the registration of digital data, and whether digital content (data) can be treated as a real tangible asset is not yet known.

This issue of whether to consider digital data/content as a tangible asset, while it might be new in terms of Waqf and the Islamic point of view, has raised a dilemma in fields other than religion. For example, Bolter and Grusin (1999) maintained that data and computer applications should actually be considered real tangible assets. As they stated, "Media have the same claim to reality as more tangible cultural artefacts; photographs, films and computer applications are as real as airplanes and buildings" (p. 19). As another example, in the insurance field, Toemoe, Yeldham and Milosevic (2017) wondered:

As ever, the law in this area has been slow to keep up with advances in technology. Whether data or electronic information can be considered tangible property' (and therefore insured property) poses an important question for insurers and policyholders alike. Put simply, is your data insured or not? (p. 1)

Following, we will look at the different possible reasons that might encourage libraries to go digital and adopt the use of technology.

Why go digital?

The majority of studies, including that of Pandey and Misra (2014), suggest that the two main reasons that libraries go digital are the preservation of their collections and increased user access to information, regardless of location and time. While this is true, there are other reasons that motivate libraries to create digital content, including the rapid increase in the number of available electronic resources, potential reductions in library budgets due to the elimination of the space required for printed books, and a desire to cooperate with other digital libraries and databases to share information (Pandey & Misra, 2014).

Rafiq and Ameen (2013), when evaluating the digitisation status of university libraries in Pakistan, found that the main reason that libraries decided to digitise their collections was to facilitate access. The study found that other factors influencing the participating libraries included the preservation of materials, more free space in the library, and providing access to collections through the Internet (Rafiq & Ameen, 2013).

Kani-Zabihi, Ghinea, and Chen (2006) believe that there are several advantages for libraries to switch to digital format, including changing the way people acquire and seek information. The authors also believe that digital libraries play an important role in supporting distance learning and that digital libraries save physical space in traditional libraries (Kani-Zabihi, Ghinea, & Chen, 2006).

Nnenna and Ume (2015) believe that there are three main reasons for libraries to digitise: the vital need to preserve the most valuable materials, the development of the information search process, and the ability to provide better access to library materials. Further development of the information search process is an important and helpful feature of digital libraries, even though it is not one of the common reasons for digitising. Traditional information searches in libraries take longer than digital versions that offer the ability to complete a search for an individual word or sentence within a document of hundreds of pages in minutes.

Increased access to library materials is an important factor in the digitising of libraries, as it guarantees remote access for users (subject to library policies) while simultaneously helping to preserve rare and old books and manuscripts by minimising human handling. Following scanning, these unique collections can be preserved in special locations while allowing library users to go through them page by page electronically.

However, deciding to go digital is not always an easy decision, and the most challenging issues that libraries face are the costs of digitising, the costs of subscriptions to electronic databases that allow libraries to provide full services to their users, and the prioritisation of the digitising process. Pandey and Misra (2014) identified the following factors that must be considered when deciding the order of priority of items for digitisation: the physical condition of the materials; access to the materials; the value of the content; the demand for the material; any intellectual property rights; the required infrastructure, and the costs and sources of funding.

Key challenges

There are many studies that review the challenges encountered by digital libraries from different points of view, such as technological issues, policies and copyright, preservation, users, funding, services, sustainability, and access (Calhoun, 2014; Kuny & Cleveland, 1998; Sharma & Vishwanathan, 2001; Xie & Matusiak, 2016; Greenstein, 2000; Koteswara, 2004).

For the present discussion, the most important challenges for digitisation centre on access and copyright. These elements are major challenges in the field of digital libraries, and they are interdependent. The aim of reviewing these key challenges is to understand later how they might affect the new concept of digital Waqf libraries. Waqf libraries have their own rules and conditions, and how these might conflict with the issue of access and copyright in the digital atmosphere is important to consider. Would, for instance, the conditions of the Waqf in a Waqf library take precedence over the copyright laws?

Access

When digital libraries first began to emerge, many different studies mentioned access as a major reason for libraries to go digital. At that time, perhaps scholars thought switching to digital libraries would increase access to materials, as Hughes (2004) explained:

> The expansion of a global computer networks and high-speed access to the Internet has led to a proliferation of digital content, delivered to increasing numbers of computer users worldwide there is a growing demand for immediate access to rich content and easily accessed, up-to-date information from news and media organizations. The development of 'digital libraries'... has preceded and anticipated much of this demand. (p. 4).

Green (2011) stated that "Perhaps the most basic principle is that libraries (and archives and museums) are public goods to which free and unhindered access should be guaranteed by the state" (p. 4). Looking at the current situation of digital libraries, it can be said that this is not the case. Not every digital library allows free unrestricted access. For example, access to the websites of academic libraries could be restricted to students and staff. You could probably surf the catalogue and get a bibliography, but you would not be able to acquire the full texts. Despite the plethora of movements that advocate providing unrestricted access to knowledge, the problem of unrestricted access remains an issue to this day. Rydén (2013) contends that "There are many legal restrictions that may be perceived as impediments while striving for digital access to knowledge. Is the goal digital access an illusion?" (p. 7). It is not an illusion, rather, access is provided based on each individual library's guidelines and regulations.

Calhoun (2014) mentioned that the increase in digital libraries makes free and open access more available and even desirable. She defined the concept of a digital library as one that provides open access, but she also says that this definition "does not exclude fee-based or restricted access digital libraries such as those produced by publishers and other e-resources providers, provided they are intendent to serve defined communities" (Calhoun, 2014, p. 25).

This does not mean that there are no digital libraries that provide open access to materials. There are digital libraries that provide materials under open access and fair use and materials that are not protected by copyright laws anymore, but the idea that the emergence of digital libraries would provide a wide range of unrestricted access is no longer the case. Today, there are a variety of reasons for restricted access to digital libraries and digital materials. That leads to the understanding that even though the emergence of digital libraries is a breakthrough, and it does facilitate the search for information, we have to recognise and acknowledge that the term digital library does not yet mean full, unrestricted use of information.

Currently, some digital libraries are providing what we could call hybrid access. They do not give full, unrestricted access to everyone, but they do provide unrestricted access to parts of their digital collection with the ability to access the rest of the digital collection by visiting the physical library and using their computers.

Access has been highlighted as an important criterion of a library since before the emergence of digital libraries. Ranganathan (1931, pp. 1–382) mentions five laws that shape the meaning of a library and define the necessary criteria for libraries as follows:

1. Books are for use.
2. Every book its reader.
3. Every reader his or her book.
4. Save the time of the reader.
5. The library is a growing organism.

In the first law, Ranganathan (1931) emphasises the importance of access to books. This is the core service of libraries. Otherwise, they are merely warehouses for the storage of books.

Regarding the first law, Ranganathan (1931) mentions that in the sixteenth century, there were certain restrictions on books, and some were chained. At that time, this restriction could have been imposed for various reasons, including for religious and/or preservation purposes. However, years after Ranganathan's (1931) laws, and with the emergence of technology and digital libraries, access currently remains the most important reason that motivates administrators to digitise their libraries. Hughes (2004) states that "The primary, and usually the most obvious, advantage of digitisation is that it enables greater access to collections of all types" (p. 9). Several scholars (Breeding, 2014; Liu, 2004; Rafiq & Ameen, 2013) have also suggested considering access as the first reason to digitise libraries.

There are different types of access to digital collections, which can be divided into four categories:

1. Completely open/free.
2. Free for certain users.
3. Free under certain conditions.
4. Not free or open.

The **first** type, which is aimed to be free and open for everyone, usually does not require any payment, complicated registration, or membership to access the collection. A prime example of this type is the World Digital Library.[4]

Regarding the **second** type of access, some types of libraries aim to serve specific types of users. The kind of access that is available only to certain users is observed in academic libraries, among others, including Waqf libraries. Most academic libraries allow the public to browse their online catalogues but do not grant access to their materials unless the users are members of their institutions. An example of this type is the University of Manchester Library (n.d.), whose main website states, "Due to licensing restrictions, most of the library's electronic resources are only available to current staff and students of the University of Manchester."

---

[4] https://www.wdl.org/en/

Licensing restrictions prevent free access to most of the university's digital materials. A project called the Early English Books Online (EEBO) is a result of a collaboration among ProQuest LLC, the University of Michigan, and Oxford University to convert 25,000 books from EEBO into fully searchable, TEI-compliant SGML/XML texts. Unless users are employees or students of certain educational institutions, they will be unable to access this digital collection. The EEBO project's official website states:

> Please note that it is very rare for us to set up free trial access for individuals. Individual pricing is not available, and all trial requests will be considered on a case-by-case basis. EEBO is aimed at the educational and library institutions market and is priced accordingly. We reserve the right to refuse a trial subscription (EEBO, 2018).

The **third** type of access is guaranteed under specific circumstances, such as the case of accessing the digital collection of the legal deposit in the United Kingdom. Although digital legal deposit is an excellent way to enrich the content of digital libraries, there is a dilemma in terms of access. According to the National Library of Scotland (2018), "Access to legal deposit digital publications is restricted to computer terminals at the library." This kind of access restriction poses another challenge in addition to copyright issues and Waqf conditions, and it could be categorised as a geographical access.

The **fourth** type of access could have two possibilities. The first one is that the digital collection's owner is a private entity (could also apply in Waqf libraries), or the private collection belongs to a certain company, where the materials are digitised for its own use and the company will not grant outsiders access to its collection. The second possibility is to make profits. In this situation, users can only access the collection if they pay fees, a policy that applies to all without exception. An example is the British Library Newspapers project where you have to pay fees to access it, which is introduced as follows: "The British Newspaper Archive is a partnership between the British Library and Find My Past to digitise up to 40 million newspaper pages from the British Library's vast collection over the next 10 years." (British Newspaper Archive, 2018).

Copyright

One of the most significant barriers to access physical and digital libraries' content is copyright. The United States Copyright Office (2016) defines copyright as follows:

> Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. (p. 8).

From the beginning of the emergence of digital libraries, scholars have anticipated that copyright laws might present an obstacle to the growth and development of digital libraries. Chepesiuk (1997) argues that "copyright may be the single most vexing barrier to digital library development" (p. 1) because it may prevent libraries from giving access to materials or prevent them from acquiring materials in the first place.

Copyright law differs across countries, and there is currently no copyright law honoured worldwide. This lack of consistent global law creates differences in access to copyrighted materials as, in some countries, copyright is well-respected and the law is well-enforced, whereas others see frequent copyright violations.

The reasons to trigger the creation of copyright laws vary between developed and developing countries. AlReyaee (2006) explains as follows:

> From an international perspective, it is exceedingly difficult to uncover the history of copyright, because the division between developed and developing countries complicates an accurate charting of copyright conflicts and construction. In some countries, copyright was developed within the context of religious laws, while in others it exists independently. Following and summarising the history of copyright in a global context is also made more difficult by the fact that each world region has enforced copyright issues through its own legal system, and therefore, has produced a unique

legislative history as far as copyright issues are concerned. However, the foundations

of copyright in Europe, and its shift from being solely a domestic concern to an

international one, are fundamental aspects of copyright history. (p. 17).

These differences in applying copyright laws among countries are reflected by the level of restrictions in access to digital libraries. If there is restricted access to a digital library in the UK due to copyright law, it does not mean that the same restriction applies in another country, particularly in developed nations. Therefore, despite copyright laws being obstacles to digital libraries' provision of free and open access, the laws are not consistent globally. This inconsistency might encourage researchers to seek digital materials from libraries with less strict enforcement of the copyright laws.

In 1996, the World Intellectual Property Organization (WIPO) was established and became an international resource for copyright laws. Nevertheless, the organisation did not actually address copyright laws in digital versions of libraries. AlReyaee (2006, p. 52) explains that,

When the treaty was approved, no legislation existed to deal with digital

copyright at the international level, nor within the limited scope of national law.

However, the WIPO encouraged all countries to create and develop domestic

copyright laws, which address the digital issues that might arise.

There are different situations in which digital libraries can use copyrighted materials. In the United States, under Section 108 of the copyright law, libraries are allowed to make copies of protected materials under certain circumstances, such as when the copying is not intended to generate money or for commercial purposes. In such cases, a note must be attached to the copied materials to indicate that they are a copyrighted items (Liu, 2004).

Libraries can also include items available in the public domain no longer protected by copyright laws in their digital libraries. Laws on public domain differ from country to country. The United States Copyright Office (2016) indicates that,

In general, copyright in a work created on or after January 1, 1978, subsists from its creation and, except as provided by the following subsections, endures for a term consisting of the life of the author and 70 years after the author's death (p.133).

This standard does not currently apply worldwide. Therefore, until an internationally enforced copyright law exists, digital libraries in each country must review their local copyright laws or seek guidance from lawyers (Liu, 2004).

Fair use

Balancing between authors' moral and economic rights, and providing open unrestricted access, has been an ongoing debated issue. The World Intellectual Property Organization (WIPO) has attempted to "achieve two objectives. The first was to give legal expression to an author's moral and economic rights, and to balance these rights with the right of the public to access the created works" (AlReyaee, 2006, p. 27).

This kind of balancing act could be represented under the act of fair use. It is understood that the term fair use is an American term, and for example in the UK it is called fair dealing. However, this thesis refers to the American term, as it is widely used, and later the next section of the literature review, which is about Saudi Arabia, aims to investigate how this term exists in the Saudi copyright law.

The United States Copyright Office (2016) defines fair use and sets the criteria that shall determine the eligibility of fair use, as follows:

The fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include:

(1) the purpose and character of the use, including whether such use is of a
commercial nature or is for non-profit educational purposes;

(2) the nature of the copyrighted work;

(3) the amount and substantiality of the portion used in relation to the
copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the
copyrighted work (p.19).

Since the Internet has become the main source of information, libraries have had to deal with access to and distribution of protected materials. However, libraries have always stressed the "public's right to use materials beyond the boundaries of protection" (AlReyaee, 2006, p.56).

Before the digital age, copying materials was not as easy as it is today. Copying previously required time and effort. However, the current copyright laws and tough restrictions on access to knowledge have backfired in terms of widespread piracy. Making an electronic copy of a book is not as difficult as copying a printed one; one click does the job.

Despite authors' and publishers' attempts to take all possible measures to prevent illegal access to their electronic materials, there remains a high probability of their works being hacked and pirated. "[O]nce an unencrypted copy of the work escapes into the wild, the fact that consumers will need to copy that copy rather than make their own is not of much use to copyright owners" (Litman, 2017, p. 179).

Digital Waqf library

Waqf in the digital age

In general, the field of digital Waqf is still a fairly new field that requires additional studies and investigations. However, this field has few different studies and attempts, though none is solely directed towards digital Waqf libraries in particular. The study of AlShaye (2017) is one of the main pioneer studies regarding the Waqf in the digital age. The study tackled the possible existence of Waqf in general in the digital world from an Islamic perspective, the author believe that it is allowed and possible to create a digital Waqf in general, even though some might argue that digital proprieties cannot stay forever. AlShaye (2017) also mentioned that the field of digital Waqf is still new and emerging field and recommended that additional studies should be conducted regarding this matter. The author hoped that in the future, we will be possible to create a solid, recognised digital Waqf.

In 2017, researchers Mehaouat and Babbouche published a conference paper called 'Electronic Waqf and its role in the quality of Islamic education'. The paper discussed the definition and importance of Waqf and then mentioned that the concept of a digital/electronic Waqf is still a fairly new concept with limited literature and studies addressing the issue. At the end of the study, the authors encouraged and urged Islamic scholars to study this important matter and clarify a set of new Islamic regulations and guidelines that aim to regulate the concept of a digital Waqf.

Moreover, Mohsin (2019) stated and discussed the possible use of financial technology in Waqf. Alharthi (2021) informed about using the technology of Blockchain in Waqf. In his paper, he mentioned the different obstacles that may prevent using Blockchain as a Waqf, such as the lack of transparency. Hence, this thesis aims to investigate the digital Waqf from a librarianship point of view, as to how a digital library can exist as a Waqf. However, this study does not investigate how Waqf can generally exist virtually, as such a study requires a solid Islamic background.

Waqf as a digital library

The first section of the literature review chapter explained the concept of Waqf in general, and then the concept of Waqf as a traditional library. When seeking information about the concept of Waqf, useful resources can easily be found by searching any database that contains an Islamic collection. However, it is challenging to search for resources that specifically address Waqf libraries.

To introduce the concept of a digital Waqf library, and to create a solid definition/framework and core minimal components that can be used to recognise a digital Waqf library, it is vital to determine which Waqf rules and guidelines are mandatory and contradict some of the digital libraries' core/minimal elements, both compromised, and optional. Moreover, one has to know which trends in the field of digital library would be considered a breach of the digital Waqf library, such as providing a digital surrogate, and allowing remote access.

As previously mentioned, there are many different views about what minimum components are needed to define a digital library, and there are a variety of definitions for a digital library. But none of these definitions and frameworks are appropriate to address the concept of a digital Waqf library alone. Thus, the main goal of this thesis is to understand and investigate how the concept of a digital Waqf library can be introduced. More details will be presented in Chapter 3.

The importance of filling the literature gap on this topic, which is defining and introducing a framework for a digital Waqf library, can be explained as follows:

There is a lack of studies in the literature that address the concept of a digital Waqf library. Different Waqf libraries in Mecca and Medina were visited and it was and found that some of these libraries have begun to use different kinds of digital services. Therefore, can these be called digital Waqf libraries?

Some people have attempted to create online digital libraries and present them as a Waqf library[5]. With the absence of a proper definition/framework of what constitutes a digital Waqf library, it is not known if these online digital libraries on the Internet actually qualify as a digital Waqf library. Introducing the concept of a digital Waqf library has to be based on the librarian model of a digital library and an Islamic view on how to deal with Waqf libraries in the digital world.

This section will present some examples of the possible controversial and challenging issues that might appear when trying to introduce the concept of digital Waqf libraries. A review of the current Waqf rules and guidelines indicates that a Waqf must be an appointed physical property. This might indicate that an online digital library cannot qualify as a Waqf digital library (at least for now). This kind of conflict needs to be examined by an Islamic scholar to explain if an online digital library could actually exist as a Waqf or if that breaches the rules of Waqf, which means it does not qualify as a Waqf.

Moreover, could an extended digital service (hybrid digital library) of a physical traditional approved Waqf library qualify automatically as a digital Waqf library? Could an extended digital service (hybrid digital library) provided by a non-Waqf physical library somehow qualify as a digital Waqf library?

As previously mentioned, one of the important components of a digital library is that it should provide access to materials. However, that can be challenging due to copyright laws and policy issues that can prevent users from accessing certain types of materials. Access to these restricted materials could breach the copyright and policy laws of digital libraries, which may result in legal action.

Similarly, one of the issues that could arise when trying to introduce the concept of a digital Waqf library is the concern of breaching the Waqf conditions associated with each Waqf library. Waqf libraries usually aim to serve a specific people or community. The dilemma is that the current Waqf rules and guidelines have existed for a long time before the digital age.

---

[5] A rare example is an online library that calls itself *Al Maktaba Al Waqfyah* [The Waqf library]. https://Waqfeya.net/

When they were created, they were meant to address physical Waqf proprieties. Therefore, in digital Waqf libraries, does providing digital services as an online catalogue, providing a digital surrogate and allowing remote access to the digital collection (whether digitised or born-digital) represent a breach of the Waqf rules? If the answer is yes, could the fair use law be a gateway solution to offer a kind of digital access to digital Waqf libraries without breaching the Waqf rules, or will the rules of the Waqf library stand against this kind of modern attempts?

A traditional Waqf library has to be registered and approved by the court to be qualified as a digital Waqf library. Is it still mandatory for digital Waqf libraries to be qualified as a digital Waqf library? Moreover, do Waqf rules and conditions overrule the copyright of items in a digital Waqf library? For example, if someone donated a digital book to a digital Waqf library, and that digital book is protected by copyright, and the library that received the donated book is a public Waqf library, will the rules and conditions associated with the Waqf library be applied regardless of the copyright status of the item? This question could arise as a result of what was mentioned in the chapter on Waqf, which is that anything that is given to a Waqf property shall automatically follow the rules and conditions of that Waqf property.

These concerns and questions play a vital role in illustrating the possible issues that could occur when trying to introduce the concept of a digital Waqf library. They are also an indication of the importance of introducing a definition and framework for a digital Waqf library.

Section Three: Saudi Arabia

As the focus of this thesis is Waqf libraries in Mecca and Medina, which are located in Saudi Arabia. This section aims to provide a brief review on the Waqf and libraries status , digital libraries, access, copyright and intellectual property in Saudi Arabia.

Waqf

Since its foundation, Saudi Arabia has taken great care of the Awqaf that existed in the country, and it has taken further steps to develop the mechanisms in which a Waqf can be enforced and applied within the country. In its early days, King AbdulAziz decided to assign judges in different cities around the kingdom to supervise all Waqf proprieties (Alomair, 2018). Then, as the country continued to develop, the Ministry of Pilgrimage and Awqaf was established by a royal decree in 1961 (Alomair, 2018).

 In 1966, an official decree was issued to establish the Higher Council of Awqaf, whose main purpose was to be the official body to manage and regulate all Waqf issues in the country (Alomair, 2018). Finally, as the country kept developing, it was time to refresh and develop the Waqf body of the country and update its regulations. Therefore, in 2015, royal decree number 73 was issued to establish the General Authority for Awqaf6.

The royal decree included 25 articles that specifically explained the duties of the Geneal Authority for Awqaf, which included registering and managing both public and private Waqf within the country. Its mission is to manage, register and organise all Waqf-related assets and matters in the country. It even offers to act as Nazir Al-Waqf for any Waqf property7. Currently, this body also acts more as a consultant and a general supervisor to Waqf libraries. In line with the development of technology in all aspects of our lives, the General Authority for Awqaf in Saudi Arabia created a website that provides the necessary information about their specific roles. Moreover, this website now has a function where it allows people to register their physical properties officially as Waqf online through the website.

---

6 https://www.awqaf.gov.sa/sites/default/files/2019-07/%D9%86%D8%B8%D8%A7%D9%85%20%D8%A7%D9%84%D9%87%D9%8A%D8%A6%D8%A9%2022_2.pdf
7 https://www.awqaf.gov.sa/ar/about-authority

libraries

The foundation of modern Saudi Arabia began when King Abdul-Aziz entered the current capital city, Riyadh, on the fifteenth of January 1902, which marked the beginning of the journey to unite the different parts of the current Saudi country. On the nineteenth of September 1932, King Abdul-Aziz issued a royal executive order announcing the unification of various territories and officially calling and using the name Saudi Arabia, starting from the twenty-third of September 1932.

Before the era of King Abdul-Aziz and the emergence of current modern libraries, libraries were mostly seen in mosques (and, as mentioned in the Waqf libraries section, mosque libraries are a type of Waqf library), as education very often used to take place in mosques where people studied all subjects related to the Islamic religion and other subjects like the Arabic language, history, medicine, algebra, and so on (AlSalm, 1999). The public mosque libraries in this area (now known as Saudi Arabia) go back to the beginning of Islam. The reason for that is the existence of the two holy cities of Mecca and Medina, as these two cities were the essence of the Islamic religion and where many people, since the beginning of Islam until today, head to perform religious rituals. This resulted in the vast accumulation of books from all around the world, as people, whether scholars or kings, would bring books as presents or donation to mosques in these two cities as a way of obtaining blessings and rewards from God (AlSalm, 1999). This is how the current historical collections of the two holy mosque libraries in Mecca and Medina initially developed.

Thereafter, Waqf libraries played a major role in supporting education and helped the foundational structure of libraries in Saudi Arabia (AlSalm, 1999). Even though mosque libraries were the first to exist, throughout the years different Islamic scholars and kings donated their private libraries as a Waqf in the two holy cities of Mecca and Medina, for the benefit of students, scholars, and knowledge (AlSalm, 1999).

Throughout history, some of those Waqf libraries disappeared for different reasons, such as neglect or theft, but some still exist today. However, before the Saudi era, even though libraries existed, they were not able to fully perform their functions for a number of reasons, such as the limitations on access to education; the lack of the means, for many, to a proper education; the common occurrence of wars; illiteracy; poverty; the absence of stability and security; and the lack of support from the Ottoman Empire regarding knowledge and education in the Arabian Peninsula (AlSalm, 1999).

After the unification of the current nation of Saudi Arabia in 1932 by King Abdul-Aziz, all things related to the support of education – from schools to libraries – began to rapidly change for the better. The reason for this is that, under the ruling of King Abdul-Aziz, people started to feel safe, which resulted in different outcomes that were crucial elements of the emergence and development of contemporary libraries, schools, universities, research centres, and so on, and these outcomes can be illustrated as follows:

• The spread of peace among people and tribes.
• The beginning of the emergence of modern cities.
• The continuous support of King Abdul-Aziz to provide all the means to people, so they could build a contemporary society that could deal with and focus on developing education and knowledge; King Abdul-Aziz and his government believed in the importance of supporting education and knowledge to forming a contemporary society (AlSalm, 1999).

One of the decisions of King Abdul-Aziz at that time was to take care of, develop, and preserve the existing libraries, as libraries were in a kind of chaos before that (AlSalm 1999). During the time of King Abdul-Aziz, and because of his continuous support to the development of education, many libraries came into existence. Some examples of these libraries, as mentioned in AlSalm (1999), are as follows:

• The public library of the city of Al Dharan, which was founded in 1928 and was initially managed by the Arabian-American Oil Company.
• The public library of the city of Buraydah, which was founded in 1931.
• The library of the holy Mosque of Medina, founded in 1932 – the library's collection was formed from different Waqf libraries that existed throughout history.

During the time of King Abdul-Aziz, the king ordered care for abandoned libraries. Some of those libraries were Waqf libraries, such as the *Arif Hikmat* Waqf library, founded in 1844, and the *Mahmodiah* Waqf library founded in 1821 in the holy city of Medina (AlSalm, 1999). These Waqf libraries still exist today under the supervision of the government and the courts. As mentioned earlier, Waqf libraries have to be kept forever and managed by the courts. As in this case, the decision to move Waqf libraries from their original locations to another location for the greater good was made by the official authorities.

To conclude, Siddiqui (1995) wrote:

> [m]ost of the libraries available today throughout Saudi Arabia were established after the present kingdom was founded in 1932. After assuming power, King Abdul-Aziz gave much attention towards developing the country. While the King spent a major part of the country's resources in opening schools and colleges, he also established libraries in educational institutions as well as in big cities, for public use. (p. 24).

In time, the typical types of library that were described earlier (public, academic, special, and national) started to emerge in Saudi Arabia, alongside the process of taking care of the already existing Waqf libraries, and the creation of new ones. However, as mentioned, the literature, especially Western literature, did not mention Waqf libraries as a common type of library. It is understandable, as explained in the Waqf section, that Waqf libraries were not properly introduced to the literature in general. Looking at the literature about types of libraries in Saudi Arabia also shows the lack of categorising Waqf libraries as a main type of library. Even though, as mentioned, there are studies (though limited) that talked explicitly about the long historical existence of Waqf libraries, such as Hmadi (1996), Moftie (2003), Qattan (2012), Iesei (2018), and Alshangity (2015), Waqf libraries remained mostly unrecognised as a main type of library. As explained earlier, the necessity of recognising Waqf libraries as a type of library due to their uniqueness and complex policy of existing is vital.

For example, AlSalm (1999) categorised libraries in Saudi Arabia as five different types:

- Mosque libraries.
- Private libraries.
- Public libraries.
- School libraries.
- Special libraries.

Even though AlSalm (1999) mentioned Waqf libraries in terms of their importance, history, and some examples he did not consider Waqf libraries as a main type of library. As mentioned earlier, mosque libraries are a type of Waqf library. Therefore, if Waqf libraries are recognised as a main type of library, mosque libraries would be placed within the Waqf library category. Moreover, in the book, the author, in the private libraries section, mentioned different examples of libraries, among them Waqf libraries, such as the Waqf library of *Mudher Al Farouqi*. However, placing Waqf libraries under a main section of private libraries could be confusing, as under private libraries could be presented both Waqf and non-Waqf libraries. Siddiqui (1995) mentioned the following types of libraries that exist in Saudi Arabia:

- Public libraries.
- School libraries.
- Special libraries.
- Academic libraries.

Even those types, which matched the common types of libraries that were recognised earlier in the literature, it still did not recognise Waqf libraries as a type of library. Siddiqui (1995) placed mosque libraries under the main type of public libraries, while AlSalm (1999) classified mosque libraries under public libraries as a main type of library. As mentioned earlier, mosque libraries are a type of Waqf library. Therefore, rather than placing Waqf libraries under other categories, they should be recognised as a main type of library.

AlSuraie (2001) talked about the existence and development of libraries in the pre- and post-Saudi eras and mentioned the historical existence of Waqf libraries in the region. He then proceeded to categorise the existing types of libraries in Saudi Arabia within eight different categories:

• Public libraries.

• Academic libraries.

• School libraries.

• Children's libraries.

• Literary and sports club libraries.

• Prison libraries.

• Speaking libraries (providing services to the blind).

• National libraries.

This could be considered as an overly detailed categorisation of libraries, as some of these types could be seen as sub-categories to be placed under a major type, for example, school libraries could be placed under academic libraries and prison, literary, sports clubs, and speaking libraries could be placed under special libraries. However, the study talked about Waqf libraries and provided some examples of Waqf libraries, but it did so as part of the public libraries section. In this section, the authors provided both Waqf and non-Waqf libraries as examples of public libraries, which could create confusion, as public Waqf libraries are different from normal public libraries, as explained in the Waqf library section of the literature review.

Today, the official national library of Saudi Arabia, King Fahad National Library, has on their website a service that enables users to search for existing libraries in Saudi Arabia – a libraries directory. Through this directory, one can search for libraries by name, type, or city. However, when searching by library type, the list displays the following:

• National libraries.

• School libraries.

• Special libraries.

• University libraries.

• Public libraries.

As we can see from Figure 9, Waqf libraries are not listed as a main type of library, even though they can exist as a different type of library due to their unique rules and conditions.
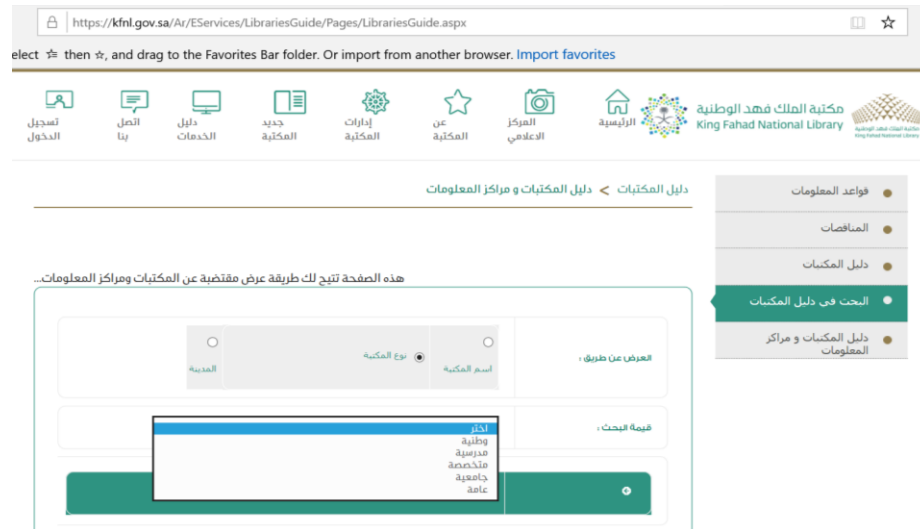
Figure 9. King Fahad National Library's directory service webpage. At the bottom of the page is a list of the types of libraries: National, School, Special, University and Public. Waqf libraries are not listed.

Waqf libraries in Saudi Arabia are managed by different government entities, and as explained in the Waqf section of the literature review, the ultimate decision regarding any conflict in Waqf libraries has to be issued by the courts. In this case, there might be the need for further review before placing Waqf libraries under one government entity. In Saudi Arabia there is a government entity called the General Authority for Awqāf; this commission was established in 2009 and aims to organise, supervise, preserve, and apply the conditions of every Waqf body. However, it is not directly supervising Waqf libraries throughout Saudi Arabia. Rather, Waqf libraries are supervised by different government entities:

• Mecca Al Mokarmah Waqf library (Public Waqf library) managed by the Ministry of Islamic Affairs.

• The Waqf libraries in the two holy mosques in Mecca and Medina are managed by the General Presidency for the affairs of the Grand Mosque and the Prophet's Mosque.

• King Abdul-Aziz Complex for Waqf Libraries in Medina is a self-managed independent government body.

• Family Waqf libraries are typically managed by family members, who report to the court in case of conflict.

The current different types of libraries that now exist in Saudi Arabia are:

• Public libraries, such as Jeddah public library.
• Academic libraries, such as King Abdul-Aziz University Library.
• Special libraries, such as prison libraries.
• National libraries, such as King Fahad National library.
• Waqf libraries, Such as Mecca Al Mokaramah Public Waqf library.

Even though different Waqf libraries throughout history existed in Mecca and Medina, there is no up-to-date guide that shows which Waqf libraries exist there today.

Digital libraries

In the seventh development plan of the country, the Saudi government focused on the importance of supporting technological development in the field of information and created a national plan to support the development of this field, aiming to benefit economic, social, and educational aspects of life (Almoathem, 2010). Siddiqui (1997) noted that:

> [t]he IT policy in Saudi Arabia is based upon the fact that the application of IT leads to higher productivity, a key factor for economic strength in a highly competitive world. As the level of IT use rises, so too does society's dependence on technology. Additionally, IT promotes harmonization between social and economic development and preserves traditional social and cultural values and the morals of Islam. (p.196).

This resulted in the emergence of different digital projects, some of which were by libraries, resulting in the emergence of digital libraries. Some of these early projects are as follows (Almoathem, 2010):

• The Digital Library Project of King Saud University.

• King Abdullah Digital Library Project at Umm Al-Qura University.

• The Digital Library Project of King Abdul-Aziz Public Library.

• The Project of the Saudi Digital Library.

The start of digital transformation by libraries in Saudi Arabia is believed to have started in 1975 when the King Fahd University of Petroleum and Minerals (KFUPM) Library in Dhahran started to plan its transformation to the digital world. In 1979, KFUPM started to test different library systems (DOBIS, CLSI, BALLOTS, BATAB, and Hewlett Packard's 3000 system) to determine which was most suitable (Siddiqui, 1997). According to Siddiqui (1997), KFUPM were looking for a digital library system that served the following purposes:

• Integration, MARC and AACR/AACR2 compatibility.

• Multiple language capability.

• Network capability.

• Distributed access throughout campus.

• IBM compatibility.

In 1977, Saudi Arabia created the King Abdul-Aziz City for Science and Technology (KACST), which was designed to help support and shape the national technology policies of the country; to support research activities among research centres and academic institutions and to provide digital information services through databases, online search, and digital delivery of documents through an internal community network (Siddiqui, 1997).

Libraries in Saudi Arabia were late in beginning their adoption of digital transfers but once started, progressed rapidly. Initially, most of the adoption of digital transfer was by academic libraries. Dulaymi, Marghalani, McDonald, and Tait (2004) found that "Saudi academic libraries (SALs) have been moving towards using electronic resources since 1992" (p. 190).

In a later study by AlAbdulgabar (2010), the study surveyed all types of libraries in Saudi Arabia that started to go digital and create digital libraries and found that the majority of the adopters of this technology were academic libraries, nine in total. Examples include the King Faisal University library, the King Khaled University library, and the King Abdul-Aziz University library.

The literature regarding the digital libraries and digital transformation in Saudi Arabia focused on the transformation in public governmental institutions and the famous, widely-known types of libraries, such as academic and public. Another example is the study by Elsayed (2014) in which the author looked at the digitising process in different kinds of institutions in Saudi Arabia, such as the Imam Mohammad Ibn Saud Islamic University library, the library of the Institute of Public Administration, the library of the King Abdul-Aziz City for Science and Technology Experience, and the King Fahad National Library.

The previous four libraries that were investigated in the study represent academic, special, and national libraries. Therefore, though the literature around the topic of digital libraries in Saudi Arabia exists to some degree, there is a lack of literature on Waqf libraries in terms of their digital transformation and their digital existence. Furthermore, one study by Bameflh (2003) advocated the importance of technology use in Saudi Arabian Waqf libraries; it also recognised that introducing technology to Waqf libraries might be seen by some as a threat to these libraries. This kind of fear could be related to the lack of studies that try to understand and regulate how Waqf libraries can exist in the digital world in terms of the rules and conditions Waqf needs to exist and be respected, a challenge which this thesis aims to clarify. Bameflh (2003) found at the time of the study none of the current Waqf libraries in Saudi Arabia (the ones that participated in the study) can be considered digital libraries. The lack of academic literature about digital Waqf libraries in specific, does not mean that there are no efforts in the ground in Saudi Arabia regarding supporting and developing Waqf libraries. As we highlighted in chapter one, Saudi Arabia made many moves to support Waqf libraries. It is now the academic literature turn to catch up in this field.

Copyright & Intellectual property

Saudi Arabia is one of the countries that acknowledge, respect and enforce copyrights. It has its own copyright act. The first copyright act of Saudi Arabia was issued in 1990. The 1990 Copyright Act was the first copyright act of Saudi Arabia was issued in 1990. The 1990 Copyright Act was the starting point of the introduction and the understanding of copyright laws in the country (AlReyaee, 2006). The aim of the 1990 Copyright Act was to give

protection to scientific and artistic works, which included protection of print items and computer programmes among others (AlReyaee, 2006).

The 1990 act acknowledged the moral and economic rights of the author but did not properly label those rights (AlReyaee, 2006). The duration of the copyright protection was limited to 50 years after the death of the author; however, the act gave an exemption to public libraries and documentation centres to copy work, based on the need of each institution, but attempted to avoid financial harm to creators of original works (AlReyaee, 2006). Even though the act was created in an attempt to meet the requirements of joining the World Trade Organisation (WTO), it failed to meet those requirements, as AlReyaee (2006) explains:

> The application of the Act has been a serious problem for Saudi Arabia ever since the foundation of the country. It certainly has not helped with copyright enforcement. This Act was developed to meet the WTO requirements, although it failed for one main reason, as stated by the IIPA report: The Act of 1990 did not meet the TRIPS standards in the area of copyright implication due to its failure to include applicable laws that could reduce the level of copyright infringement …. (p. 79).

That outcome resulted in the introduction of the new Saudi copyright law (2003), which was a complete revision of the 1990 act. It addressed all of the problems in the previous act, aiming to officially join the WTO. The 2003 Saudi copyright law addressed many different aspects in detail, such as in Article 2, which considers the different types of original works:

> "This Law shall protect the works created in the fields of literature, art and sciences, irrespective of their type, means of expression, importance or purpose of authorship, such as:
> (1) Written materials like books, booklets and others.
> (2) Works which are verbally delivered like lectures, speeches, poetry and songs and the like.
> (3) Dramatic works, plays, shows and similar presentations, which involve motion, sound or both.

(4) Works which are especially prepared for broadcasting or are presented through broadcasting.

(5) Drawings, works of plastic arts, architecture, decorative art and artistic embroidery and the like.

(6) Sound and audiovisual works.

(7) Applied art works, whether handcrafted or manufactured.

(8) Photographic works and the like.

(9) Illustrations, geographical maps, designs, plans, sketches and sculptured works related to geography, topography, architecture and science.

(10) Three-dimensional works of geography, topography, architecture or science.

(11) Computer programmes.

(12) Protection shall include the title of a work, if it is of creative nature, and not a common expression indicating the subject matter of the work." (Saudi copyright law, 2003, pp. 3–4).

The law addresses different aspects such as: Article 19: Duration of Protection (author, duration of his life and for a period of 50 years following his death). Article 21: Infringements. Previously, under the key changes section of the literature review, and under copyright, it was mentioned the case of fair use, in the Saudi Copyright Law (2003), and under Article 15: Exceptions, there are 12 cases that are treated as lawful use of copyrighted materials without need for permission, some of which are:

(1) Copying the work for personal use, excluding computer software, audio and audiovisual works.

(2) Quoting passages from the work in another work, provided that such quotation be consistent with the conventional practice and within the limits justified by the intended objective, and provided that the source and name of author shall be mentioned in the work where the quotation is cited. This shall also apply to journalistic summaries abstracted from newspapers and periodicals.

(3) Using the work by way of clarification for educational purposes, within the limits
justified by the intended objective, or making a copy or two for public libraries or non-
commercial documentation centres on the following conditions:

(a) Shall not be commercial or for profit.

(b) Copying shall be restricted to the requirements of activities.

(c) Shall not impair the material benefit of the work.

(d) The work is out of print or is lost or damaged.

(8) Music playing, acting, performing or showing any work, after publication, by
government.

(10) Taking new photographs of any previously photographed object or work and
publishing these pictures, even if the new pictures have been taken from the same
vantage point and under the same circumstances of said pictures.

(11) Citing parts of scientific articles and works by research institutions for their
internal use or to fulfil the requirements of those who are conducting studies and
research, provided that the source be mentioned.

(12) Making one reserve copy of computer program for the persons possessing the
original copy for the purpose of protecting the original, while keeping the original with
the user, to show upon request.

The implementing regulations shall detail the circumstances required for these
exceptions to apply. (Saudi Copyright Law, 2003, pp. 7–9).

The latest copyright law of Saudi Arabia has been recognised to meet the technological and
international standards (AlReyaee, 2006).

Moreover, in recognition of the importance of intellectual proprieties and to further develop
the mechanisms and enforcement, which will help in protecting intellectual properties in the
country, the Saudi Authority for Intellectual Property was founded in 2017 (Saudi Press

Agency, 2017)[8]. According to the Saudi Authority for Intellectual Property (2022), its mission is as follows:

> The Saudi Authority for Intellectual Property is a body specialized in regulating intellectual property fields, protecting the rights of owners in various fields, and raising awareness of the importance of this competence and its relevance to nation-building, regulations, and international agreements. It is one of the initiatives of the Ministry of Commerce within the National Transformation Program.

However, it is still not known, nor has it been investigated, how the copyright laws could be enforced within Waqf or digital Waqf libraries, which have mandatory rules and conditions that need to be honoured and which are enforced by the courts. Would the Waqf laws and conditions supersede copyright laws? How should we act if there is a conflict between the existing copyright laws and Waqf libraries' rules and conditions? These are questions that will be investigated by this thesis when exploring the concept of a digital Waqf library.

This chapter has reviewed and presented the meaning of Waqf, Waqf libraries, digital libraries, and where Waqf and Waqf libraries stand within the virtual world. It also presented a brief review about the status of Waqf, libraries, digital libraries, copyright and intellectual proprieties policies in Saudi Arabia. This chapter ultimately revealed that there is an absence of any kind of formal Waqf guides and regulations that regulate and advise on how Waqf can exist in the digital world. Therefore, there are yet a mechanism and a guide, which explain and advise, how a digital library can be registered as a Waqf in specific. The following chapter will explain the steps that were followed in order to answer the questions of the thesis.

---

[8] https://www.saip.gov.sa/en/about/brief

Chapter 3: Methodology

Introduction

To conduct this study and answer its research questions, a mixed methodology approach involving desk research, field visits to Waqf libraries in Mecca and Medina, and interviews was adopted .While libraries and cultural heritage institutions are rushing to digitise their collections, Waqf libraries worldwide must proceed with caution because of the religious implications of Waqf. By exploring the digital practices in the Waqf libraries located in Mecca and Medina, arguably two of the most influential cities in Islamic history and culture, this study identifies areas where these institutions require assistance in dealing with digital content, and then outlines the basic principles of a potential Waqf digital policy based on interviews with two Islamic scholars and experts in the area of Waqf.

This study addresses the above mentioned gaps primarily by enhancing the awareness of and providing insights into Waqf libraries within their various contexts (for example, public, family/private, mosque). It also explores the difficult matter of applying the concept of Waqf in digital libraries. Its practical contributions are to address the issues arising from this application and to provide real-world solutions (for example, advisable processes, means of resolving anticipated conflicts and complications, legal compliance).

When conducting research, whether it is a paper, thesis or other type of work, researchers look into the different possibilities related to which methods are the best for use in the specific context; specifically, they look for methods that will help answer the research questions effectively. Sometimes, more than one method may be suitable to address a research question; however, researchers strive to choose the best method that they believe will be most useful to answer the research questions. As Njie and Asimiran (2014) explained,

> It lies bare that the choice of the research method employed to conduct research is grounded strongly on what is sought to be known, the thrust from which it wishes to be known and the depth the issue is chosen to be dug. (p. 35)

For this thesis, the researcher looked into different possible methods for conducting the research. For example, one of the possible methods under consideration was the case study, which can be defined as "an intensive study of a single unit for the purpose of understanding a larger class of (similar) units" (Gerring, 2004, p. 342). According to Tellis (1997), this approach is "an ideal methodology when a holistic, in-depth investigation is needed" (p. 1). Moreover, Hartley (as cited in Njie & Asimiran, 2014) explained some of the criteria of a case study as follows: it "consists of a detailed investigation, often with data collected over a period of time, of phenomena, within their context" (p. 36).

At this initial stage of exploring the concept of a digital Waqf library, it was deemed that a case study method would not be the best choice. As explained above, given the nature of a case study, this approach requires an intensive, detailed and in-depth investigation over a period of time . Since Waqf libraries are still in the initial stage of transforming to the digital world, the employees who work at Waqf libraries are not experts in Waqf and this thesis aims to investigate the digital transformation in all existing types of Waqf libraries in Mecca and Medina, the case study method was excluded from the possible options.

 At this stage of exploring the concept of digital Waqf libraries, spending a period of time in Waqf libraries will make no difference in acquiring the needed information the researcher is seeking from the different Waqf libraries; instead, a simple semi-structured interview, which can be conducted during the course of a quick visit, will be sufficient. Moreover, since some of the Waqf libraries that will be visited are family Waqf libraries, it is difficult to apply the criteria of a case study within a family Waqf library, such as spending a long period of time in those libraries, because the libraries are usually located within people's homes. Moreover, at this initial stage and after visiting Waqf libraries, the researcher will need to acquire information from Islamic scholars via interviews; therefore, a case study is not applicable within this setting. However, future studies could use the case study method as digital Waqf libraries start to emerge, be recognised and regulated. Case studies could be used to focus on one type of digital Waqf library at a time, such as a mosque or family Waqf library.

Therefore, to conduct this thesis and answer its research questions, it was deemed that a mixed-methodology approach involving desk research, field visits to Waqf libraries in Mecca and Medina and interviews would be appropriate. Using mixed methods is common in many

different fields. As Heyvaert, Hannes, Maes and Onghena (2013) explained, "Studies combining qualitative and quantitative research elements are now regularly conducted in several subdomains of the social, behavioral, health, and human sciences" (p. 302). Hence, desk research was performed, which then led to the need to conduct two main sets of interviews—one with caretakers of Waqf libraries in Mecca and Medina and the other with Islamic scholars. Given the lack of published information available, interviews were considered the most appropriate tool for collecting data to understand the current digital library practices in these libraries and to gain insights from an Islamic viewpoint.

Ultimately, two sets of semi-structured interviews were performed. One was conducted with caretakers of the Waqf libraries in Mecca and Medina during a field visit to collect data about these libraries and their current digital practices. The other was conducted later with Islamic scholars to address the issues revealed by the visit to the Waqf libraries in Mecca and Medina.

Mixed methodology approach

This thesis adopted a mixed methods approach, combining field visits and interviews to explore both the theory and practice of applying digital methods in Waqf libraries. Tashakkori and Teddlie (1998) defined mixed methods as 'Studies that are products of the pragmatist paradigm and that combine the qualitative and quantitative approaches within different phases of the research process' (p. 19). John Creswell (as cited in Johnson et al., 2007) defined mixed methods as:

> Mixed methods research is a research design (or methodology) in which the researcher collects, analyzes, and mixes (integrates or connects) both quantitative and qualitative data in a single study or a multiphase program of inquiry. (p. 119).

Moreover, Johnson et al. (2007) proposed a definition of mixed methods as:

> Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research

approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration (p. 123).

The interview questions included both quantitative and qualitative questions. Since both types provide valuable data (Pickard 2013), this study employed quantitative questions to elucidate current library digitization practices while relying on qualitative data to explore the ways libraries are and should be applying Waqf law to digital content.

The thesis questions are difficult to answer with quantitative data; therefore, the majority of the interview questions and all of the interview questions with the Islamic scholars were be qualitative. Regarding answering the thesis question, a deep understanding of the Waqf laws in general and the current digital practices employed within Waqf libraries is required. This strategy will ultimately enable us to understand and define the concept of digital Waqf libraries. Using mixed methods in research to lean more on one side than another (qualitative vs. quantities) or even use an equal usage of both is not unusual. Figure 9A shows different types (groups) of mixed methods in research (Johnson et al., 2007, p. 124):
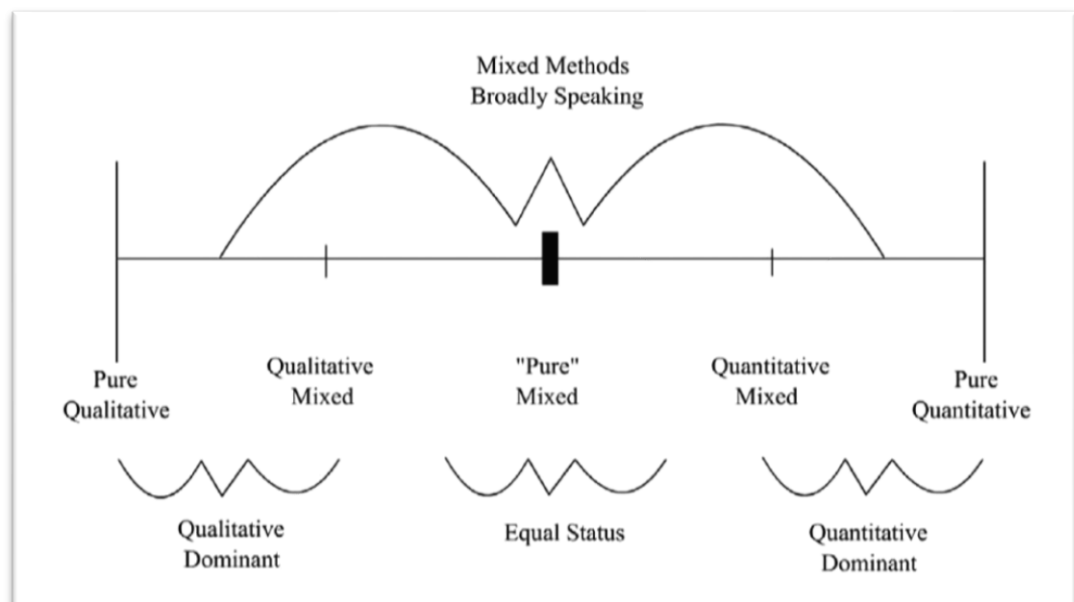
Figure 9A. Three different types of mixed methods research, as presented by Johnson et al. (2007, p. 124)

Therefore, this thesis adopted a qualitative dominant mixed methods approach, as defined by Johnson et al (2007), because while there have been localized efforts to digitize Waqf collections, the practice has yet to be codified and accepted by both Islamic scholars and librarians. Therefore, qualitative methods were used to explore the theory behind digital content within Waqf while quantitative methods were used to evaluate the degree to which digitization has already occurred, as it is believed that this approach is the best to utilise in answering the thesis questions. Johnson et al. (2007) explained the meaning of qualitative dominant as:

> Qualitative dominant mixed methods research is the type of mixed research in which one relies on a qualitative, constructivist-poststructuralist-critical view of the research process, while concurrently recognizing that the addition of quantitative data and approaches are likely to benefit most research projects. (p. 124).

Merriam and Tisdell (2016) defined the qualitative approach as "a type of research that encompasses a number of philosophical orientations and approaches" (p. 19). The qualitative approach is associated with inquiries, such as 'how?' or 'why?', and such questions will provide adequate data to answer the thesis questions (Pickard, 2013).

The interview questions for the caretakers of the visited Waqf libraries included some quantitative questions; the generated quantitative data were related to factors, such as the size and types of those libraries' collection and digitising status. Those data are important, enrich the thesis and provide interesting factual information about Waqf libraries, they are also an indication of an emerging trend of using technology within Waqf libraries; furthermore, those data show a gap in the literature on how to address and deal with the complications and issues that may arise from employing such technologies within the Waqf libraries context.

Interviews are widely used in the field of library and information science (Pickard, 2013, p. 195). Interviews were used to acquire facts about the current status of Waqf libraries in Mecca and Medina in terms of the employing of digital practices within their Waqf context and to acquire answers from Islamic scholars on how to address issues and complications that may arise from such employment. As Pickard (2013) states, "we interview when this is the most appropriate way to access the data we need" (p. 196). Due to cultural reasons, interviewing the caretakers of the visited Waqf libraries in person, face to face, enabled the researcher to acquire more information compared to that through email or telephone. Semi-structured interviews were selected; semi-structured interviews are flexible and provide participants with the freedom to expand on their answers. Semi-structured interviews can be defined as follows:

> A verbal interchange where one person, the interviewer, attempts to elicit information from another person by asking questions. Although the interviewer prepares a list of predetermined questions, semi-structured interviews unfold in a conversational manner, offering participants the chance to explore issues they feel are important. (Longhurst, 2003, p. 143).

Cohen and Crabtree (2006), in addition to emphasising that semi-structured interviews can produce reliable qualitative data, stated that in semi-structured interviews, the interviewer uses a set of questions and topics as a guide. The first group of interview participants consisted of caretakers who work at the Waqf libraries in Mecca and Medina. The second group consisted of Islamic scholars who were not working at the Waqf libraries in Mecca and Medina or otherwise directly related to these institutions. Each group offered unique insights; thus, interviewing both groups helped yield a highly comprehensive understanding of the central concept and thereby supported this work's practical endeavours.

The caretakers of Waqf libraries provided updated information on the current digital practice of their Waqf libraries and what possible issues and conflicts may have arisen from applying technology within the context of Waqf. Their interviews revealed how these libraries operate and illuminated how they are different from other libraries, such as academic and public libraries. In turn, the interviews with Islamic scholars provided useful advice on the creation of

a digital Waqf library that would be regulated by Waqf laws and provided answers and advice on how to handle Waqf rules and guidelines in the digital world from a library perspective.

Given that part of this thesis concerns a religious perspective, specifically Waqf laws, the researcher, or even the Waqf libraries' caretakers, cannot answer any controversial questions related to the Waqf nature of a digital library; only publicly recognised Islamic scholars can answer these questions. Therefore, in addition to interviewing the main caretakers at each Waqf library, the researcher also interviewed two well-recognised official Islamic scholars. Pickard (2013) stressed that "interviews are usually used ... when the nature of the data is too complicated to be asked and answered easily" (p. 196). This issue is the case with Waqf libraries, which are complex by nature.

Semi-structured interviews were conducted with both groups of participants. The interviews with the librarians were exploratory. The aim was to obtain a broad understanding and insight about the libraries, their current digital practices and any possible Waqf conflicts. This information was then used as a basis for the interviews with the Islamic scholars.

The information gathered via interviews can be about the interviewees themselves or the interviewees' experience with, or interest in, a topic. The information can also be information that only the interviewees possess (Odum and Jocher, 1929). For this study, the first set of interviews was used to acquire facts that only the interviewees possessed; the aim was not to acquire the caretakers' opinions. Accordingly, it was explained to the first set of interviewees that the aim was only to acquire accurate information and facts about the current Waqf and the digital status/practices of their libraries. This strategy would allow the researcher to mainly investigate and identify the possible conflicts and issues that may arise from employing technology within the context of Waqf/Waqf libraries. By contrast, the second set of interviews with Islamic scholars aimed to elicit the scholars' opinions on Waqf issues, as their opinions could help in creating an understanding of the emerging concept of a digital Waqf library.

Summary

The overall methodology of this thesis involved the following broad stages:

- Desk-based research and planning in the UK.
- A field visit to Waqf libraries in Mecca and Medina in Saudi Arabia to gather data through observations and interviews with libraries' caretakers.
- Interviews with Islamic scholars.
- Analysis of the data.

Desk-based research

The purpose of the desk-based research was to look for resources and any available up-to-date information, online or in print, regarding the current status of Waqf libraries in Mecca and Medina, both in terms of their existence and current digital practices. The literature review does report on sources that discuss Waqf libraries in Mecca and Medina throughout history. However, no up-to-date resources or guides emerged during the desk-based research that gave information or contact details regarding the existing Waqf libraries in Mecca and Medina. This information is key to investigating the possible existence of a digital Waqf library and whether Waqf libraries in Mecca and Medina have gone digital.

The desk-based research included searches via several online databases and websites that were deemed likely to have information and resources. Those databases included LISA (ProQuest), LISTA (EBSCO), *ALMANHAL* (an Arabic database), *AskZad* اسك زاد(an Arabic database), *DarAlmandumah* دار المنظومة(an Arabic database), and *Al Jamea* الجامع(an Arabic Islamic database).

Websites were examined with the potential to contain useful information about Waqf libraries today in Mecca and Medina, such as the website of the General Authority for Awqāf in Saudi Arabia; King Fahad National Library in Saudi Arabia; and the Ministry of Islamic Affairs, *Dawah*, and Guidance in Saudi Arabia. However, no useful outcomes arose from this examination process either. For example, as the literature review notes in the Saudi Arabia section, the official national library of Saudi Arabia, King Fahad National Library, has a website with a service that allows users to search for existing libraries in Saudi Arabia – a libraries directory. Through this directory, one can search for libraries by name, type, or city.

However, when searching by library type, the list displays only the following five options (see Figure 9): national libraries, school libraries, special libraries, university libraries, and public libraries. Waqf libraries are not listed, and therefore not even this resource can indicate the official, current number of Waqf libraries in Saudi Arabia, let alone where those libraries exist in Mecca and Medina specifically.

It appears that Waqf libraries in Mecca and Medina are yet to establish and develop an online presence, as some Waqf libraries in Mecca and Medina were only recently established. For example, the King Abdul-Aziz complex for Waqf libraries was established in 2016 in the holy city of Medina by a royal order from King Salman. However, searching for websites and contact details revealed no other information online about this complex, or about any other Waqf libraries in Mecca and Medina.

Given the absence of information online, a field visit to Mecca and Medina was necessary in order to investigate the current existence of Waqf libraries and their digital status and current practices. By visiting the libraries known to exist, and conducting interviews with lead caretakers, vital information was acquired about both these known libraries and any other Waqf libraries not present online. The visits gave an opportunity to witness Waqf libraries in real life, which helped in understanding how Waqf libraries are distinct from other types of libraries. This field research thus directly served one of the main aims of this thesis, namely, to investigate the digital status and current digital practices of Waqf libraries in Mecca and Medina. Ultimately, the field research in Mecca and Medina served two main purposes. The field visit further allowed the researcher to develop an up-to-date catalogue/guide of the current existing Waqf libraries in Mecca and Medina.

Field visit process

A field visit was conducted to the Waqf libraries in Mecca and Medina to observe and conduct semi-structured interviews with the caretakers of each of these Waqf libraries to acquire the qualitative and quantitative data needed to answer the research questions. The field visit aimed to examine the existing Waqf libraries in Mecca and Medina, investigate their current digital

practices, and identify any possible issues and conflicts that might arise from employing technology within the context of a Waqf library.

The field visit and semi-structured interviews were necessary because there was no online presence of Waqf libraries in Mecca and Medina through which this researcher could contact them to acquire necessary data. Moreover, no updated information or guide currently exists regarding the Waqf libraries in Mecca and Medina. Further, some Waqf libraries were perhaps newly established, making it even more difficult to find information about them online or even in the literature. This made it necessary to visit the Waqf libraries in these two cities to conduct in-depth observations and interviews regarding the current practice. In particular, visiting the libraries enabled data to be gathered about Waqf library collections, observe digital practices, and discuss these practices with the experts employed at these institutions.

Since there is yet an official updated comprehensive list of the names, location, and contact information of the main, currently existing Waqf libraries in Mecca and Medina, a projected list of the possible existing Waqf libraries in Mecca and Medina was created. This list included libraries that might still exist using resources such as Hmadi (1996), Moftie (2003), Alshangity (2015), and Saati (1996). As some Waqf libraries mentioned in the literature could have moved to different locations, or might no longer exist, various government agencies were also contacted (for example, the Saudi Ministry of Islamic Affairs and Dawah and Guidance, the General Presidency for the Affairs of the Grand Mosque, the Prophet's Mosque under the Saudi General Authority of Awqāf [plural of Waqf], and the King Fahad National Library); these agencies provided further information on the existence and locations of Waqf libraries in Mecca and Medina, particularly for new Waqf libraries that had been launched in recent years. Eight libraries were identified using this method: three in Mecca and five in Medina[9]. Six of those Waqf libraries were under the supervision and management of governmental agencies,

---

[9] It is commonly known that in Mecca and Medina there are many small libraries that exist within the different small mosques in Mecca and Medina, the researcher did not include them in his visit as they do not meet the minimal components of a digital library as defined in Chapter 2. Therefore, they were not deemed beneficial or able to provide the researcher with the data needed to answer the research questions. The researcher instead focused on locating and visiting the main active Waqf libraries in the two cities.

and two were private family Waqf libraries. The Waqf libraries visited during this research are:

1. Makkah Al Mokaramah Waqf Library (مكتبة مكة المكرمة), Mecca.
2. AL Haram Al Makey Al Sharef Waqf Library (مكتبة الحرم المكي الشريف), Mecca.
3. Al Masjed Al Nabawi Waqf Library (مكتبة المسجد النبوي الشيف), Medina.
4. King Abul-Aziz Complex for Waqf Libraries (مجمع الملك عبدالعزيز للمكتبات الوقفية), Medina.
5. Umm Al Qura University Library (مكتبة جامعة ام القرى), Medina.
6. Islamic University Academic Library (مكتبة الجامعة الاسلامية), Medina.
7. Al Busati Waqf Library (مكتبة ال البساطي), Medina.
8. Muzhar Al farouqi Waqf Library (مكتبة مظهر الفاروقي), Medina.

Before visiting these libraries, the researcher (through his employer) prepared formal letters explaining his intent to visit and collect data. The letters were provided by the researcher's employer (the funder of the research) and clarified to the institutions the researcher's intentions in visiting the libraries and conducting interviews. The letters provided contact details as well. The way in which the letters were delivered differed. Those sent specifically to the Waqf libraries that were under the supervision of government entities (libraries 1–3) were sent directly from the researcher's employer by mail. This process was important as in Saudi Arabia, government employees (in this case, the ones who work in the Waqf libraries under government supervision) would be more cooperative in conducting interviews and providing the needed information if addressed formally prior to the researcher's visit. The letters for the rest of the libraries (libraries 4–8) were delivered by the researcher upon visiting. The researcher acquired the formal letters from his employer (the funder) and not from the university because of the language required. Namely, the main language used in these libraries is Arabic; therefore, the researcher needed the formal letters to be in Arabic. That requirement was more easily met by the researcher's employer.

Later, the researcher was contacted back by each library and scheduled appointments for each library to visit and conduct interviews. Upon arriving to each Waqf library, the researcher introduced himself and explained his thesis and the kind of information he was looking to collect. The researcher also provided a consent form for each interviewee to read and sign (all

interviewees signed the form). During each visit, the researcher additionally asked for permission to photograph the library and some of its contents. All libraries were cooperative and provided the researcher with the data required.

In Makkah Al Mokaramah Waqf Library (مكتبة مكة المكرمة) the researcher was subsequently contacted via cell phone by the library manager, Mr Yousef Alsoubhi, who welcomed the visit and scheduled a date and time for the second visit.

Al Haram Al Makey Al Sharef Waqf Library (مكتبة الحرم المكي الشريف) is a Waqf library of the holy mosque of Mecca; in this case, the researcher visited after scheduling a date to conduct the interview with the vice manager, Mr Osama Alhazmi.

In the academic library of Umm Al Qura University (مكتبة جامعة ام القرى) in Mecca, which holds numerous different Waqf libraries, the library manager, Dr Mohammed Allohaibi, was welcoming and instructed the employees to help the researcher. The researcher scheduled a meeting to conduct the interview with Mr Mohammed Alrabge, who is one of the library's main librarians.

The King Abul-Aziz Complex for Waqf Libraries in Medina (مجمع الملك عبدالعزيز للمكتبات الوقفية) is a newly created complex containing more than 30 old Waqf libraries. In this case, the researcher delivered an official letter to the complex, which had restricted access due to having been only recently founded. At the time of the research, the complex was still in a transition period as it underwent relocation. The employees gave the researcher the email address of the library manager, Dr Hassan Alsurihi, and the researcher asked him, via a letter attached to an email, for permission to visit and conduct an interview. Dr Alsurihi responded warmly and welcomed the researcher to contact an employee, Mr Majed Aloufi, to schedule a meeting with him for the interview and a visit to the complex.

Al Masjed Al Nabawi Waqf Library (مكتبة المسجد النبوي الشريف), the Waqf library of the holy mosque in Medina, after receiving the formal letter, had the library's assistant contact the researcher and inform him that the manager, Mr Rashied Alrefeaie, would be happy to meet to provide data and give an interview. The researcher was given an appointment date.

In the Islamic University Academic Library (مكتبة الجامعة الاسلامية), which holds numerous Waqf libraries, the researcher was permitted to visit the library. On that visit, the researcher met the library director, who kindly received the official letter. The researcher then scheduled a day to visit the library and conduct the interview with the vice manager of the library, Mr Ahmed Attallah.

The Al Busati Waqf Library (مكتبة ال البساطي) is a family Waqf library in Medina that is established in a community member's home. Given the nature of this private Waqf library, it was not possible to walk in to deliver the official letter in person. Therefore, the researcher obtained the telephone number of the manager (keeper) of the Al Busati Waqf Library, Mr Bakur Busati, and called him to explain the work and request an opportunity to visit their library and possibly conduct an interview. Mr Busati was very welcoming and scheduled a meeting for this purpose at the library.

The Muzhar Al Farouqi Waqf Library (مكتبة مظهر الفاروقي) in Medina is also a family-owned Waqf library established in a community member's home. Due the nature of this private Waqf library, it was once again not possible to walk in and provide the official letter in person. Therefore, the researcher acquired the telephone number of one of the managers (keepers) of the Al Farouqi Waqf library, Mr Omar Al Farouqi. The researcher called Mr Al Farouqi, explained the work, and requested an opportunity to visit their library to collect data and conduct an interview. Mr Al Farouqi also granted this and scheduled the visit.

Developing interview questions for Waqf libraries' caretakers

For the interviews with caretakers, the researcher prepared a list of semi-structured questions (see Appendix (A) for the full list of questions). The questions mainly aimed to investigate the existing Waqf libraries in Mecca and Medina and their different types, history, collections, and current digital practices. These questions were divided into three parts:

Part 1: questions concerned the Waqf library itself. These questions asked about the formal names of the library, the type of Waqf library, how the library was founded and why, the original location of the library, and the physical access to the library. This part thus aimed to gain initial insights into the libraries.

Part 2: questions were about the Waqf conditions associated with the Waqf library. This part aimed to gain information that could later support an investigation of how these conditions affect different aspects of the library, such as access to its collection and how strictly rules are enforced.

Part 3: questions formed the core of each interview. These questions related to the current digital practices and status of the library. This part included questions about the existence of digital collections and digital versions of Waqf libraries, the current status and reasons for digitising, and digital access. This important part provided the information base necessary to compare digital Waqf libraries, or digital Waqf library practices, with the current laws of Waqf.

Religious interviews

The interviews with the Islamic scholars is a separate step that comes after the concluding the field visit to Waqf libraries in Mecca and Medina. After reviewing the information on the concept of Waqf and Waqf libraries and that of digital libraries in the literature review, as well as after investigating the current traditional and digital practices taking place today in Waqf libraries in Mecca and Medina, the researcher identified a set of topics, issues, and inquires that cannot be answered by librarians or by the data collected from the field visit. Rather, they need to be addressed by acquiring fatwas and opinions from Islamic scholars, which will ultimately aid in allowing the researcher to answer the main research question.

The aim of interviewing Islamic scholars was not to understand how Waqf in general can exist in the digital world. The researcher did ask the Islamic scholars about this topic, but just to determine if studies had been conducted in this field, as this topic is vast and requires a specialised Islamic expert to understand it. Rather, the aim was to acquire their expert Islamic opinions regarding challenges relating to the existence of digital Waqf libraries. The researcher decided to interview two recognised Islamic scholars from Saudi Arabia who specialise in the concept of Waqf. The reason for choosing two Islamic scholars is trying to find common ground, provide more credibility to the thesis, and as an opportunity to gain a greater understanding of how Waqf can exist in the digital world.

Developing the interview questions for Islamic scholars

The researcher aimed to seek fatwa and solid Islamic opinions that can provide answers and insight regarding the complicated nature of the questions regarding the concept of a digital Waqf library. In the interviews with the Islamic scholars, the researcher designed the interview questions mainly based on potential complications that could occur with a Waqf digital library, for example, the possible complications outlined in the literature review section on digital libraries, and those revealed in the investigation of the current digital practices in Waqf libraries in Mecca and Medina. The questions for Islamic scholars also aimed to clarify the laws and legal steps that must be met or taken to register a digital library as a Waqf. The complications that may result from combining the current rules of Waqf with the definition and nature of digital libraries are introduced in the literature review. See Appendix (B) for the full list of questions prepared for the semi-structured interviews with the Islamic scholars.

The researcher searched for two recognised Islamic scholars who specialise in the concept of Waqf and were willing to sit for an interview. The initial step was to create a list of potential interviewees and email them. That list was compiled by accessing the websites of Islamic departments in different universities in Mecca and Medina to acquire the emails of possible candidates. Moreover, the website of the non-profit organisation *Waqef Center* gives a suggested list of expert consultants in Waqf; the researcher also emailed number of these individuals.

In the email, the researcher introduced himself and explained his project and the details of the interviews and how they would be conducted. The researcher also attached a consent form (the same form given to librarians with only the purpose of the interview changed); this form explained the aim of the interview and gave potential participants the option to choose whether they agreed to the interview, and if so, whether they agreed to be voice recorded. The researcher stated in the emeil as well that it would be preferable if the research could note the scholar's name and position. This information is important, because when giving an opinion on Islamic matters, the general public is often reluctant to accept the opinion of an anonymous source.

The consent form also provided interviewees with the option of choosing whether they would prefer to remain anonymous. Notably, the initial plan was that the researcher planned to visit in person the Islamic departments of universities in Mecca and Medina and to visit the non-profit *Waqef Center*; however, due to the COVID-19 pandemic, these visits were not possible. Ultimately, two Islamic scholars agreed to conduct the interviews. The first interviewee was Dr Amir Bahjat, and the second Islamic scholar was Dr Hamed Merah.

Each Islamic scholar offered some unique insights, as each scholar had encountered different experiences related to Waqf and had reviewed different cases related to the registering of non-typical assets as a Waqf. Since the concept of a digital Waqf library is yet to be established and widely recognised as a practice in Saudi Arabia, each interview with a knowledgeable Islamic scholar was rich and informative.

Summary of the conducted interviews

In total, ten interviews were conducted for this thesis, eight are caretakers of the eight Waqf libraries visited in Mecca and Medina, and two are recognised Islamic scholars (see Table 3 for details). All interviewees signed a consent form agreeing to the interview, to the recording of the interview, and to having their real names and any interview data used in the study.

Table 3

Interviewee Information.

Interviewee	Position/expertise	Date, time, and location of interview
Mr Mohammed Alrabge	Lead librarian at Academic Library of umm Al-Qura University	17 April 2019 at 9:30 a.m. at the library in Mecca
Mr Ahmed Attallah	Lead librarian at the Academic Library of the Islamic University	21 March 2019 at 9:30 a.m. at the library in Medina
Mr Yousef Alsubhey	Director of Makkah Al Mukaramah Waqf library	20 March 2019 at 9:30 a.m. at the library in Mecca
Mr Osama Alhazme	Deputy director of Al Haram Al Makkey Al Shareef Waqf library	26 March 2019 at 9:30 a.m. at the library in Mecca
Mr Rashed Alrefaie	Director of Al Masjed Al Nabawi Waqf Library	14 April 2019 at 6:30 p.m. at the library in Medina
Mr Majed Al Ofei	A lead librarian at King Abul-Aziz Complex for Waqf Libraries	25 April 2019 at 10:30 p.m. at the library in Medina
Mr Bakor Busati	Family member and current caretaker of the Al Busati family Waqf library	22 April 2019 at 7:30 p.m. at Mr. Al Busati's home, where the library is located, in Medina
Mr Omar Al-Farouqi	Family member and current caretaker of the Al Farouqi family Waqf library	22 April 2019 at 9:30 p.m. at Mr. Al Farouqi's home, where the library is located, in Medina
Shaikh Dr Amir Bahjat	Islamic Scholar PhD in Islamic jurisprudence (*Fiqh*)	23 August 2020
Dr Hamed Merah	Islamic Scholar PhD in comparative Islamic jurisprudence (*Fiqh Mukarn*)	27 September 2020

Seeking Islamic fatwas and opinions

Some might wonder why seeking fatwas and Islamic opinions and what it means when gaining a fatwa and Islamic opinion regarding any issue in life. Are we (as Muslims) obligated to that fatwa or opinion? Are we allowed to follow another fatwa or opinion that might be in a conflict with others? The next section will briefly explain Islamic fatwas and opinions.

The interview with the Islamic scholars aimed to acquire fatwas and Islamic opinions that addressed the inquiries and questions presented by the thesis, which were a result of the investigation of existing digital practices in Waqf libraries in Mecca and Medina, along with what was found in the literature review on the concept of Waqf and that of a digital library. These fatwas and opinions helped the researcher in his aim to explore the concept of a digital Waqf library. In order to demonstrate the significance of these interviews in understanding digital Waqf libraries, it is important to understand why the researcher is seeking fatwas and Islamic opinions.

The process of seeking a fatwa is called *Istifta*, which simply means 'to inquire'. However, this term, in an Islamic context, means to request an opinion on legal and religious matters (Masud, 2009). The person seeking a fatwa is called the *Mustafti* (the researcher), and the Islamic scholar providing the fatwa is the Muftī. Dalvi (2018) explains how a fatwa is created: "a Juristic Fatāwā is typically issued by a jurist in accordance to his understanding of the primary sources (i.e. the Qur'ān and Sunnah)" (p. 6). Moreover, a fatwa can be defined as "a non-binding legal opinion or ruling given by a recognised Islamic legal specialist" (Black and Hosen, 2009, p. 407). Because this thesis is concerned with regulating the concept of a digital Waqf library, which is controlled mostly by the Islamic laws of Waqf, it is logical to seek fatwas and opinions from Islamic scholars on how to regulate the new concept from the Waqf side, as the purpose of donating a Waqf digital library is mainly for religious reasons.

A fatwa tends to be issued based on the Mustafti's inquiries and questions, then the Muftī will issue an Islamic judgement clarifying what is permitted or not and give advice and guidance to respond to inquiries (Dalvi, 2018). Moreover, Masud (2009) explains that "istiftā is a medium which is used frequently to raise questions about new social practices whether they could be

assimilated into the Islamic tradition, and about how conflicts between social and legal norms could be reconciled" (p. 348). In terms of the role of fatwas in addressing modern trends, as is the case of this thesis, Black and Hosen (2009) explain the following:

> Fatwas also have a long-standing role in the legitimisation of new social and economic practices. The topics in the Qur'an did not include modern issues such as insurance, corneal transplant, banking and family planning, to name but a few, and Muslim scholars have to issue fatwas, by analysing the core values of the Qur'an and the Sunnah, in order to deal with modern problems. For example, in the Ottoman Empire, a fatwa was issued in 1727 authorising the printing of non-religious books; vaccination was declared legitimate in an 1845 fatwa; and several fatwas were used to legitimise low interest rates, selling on credit and the practice of establishing cash Waqf (endowment) (pp. 412–413).

The process of seeking fatwas can be about all aspects of the Islamic religion, though they may also be used to investigate new trends not addressed specifically in the Quran or Sunnah but affecting our lives. Therefore,

> the situation changed with the advent of the new media. The position of *Fiqh* was now elevated by calling it *Sharī'ah*. Muftīs were more frequently consulted not only on purely religious matters, but also about marriage, divorce, inheritance, commercial, and other matters. Some of these questions lay in the jurisdiction of the courts (Masud, 2009. p. 363).

In a country where there are several qualified muftīs and Islamic scholars, the general public is permitted to direct their questions and inquiries to whomever they believe is the most qualified to give fatwa and opinion into their matters, and this is the saying of Jomhor Al Alama (the majority of the main Islamic schools) (Alshiban, 2015).

Because this thesis aims to bring together the concept of a digital library, which is affected by civil laws such as copyright, and the concept of Waqf, which is affected by religious law,

seeking fatwas and Islamic opinions was deemed the most appropriate way to form a base that can be used by the researcher to investigate the concept of a digital Waqf library. Black and Hosen (2009) explain that "Fatwas can act as beacons of guidance through the challenge of adhering to two sets of laws: those of religion and those of the nation" (p. 407).

Even though this research determined which questions need to be asked to explore the concept of a digital Waqf library, which should be based on the fatwas that the researcher sought, fatwas are not only directed and followed by the inquirer; they can be used and followed also by other people other than the inquirer: "the fatwa issued in response to the submitted question may also be published or disseminated in some form to the wider Islamic community. In this way, a fatwa gives guidance to the individual questioner whilst its dissemination educates, informs and guides others" (Black and Hosen, 2009, p. 408).

Upon asking fatwas and opinions from more than one Islamic scholar, the outcomes might be that the answers of the fatwas are the same among Islamic scholars, or there could be a disagreement between the fatwas and opinions, which is common. If there is an agreement within the requested fatwas and opinions, the Mustafti should follow the outcomes of the fatwas and opinions and not act against them (Alshiban, 2015). However, it is common that fatwas and opinions on new life trends differ, as Masud (2009) explains, "disagreement among the jurists was natural; even within the *madhhab* difference of opinion existed" (p. 361). Therefore, even within the same *Madhhab* (Islamic school), there may be disagreements. Another reason for which a fatwa and opinion would differ among Islamic scholars is that a,

> muftī would generally issue fatāwā in accordance with the school of thought
> they had gained some form of mastery in … As a result, a single query would
> receive vastly different edicts due to varied interpretations of the Qur'ān and
> Sunnah by scholars of their school of thought (Dalvi, 2018, pp. 34–35).

In the case of disagreements among the Fatwas and opinions, the Mustafti has the option of prioritising one among the others based on the qualification of the Islamic scholar, who is believed to be the most knowledgeable (Alshiban, 2015). However, if there is a difference between the offered fatwas and opinions, there has been considerable discussion on what

should be done. Alshiban (2015) references 14 different rules on how a person should act in case of a disagreement among fatwas.

The importance of understanding the position of the Mustafti in case of disagreement between the Islamic fatwas and opinions, it should be clear that fatwas are not binding and that the opinions that the researcher provides later in the thesis should be considered as one way of navigating any differences that may exist between the fatwas and opinions that were collected during this research. Therefore, readers may seek other fatwas, from other scholars, in other Islamic countries, who might give different opinions that result in the creation of a different model or framework to regulate a digital Waqf library, as Masud (2009) explains, "The Adab al-Mufī manuals continued to insist that in case of conflicting fatwas, the mustafti was free to choose one of them" (p. 361). This thesis aims to primarily advise regulators and Waqf libraries in Saudi Arabia and sought fatwas and opinions from Islamic scholars from Saudi Arabia, which are known to follow the Hanbli Islamic school.

In the case of the disagreement between Islamic scholars, one scholar's opinion does not void the other. Black and Hosen (2009) clarify that,

> the ruling of one scholar arrived at by means of ijtihad (independent legal reasoning) is not reversed by the ruling of another scholar also reached through ijtihad, in the absence of a clear text from the Qur'an or Hadith to determine the issue, and provided that neither decision violates any of the rules governing the propriety of ijtihad. Thus, the two decisions have equal authority (p. 414).

Ali and Maravia (2020), in *Seven Faces of a Fatwa: Organ Transplantation and Islam*, discuss seven fatwas regarding the Islamic position on organ donation (Ali & Maravia, 2020). However, Ali and Maravia (2020) point out that all of the seven fatwas should be considered as valid positions. Ali and Maravia (2020) explain further that "people are at liberty to choose whichever position suits their culture and belief systems" (p. 17),

Fatwas should only be given by recognised Islamic scholars, because they are a result of a deep understanding of the Quran and Sunnah, as well as comprehensive knowledge of Sharia

and Islamic laws and knowledge of the different opinions in general of the different four main Islamic schools (Black and Hosen, 2009). Adding greater clarity to the qualifications for a fatwa giver, Awass (2014) highlights six attributes that can be used to decide whether a person is qualified to give fatwa or not as follows:

1. Competence in the Arabic language because the sources of the law stem from Arabic literary sources (Qur'an, Sunnah, and previous legal judgements).

2. Knowledge of verses in the Qur'an that deal with legal injunctions as well as knowing those that are abrogated and whether those verses have universal or particular implications.

3. To have knowledge of the Sunnah (Prophetic practice).

4. The *mujtahid* must have knowledge of legal doctrines of past mujtahids so as not to promulgate fatwas that go against an established *ijma'* or consensus of previous jurists.

5. He must possess comprehensive understanding of the means of *qiyas* (legal reasoning) and the level of authoritativeness of legal proofs.

6. The *mujtahid* must be pious in order for his fatwas to have currency, although this is not an absolute pre-condition for the legitimacy of his *ijtihad* with reference to himself, even though others should not take from him unless he is pious (pp. 240–241).

In conclusion, the interviewees chosen for this research are both qualified to provide fatwas, in line with the attributes listed by Awass (2014). Although a single fatwa would have technically met the religious requirements for this research, the researcher sought a second fatwa due to the highly specialised and technical nature of this topic that relies on complexities of both curatorial and digital practice, and ultimately to try to find common ground, give a credible suggested model and framework that regulate the existence of a digital Waqf library.

Data analysis

Given the nature of the data collected during the site visits and interviews, qualitative techniques of analysis must be applied in order to analyse and understand that data., which includes the systematic categorising and sorting of interview transcripts and/or field notes, is to transform raw data into understandable and useable findings and results (Given, Williamson & Scifleet, 2017).

There are many different types of qualitative data analysis, such as grounded theory analysis, textual analysis, content analysis, etc. (Given et al., 2017). However, thematic analysis and category coding could be "considered the foundational approach to qualitative data analysis ... which is widely used by qualitative researchers, such as ethnographers, for the analysis of interviews and unstructured observation data" (Given et al., 2017, p. 455). The aim of thematic analysis is to look for patterns and themes that are interesting and considered important to ultimately address the research problem (Maguire & Delahunt, 2017, p. 3353).

Template analysis was used to thematically organise and analyse the raw qualitative data (Brooks & King, 2014). McCluskey, Brooks, Turley and King (2015) define template analysis as "a form of thematic analysis, which emphasises the use of hierarchical coding but balances a relatively high degree of structure in the process of analysing textual data with the flexibility to adapt it to the needs of a particular study" (p. 203). Cassell and Bishop (2019) state that "template analysis is a type of thematic analysis where the aim is to create an analytic template" (p. 198).

The template analysis method aims to develop a coding template that summarises and identifies themes that are deemed important by the researcher, followed by organising those themes in a useful way (Brooks & King, 2014) to show the relation between them. Notably, data that are involved in research studies using template analysis often come from interview transcripts (Brooks & King, 2014; McCluskey et al., 2015).

Template analysis is a flexible analysis method that can easily adapt to a particular study's needs; it is a "pragmatic technique which can be applied within a range of different qualitative research approaches" (Brooks & King, 2014, p. 3). Initial templates from the main key points

in the literature review were generated as a starting point. A deep analysis of the interview transcripts enabled the creation of major final theme templates, which were placed in the findings chapter. See Appendix A for initial and final themes.

All the interview transcripts were carefully and repeatedly read to look for themes and possible codes and patterns. It is important to note that the interviews with the librarians from Waqf libraries will have some descriptive information in terms of those libraries' Waqf status and digital status. By contrast, the interviews with Islamic scholars will entail deeper conversation to clarify the complex issues that are related to the concept of Waqf and a digital library. Such complex issues were observed after reviewing and understanding the concept of Waqf and the concept of a digital library, which both have been reviewed and explained throughout the literature review chapter. Hence, this process aims to ultimately connect the major findings that emerge from the interview transcripts.

The interview transcripts were manually analysed, given the small number of interviews in this thesis (ten interviews in total). Furthermore, the original interview data was in Arabic. To date, all computer software that analyses data does not support analysis of the Arabic language. Therefore, the final data that emerged after the manual analysis was translated into English for presentation in the findings chapter.

Ethics

Because this study employed interviews as a data collection technique, which involves interacting with humans, an ethical application was submitted to the Ethics Committee at the University of Glasgow, that explained the procedures and actions that would be taken to conduct safe and ethical interviews. Ethical clearance for this project was granted by the College of Arts Research Ethics Committee on the 2 February 2019, Ethics Application No. 100180100.

Within the submitted ethical application to the committee, the research explained in detail to the committee how he will conduct a safe and ethical interviews, some of those details are :

All participants are adults. The researcher will provide participants a consent form that will explain the aim of the interview and which will also include a brief description of the project as well. The participants will have the right to participate or to decline. In the consent form, the researcher will also explain to participants that they can choose to keep their identity anonymous. The location of the interviews will be at the interviewees' workplaces. Interviews will be held after acquiring the appropriate permission from the employer/manager.

In terms of data that is not in the public domain, the researcher will be recording the interviews and produce written manuscripts of the taped interviews. The consent form will notify participants that all recordings will be destroyed once a transcript has been generated, and all data (digital transcripts and recordings) collected from this interview will be stored on the University's secure network (One Drive) and will only be accessible by the researcher. And at the end of this project, the produced manuscripts will be saved on a secure laptop and password protected for five years. It is also explained in the consent form that the researcher will use the produced manuscripts for this PhD thesis as well as potential future publications.

Regarding issues of confidentiality and security, the consent form will allow participants to choose whether they want to disclose their real names and positions or remain anonymous,. The consent form will also explain that the researcher will only use the collected data (digital transcripts and recordings) for the purpose of this PhD thesis and, potentially, for future publications. Moreover, the researcher will store the data (digital transcripts and recordings) on a secure University's secure network (One Drive). Also, all recordings will be destroyed once a transcript has been generated by the researcher and approved by the researcher. At the end of this project, the produced transcript will be stored in a locked, password-protected laptop for five years.

In conclusion, this chapter presented the methodology and techniques that were used to conduct this thesis and answer the thesis questions. In the following chapter, the findings of the visit to Waqf libraries in Mecca and Medina, and of the interviews with the Islamic scholars will be presented.

Chapter 4: Findings

This thesis has two main subjects of interest: Waqf and digital libraries. Based on the research questions (see Chapter 1), this chapter presents the findings in the following order: first, the findings of the field visits to Waqf libraries in Mecca and Medina are described; the findings of the field visits offered insights into the current status and current digital practices in Waqf libraries in Mecca and Medina today. The next section draws on insights to illustrate and discuss the complications and difficulties that have arisen from adopting current digital practices in libraries with the laws of Waqf, as identified by the researcher, and illustrates how those difficulties could be addressed based on the results from the interviews with the Islamic scholars. Finally, the last section aims to apply the digital library framework (presented in the literature review) to the visited Waqf libraries in Saudi Arabia.

Outcomes of the visit to Waqf libraries in Mecca and Medina

The layout of this section is based on the final themes that were confirmed after conducting the interviews with the visited Waqf libraries caretakers. Initial and final themes can be found in Appendix A.

Types

Amidst the many different types of Waqf libraries that have been identified in scholarly literature, only four types of Waqf libraries were able to be identified in Mecca and Medina as of April 2019: public, private/family, mosque, and academic (see Table 4). Each of the eight visited Waqf libraries in Mecca and Medina represent one of these four types of Waqf libraries.

Table 4

Name, Type, and Locations of the Eight Waqf Libraries Visited in Mecca and Medina.

Library	Type of Waqf library	Location
King Abdul-Aziz Complex for Waqf Libraries	Public	Medina
Al Masjed Al Nabawi Waqf Library	Mosque	Medina
The Academic Library of the Islamic University	Academic	Medina
Al Busati Waqf Library	Family/private	Medina
Muzhar Al-Farouqi Waqf Library	Family/private	Medina
Makkah Al Mukaramah Waqf Library	Public	Mecca
Al Haram Al Makkey Al Shareef Waqf Library	Mosque	Mecca
The Academic Library of Umm Al-Qura University	Academic	Mecca

However, it is important to note that the classification of the Waqf libraries found as of March–April 2019 in Mecca and Medina, is based on how these libraries were being managed and who they served at the time of the researcher's visit. In addition, the eight Waqf libraries that represent these four main types of Waqf libraries are not technically eight distinct libraries. Rather, they are the eight main bodies of Waqf libraries that were found in Mecca and Medina. Some of these eight Waqf libraries host and take care of a large number of individual Waqf libraries that exist on the premises of these bodies. Moreover, some of the individual Waqf libraries within the eight main bodies may represent other types of Waqf libraries. For example, Al-Madares المدارس, and Rebat, الاربطة Waqf libraries. These Waqf libraries previously had other conditions that would have classified them as a different type of Waqf library.

As for why this structure has developed, the literature review explained that over history, some Waqf libraries have struggled to maintain themselves without outside support; these libraries required the help of local government or an outside authority to continue existing and honouring their Waqf status. As the Saudi Government became aware of these problems with Waqf libraries, public and mosque Waqf libraries were encouraged to host Waqf libraries within their premises in order keep the libraries safe and ensure they could maintain their Waqf status.

Some Waqf libraries that were visited, namely the two family/private Waqf libraries, were indeed only a single self-contained Waqf library. For the rest, the researcher acquired (where possible) the number and names of Waqf libraries that exist within the main Waqf library bodies. The results show that even though the researcher visited and identified only eight main Waqf libraries in Mecca and Medina, these eight libraries technically represent and hold more than 100 Waqf libraries, and as explained, some of those Waqf libraries could represent older types of Waqf libraries.

Table 5 shows the number of Waqf libraries per each main library body, where applicable. Appendix (M) provides the names that the researcher was able to acquire of the Waqf libraries that exist within the main bodies of the visited Waqf libraries.

Table 5

Actual Number of Waqf Libraries within the Visited Waqf Library Bodies in Mecca and Medina.

Library	Number of Waqf libraries
King Abdul-Aziz Complex for Waqf Libraries	34
Al Masjed Al Nabawi Waqf Library	Information not available at the time of the visit
The Academic Library of the Islamic University	2+ unknown smaller collections
Al Busati Waqf Library	1
Muzhar Al-Farouqi Waqf Library	1
Makkah Al Mukaramah Waqf Library	19
Al Haram Al Makkey Al Shareef Waqf Library	41
The Academic Library of Umm Al-Qura University	18

Regarding the academic Waqf library classification, the libraries visited were Waqf libraries that exist within the academic libraries of The Islamic University in Medina and Umm Al Qura University in Mecca. The classification academic Waqf library, in other words, refers to a Waqf library that exists within an academic library/institution but is kept separate from the general collection and has its own conditions.

As noted in the literature review, though many types of Waqf libraries appear in the literature, academic Waqf libraries are not among them; this study is thus, the first to propose this type of Waqf library. In this thesis, academic Waqf libraries are identified as such because those libraries operate under conditions that require them to serve within specific academic institutions. Similarly, *Maristanat* (مارستانات) Waqf libraries are placed in and serve hospitals. In short, each Waqf library's unique conditions are key to identifying the type of Waqf library. That said, mosque Waqf libraries are distinct in that they are public by default; when a donor wants to donate a library to a mosque, the donor has no right to impose any specific conditions. In the Islamic religion, all mosques belong to God (الله); therefore, nobody can define who should, or should not, benefit from a mosque Waqf library. As God said in the holy Quran in *Sort Al-Jinn* Chapter 72 Verse 18: وَأَنَّ الْمَسَاجِدَ لِلَّهِ فَلَا تَدْعُوا مَعَ اللَّهِ أَحَدًا [And the places of worship are for Allah (alone)].The following section outlines the background and contents of the Waqf libraries visited in Mecca and Medina.

Management

In the Literature review chapter we explained the role of *Nazir Al-Waqf* or the caretaker of the Waqf property. The visited Waqf libraries in Mecca and Medina had several individuals and sometimes even a governmental body or institution fulfilling the role of *Nazir Al-Waqf* / caretaker. Saudi Arabia has a specific governmental body that specialises in Waqf: the General Authority for Awqāf. Its mission is to manage, register, and organise all Waqf-related assets and matters in the country. It even offers to act as *Nazir Al-Waqf* for any Waqf property.[10] However, this body acts more as a consultant and a general supervisor to Waqf libraries at the moment, and each type of Waqf library is managed directly by different bodies as shown in Table 6.

---

[10] https://www.awqaf.gov.sa/ar/about-authority

Table 6

Varied Management of Waqf Libraries in Mecca and Medina.

Library	Management
King Abdul-Aziz Complex	Self-managed (government sector)
Al Masjed Al Nabawi Waqf Library	The General Presidency for the Affairs of the Grand Mosque and the Prophet's Mosque (government sector)
Academic Library of the Islamic University	Self-managed, government funded
Al Busati Waqf Library	Family members
Muzhar Al-Farouqi Waqf Library	Family members
Makkah Al Mukaramah Waqf Library	Ministry of Islamic Affairs, Dawah and Guidance (government sector)
Al Haram Al Makkey Al Shareef Waqf Library	The General Presidency for the Affairs of the Grand Mosque and the Prophet's Mosque (government sector)
Academic Library of Umm Al-Qura University	Self-managed, government funded

All the public non-Waqf libraries in Saudi Arabia, in contrast, are managed by the Ministry of Culture.11 However, even though Waqf libraries' management varies, if any problems or disputes arise, the managing bodies of those libraries can refer to the court to solve them.

The Waqf conditions for each library and how they are enforced can differ as well between the different types of libraries. Both public and mosque Waqf libraries are considered public Waqf libraries. Therefore, the four Waqf libraries in Table 4 that fall under these two categories, by default, both serve the general public and hence must serve everyone with no restrictions (based on the law of Waqf). However, since each Waqf library is managed by a different entity, even those four libraries operate differently. For example, two of the libraries restricted access to some of their collections based on the belief that these parts of their collection contain content that disrespects or goes against the Islamic religion. Some restrictions were also placed on borrowing physical books, which could not be taken outside of the library. Moreover, restrictions were placed on copying based on the copyright laws applied in Saudi Arabia. In short, even though these public Waqf libraries are meant to have no restrictions, restrictions were nonetheless found to be in place.

In terms of the private/family Waqf libraries, the two libraries in Medina each had their own conditions for who could benefit from their collection and how the collection was to be managed. Since those libraries are private family-owned Waqf libraries, the families have the right to self-manage them and determine how to provide the libraries' services (if any). The two Waqf libraries of Al Busati and Al Farouqi do provide different limited services, mainly to students and scholars. These libraries have the right to deny any requests or even overall access to the collection. Even though these two libraries are self-managed, they still must refer to the court if any problems or disputes arise, such as a need to relocate the library as in the case of the Al Faroqi Library, wherein the court assigned a specific judge to handle all their legal matters.

The two Waqf libraries that reside within the Academic Library of Umm Al Qura University and the Academic Library of the Islamic University are managed by the universities. The

---

[11] https://www.moc.gov.sa/ar/news/22502 – This page on the website of the Saudi Ministry of Culture indicates how the ministry is supervising and managing public (non-Waqf) libraries in Saudi Arabia.

conditions associated with these two Waqf libraries are that the libraries should serve students only. Some Waqf collections within those academic libraries have conditions; for example, some collections serve only the students of a specific major or college. Each university respects the conditions associated with each individual Waqf collection, and the universities have the right to deny access to people who do not fall within the specified beneficiaries.

Background and content

This section provides brief background information and some insights into the visited Waqf libraries in Mecca and Medina and their content. The information is presented based on the four types of Waqf libraries represented: public, private/family, mosque, and academic. The information in this section was acquired through the interviews with librarians/caretakers of each visited Waqf library (see Table 3 for more details on interviewees).

Public Waqf libraries

The researcher identified two out of the eight Waqf libraries as public: *Makkah Al Mukaramah* Waqf Library in Mecca and the King Abdul-Aziz Complex for Waqf Libraries in Medina. Both were identified as public Waqf libraries as they are open to the public.

Makkah Al Mukaramah Waqf library (مكتبة مكة المكرمة) and sometimes (unofficially) called the library of *Al Mawaled (المولد)* (the library of the place where the Prophet Mohammed is believed to have been born), is a public Waqf library in Mecca located next to the holy mosque of Mecca (see Appendix (G) for photographs of the library). The library was founded initially by Mr Abbas Qattan, who requested from King Abdulaziz permission to create a public library in Makkah near the holy mosque. In the year 1953, the court in Makkah issued an official document stating that this library was registered as a Waqf library. However, the actual official date that the library opened was in 1959. When the library was first established, it was called the Library of Al Sahafa Wa Alnasher [the press and publish]. After that, it was called Almakiah Library, as well as Makkah library.

Finally, it was called Makkah Al Mokaramah Library. In the beginning, the library was under the management of the Ministry of Press and Radio; in 1964, it fell under the management of the Ministry of Pilgrimage. Since 1993, it has been under the management of the Ministry of Islamic Affairs, Dawah, and Guidance. The library contains books, manuscripts, and magazines. It holds approximately 35,000 books and 1,520 manuscripts. It has two floors: the ground floor and the first floor. The library holds 19 different Waqf libraries in different rooms throughout these two floors. On the first floor, there is a room that holds only manuscripts. The names of the 19 different Waqf libraries within this library can be found in Appendix (M).

The King Abdul-Aziz Complex for Waqf Libraries in Medina is a public Waqf library newly established and founded by a royal order from King Salman (No. 389, dated 20/6/2016). See Appendix (J) for photographs of the library. The contents of the complex are comprised of the Waqf libraries and contents that had once been held at the now non-existent King Abdul-Aziz Public Library. Through royal decree, the contents and collections of the old King Abdul-Aziz Public Library were transferred to the new complex. The complex aims to serve and preserve Waqf libraries. Currently, the complex is situated in a temporary location pending the assignment of a formal location by the government.

The complex is set to be an independent body; however, it is still in the process of completing the legal process to achieve this status. The Ministry of Islamic Affairs is temporarily managing the complex until it gains full independence with support from the government. Because the complex is in a temporary location and still undergoing the legal process of becoming an independent body, library services and access to it will continue to be very limited until it moves to its new and permanent location.

The collections contain manuscripts, books, and artefacts. The complex holds 34 Waqf libraries (see Appendix [M] for the names of those Waqf libraries) that are kept in separate rooms. The complex holds around 14,000 manuscripts and 25,000 rare books, and it continues to receive further donations from other Waqf libraries.

As mentioned earlier, although these two institutions are classified as public Waqf libraries, each contain multiple Waqf libraries that may themselves represent different types of Waqf

libraries in a previous time. However, since these institutions are managed by the government now, any conditions that were perhaps associated with those individual Waqf libraries in the past are no longer applicable. Although these bodies have kept the Waqf libraries separate, all the individual Waqf libraries are public Waqf libraries as of March–April 2019. For further information and investigation into this case, there is a book published in 1998 by Almuzaini (1998) called *King Abdul-Aziz Library between the Past and the Present*; this book presents several the Waqf libraries and their type from among the libraries once kept within King Abdul-Aziz Public Library in Medina. The book is proof that some of the Waqf libraries that exist today within King Abdul-Aziz Complex used to be different types of Waqf libraries; specifically, the book mentions examples of Waqf libraries that originally were Al-Madares (المدارس) and Rebat (الاربطة) Waqf libraries. To preserve and honour Waqf libraries, the Saudi Government over time has integrated many Waqf libraries that were abandoned or could no longer be managed by the original caretakers into larger public Waqf libraries, thereby transforming those original Waqf libraries into public Waqf libraries as well, after gaining court permission.

Mosque Waqf libraries

Two mosque libraries were identified and visited: the *Al Haram Al Makkey Al Shareef* Waqf library (مكتبة الحرم المكي الشريف) and *Al Masjed Al Nabawi* Waqf Library (مكتبة المسجد النبوي الشريف). As explained earlier, mosque libraries are public Waqf libraries by default; the difference between them and other public Waqf libraries is that mosque Waqf libraries are always attached to or associated with a mosque.

The Al Haram Al Makkey Al Shareef mosque Waqf library is the library of the holy mosque of Mecca (see Appendix [H] for photographs of the library). It was initially very close to the holy mosque and within its perimeter. Over time, it has moved to different locations around the mosque. The current location of the library, in the area of Batha Quraish, is temporary. Though the current location is not very close to the holy mosque, the plan is to move the library back within the vicinity of the mosque in the future.

The library has had several different names since it was established. Its past names have included *Bayt Almahfozat* (بيت المحفوظات), *Dar Al Kotob Al Makkeiah* (دار الكتب المكية), and *Al

Maktaba Al Amiriah Al Amah (المكتبة الاميرية العامة), among others. The library holds a collection of books, manuscripts, magazines, newspapers, and a few artefacts. There are approximately 7,525 manuscripts and 7,000 rare books. The main library holds around 41 Waqf libraries; the official registered number is 34 libraries, but the library plans to update this number soon. See Appendix (M) for the names of the 34 registered Waqf libraries.

The *Al Masjed Al Nabawi* mosque Waqf library (مكتبة المسجد النبوي الشريف) is the mosque Waqf library of the Holy Mosque of Medina (see Appendix (I) for photographs of the library). The formal name of this library is the Al Masjed Al Nabwi Library (Library of the Holy Mosque of Medina). The library holds some contents dating from before a fire that occurred in 1481. It is located on the northwest side of the Holy Mosque of Medina and accessed through door No. 10.

The library's collection contains more than 173,000 books in more than 21 languages and 3,551 manuscripts. The collection is diverse, covering more than 71 disciplines, including religion, medicine, and history. Usually, Waqf libraries use different rooms or sections to separately house different Waqf collections and associate each one with the name of the original owner/donor of the collection. However, due to limited space, this library integrates its collections and instead keeps a list of the names of owners/donors. Anyone can visit this library, and it is open twenty-four hours a day. Anyone can access their collection on-site.

Though it was known that each mosque library hosts several different Waqf libraries, the researcher was not able to acquire a specific number, or the names of those individual Waqf libraries. This information was not available at the time of the interview.

Private/family Waqf libraries

Private and family Waqf libraries can be difficult to identify and locate within Mecca and Medina. Often, these types of libraries reside within the private residence. Gaining access to a home is not as easy as entering a publicly known and open Waqf library. Although two private and family Waqf libraries were examined during the course of this study, there are undoubtedly more extant private libraries within the two holy cities. That said, the two family Waqf libraries visited are two of the most important family Waqf libraries in this region. Both

are located in Medina and are marked on the map presented in Figure 1, which shows the original location of all the Waqf libraries visited in Medina. The two family libraries visited were *Al Busati* Waqf Library (مكتبة البساطي الوقفية) and *Muzhar Al-Farouqi* Waqf Library (مكتبة مظهر الفاروقي الوقفية). Both of these Waqf libraries mainly aim to serve the family members of the donor, and therefore, they are not obligated to reveal their existence to the public; in general, this fact makes family/private Waqf libraries difficult to find. However, these two Waqf libraries do honour the main laws of Waqf. As a result, the owners cannot sell the library or give it away, and they must refer to the court regarding any disputes or problems or threats that may arise regarding the continuous existence of the library.

Al Busati Waqf library (مكتبة البساطي الوقفية) is a private/family Waqf library (see Appendix [K)] for photographs of the library). The formal name of the library is the Library of Ahmed Omar Busati, named for the interviewee's grandfather, who is the person who first registered the library as a Waqf. The library was formally registered as a Waqf library in 1874 AD. However, the collection dates from 1543 AD, when the ancestors of the Al Busati family started collecting books and manuscripts. The collection passed to family members, generation after generation, until Mr Ahmed Busati decided to register the library as a Waqf for the benefit of his family and to ensure that it would be kept intact for as long as possible.

The library was initially located next to the Holy Mosque of Medina. It moved around for different reasons (such as the expansion of the holy mosque) over the years until being established at the interviewee's home; the interviewee (Mr Omar Busati) is thus currently responsible for its care. The family is planning to move the library once more, albeit this time to a permanent and larger location, where they plan to provide reading halls with computers for patrons. However, because this is a family Waqf library, it aims to serve the Busati family first and others second, subject to the family's availability. For now, the library is not open to the public, however, they cooperate with some universities and higher education students by providing them with access to their collection by appointment. Mr Busati sends a copy of the library catalogue to these institutions upon request. If other parties want to access their collection, they can contact Mr Busati, who assesses their requests individually to see if he can provide them with what they want. The library contains manuscripts, books, and a few artefacts; it contains in the region of 2,716 manuscripts and 1,000 books, and the collection includes many different disciplines.

Muzhar Al -Farouqi Waqf Library (مكتبة مظهر الفاروقي) is also a family/private Waqf library (see Appendix [L] for photographs of the library). The official name of the library is the Waqf Library of Shaikh Mohammed Muzhar Al Farouqi, named after the founder. The library was founded in 1874 and was originally located near the eastern minaret of the Holy Mosque of Medina. When first established, the library was part of a large Waqf establishment that held the library, a school, and places for scholars to study. Since then, the Waqf library has been moved to different locations under the supervision of the Al Farouqi family. Currently, and as a temporary measure, the library is located in one of the family's proprieties in Medina. However, there are plans to move it back to a location near the Holy Mosque of Medina; this location, being larger than the library's current housing, will allow room for reading halls with computers for visitors and in-house access to their catalogue that allows users to request access to some of their digitised collection.

The library was registered as a Waqf to serve the Al Farouqi family first and scholars and students second. Since then, different generations of the Al Farouqi family have taken care of the library, and currently, the interviewee's brother, Mr Hassan Al Farouqi, takes care of the library with essential guidance and instructions from his father. Accordingly, he has catalogued their entire collection of manuscripts, and a printed copy is available in both Arabic and French. Moreover, a digital catalogue is in the process of being created.

The library holds approximately 1,000 manuscripts. The oldest manuscript they hold, produced in 790 AD, is *The History of Al Medina Al Munawara* by Ibn Shiba (تاريخ المدينة المنورة لابن شبة). The library holds over 2,000 books and manuscripts, including a manuscript of the Holy Quran, dated 1828, that was written by the library's founder.

As noted earlier, private/family Waqf libraries represent themselves as a single Waqf library, unlike the previously discussed public and mosque Waqf libraries, which tend to host several originally distinct Waqf libraries within their premises. However, private/family Waqf libraries, just like any other Waqf library, can accept book and manuscript donations that are integrated into their Waqf collection.

Academic Waqf libraries

As explained earlier, the academic Waqf library is not a type of Waqf library mentioned in previous Waqf studies. However, during the field visit to Mecca and Medina, some of the librarians working in the visited Waqf libraries reported that academic libraries in Mecca and Medina may hold different collections of Waqf libraries. Thanks to this information, the researcher was able to locate and visit two different university academic libraries that each hold their own collection of various Waqf libraries within their premises.

An academic Waqf library is a Waqf library that resides within an academic library/institution and aims to serve the university society whether in general or for specific colleges. The two libraries are the Academic Library of *Umm Al Qura* University in Mecca (مكتبة جامعة ام القرى) and the Academic Library of the Islamic University in Medina (مكتبة الجامعة الاسلامية).

The Academic Library of Umm Al Qura University in Mecca is also called King Abdullah Library (see Appendix [E] for photographs). Even though this is mainly an academic library, there are separate sections within the library called Private Libraries, which are separated from the non-Waqf collection. These sections hold only the collections of Waqf libraries that different donors have gifted to the library as a Waqf.

In a wing of the institution, each collection is separate from the others and shows the name of the donor of the Waqf collection. Generally, access to this section of Waqf libraries is restricted. Permission must be acquired to access the collection, and it is for on-site reading purposes only. Such permission tends to be given flexibly, granted to anyone who is interested in the collection. The Waqf library collections contain only books. Presently, the institution has 18 Waqf libraries in this separate section (see Appendix [M] for the names of those libraries). The Waqf collection is already catalogued and can be searched via the main library system and the library's website. Once a book is selected, if it is in the Waqf collection, a note will appear to indicate that the book is in a restricted access section, and permission must be acquired to access the book.

The Academic Library of the Islamic University in Medina (مكتبة الجامعة الاسلامية) holds two main Waqf libraries, each of which is kept in a separate dedicated room, and several smaller Waqf collections of books. The first floor of the library has separate rooms that hold the

different Waqf libraries apart from the rest of their main academic, non-Waqf collection. (See Appendix [F] for photographs of the library.)

The first Waqf library is the Waqf library of Al-Shaikh Mohammed Alalbani (الشيخ محمد الألباني). He was a well-known Islamic scholar who also taught for several years at this university. After retirement, he moved to Jordan, where he passed away in 1998. He stated in his will that that he wanted his library to be donated as a Waqf library to the Islamic University in Medina. Therefore, with the help of the Saudi embassy in Jordan, his library was moved from Jordan to its new location in Medina. His library contains many books and manuscripts, but the exact number is not known yet; the process of cataloguing is ongoing, so the collection is not available for general public access yet. After cataloguing is completed, it will be connected with the main library's overall system as well as with the Arabic Union Catalogue online.[12] The Alalbani Waqf library currently has a student who is working on taking photographs of any materials that contain the handwriting of the donor of the library.

The Academic Library of the Islamic University in Medina is considering digitising the contents of its Waqf libraries in the future, once funding is available. However, if the Waqf collection is digitised, they may still allow only on-site access even for the digitised material, subject to Waqf conditions (according to the interviewee, Mr Attallah).

The second main Waqf library within the Academic Library of the Islamic University in Medina is the Waqf library of Al-Shaikh Obaid Madani (الشيخ عبيد مدني) a well-known scholar of the history of Medina. After he passed away, his family wanted to donate his library as a Waqf library to the university. The library was donated as a Waqf just six months prior to the researcher's visit. The library holds around 450 manuscripts and rare books. As with the other Waqf library, work is still in progress in terms of cataloguing the collection. Access is also restricted until the cataloguing work has been completed.

The third room on the first floor of the Academic Library of the Islamic University in Medina holds different, smaller Waqf collections. Each collection is kept on a separate shelf labelled with the name of each Waqf collection donor. Neither the number nor the names of the items

---

[12] https://www.aruc.org/en/home

in this Waqf collection were available. The university has not yet begun the process of cataloguing or digitising the collection in this room, which holds books only.

The Academic Library of the Islamic University plans to keep the Waqf libraries that they hold available to read on-site only; because this library is Waqf, unlike with their academic non-Waqf collection, the university does not have the authority to grant unrestricted access.

In terms of digitising the Waqf collection in the future, the library will give priority to digitising their academic collection first, as they are mainly an academic library and aim to serve the university community. However, if extra funds are available to digitise the Waqf collection, it will be considered.

Table 7 provides a summary of the contents and extent of the collections of the eight visited Waqf libraries.

Table 7

The Content of the Collections of the Eight Visited Waqf Libraries.

Library	Contents
King Abdul-Aziz Complex for Waqf Libraries	Manuscripts (14,000), rare books (25,000), and artefacts (unknown number)
Al Masjed Al Nabawi Waqf Library	Manuscripts (3,551), books (more than 175,000), and audio recordings
Academic Library of the Islamic University	Manuscripts, books, and newspapers (unknown number)
Al Busati Waqf Library	Manuscripts (2,716), books (1,000), and artefacts (unknown number)
Muzhar Al-Farouqi Waqf Library	Manuscripts (1,000) and books (2,000)
Makkah Al Mukaramah Waqf Library	Manuscripts (1,520) and books (35,000)
Al Haram Al Makkey Al Shareef Waqf Library	Manuscripts (7,525), rare books (7,000), and unknown number of artefacts
Academic Library of Umm Al-Qura University	Books only (unknown number)

Waqf libraries have a variety of content including manuscripts, rare books, and artefacts. However, Waqf libraries are especially unique in how they are created and developed. Some Waqf libraries, originally owned by an individual, were registered as a Waqf library after being largely assembled. That was the case with the private/family Waqf libraries. The same was also true for some of the original individual Waqf libraries that now reside within a bigger public Waqf library. Other Waqf libraries have emerged with donations to other institutions, whether those institutions were Waqf institutions or not. For example, donating a collection of books as a Waqf to the library of the Holy Mosque of Medina, which is a Waqf library by default, transforms those books into a Waqf library. Donating a personal library or a collection of books as a Waqf to non-Waqf institutions, as in the case of the Waqf collections that reside within the academic libraries, which are not Waqf institutions, also results in new types of Waqf libraries.

When these non-Waqf institutions accept donations as a Waqf, they are obligated to honour the laws of Waqf and any other conditions associated with the Waqf donation, as in the case of the two academic libraries in Mecca and Medina, respectively. In each institution, these donated Waqf collections were kept separate from the rest of the normal collection. The obligations of Waqf are important to understand and realise, because any non-Waqf institution that accepts a Waqf donation must be prepared to manage the Waqf collection in line with the laws of Waqf. If the institution cannot do so, they could decline the donation as a Waqf and ask the donor to consider donating their library or book collection as a normal non-Waqf donation.

Another important note is that even though the visited public and mosque Waqf libraries in Mecca and Medina turned out to be hosting different collections of Waqf libraries, this does not mean a public Waqf library always has to be a representation of a different collection of Waqf libraries. A public and a mosque Waqf library can be a single, self-represented Waqf library.

Digital status

After observing the current digital practices at each of these libraries, they can all be grouped into three categories.

The first category is libraries that have gone fully digital (with fully digitised collections and digital services), for example, Al Masjed Al Nabawi Waqf library (مكتبة المسجد النبوي الشيف), Medina.

The second is libraries that have gone partially digital (with a limited digitised collection and limited digital services), for example, Makkah Al Mokaramah Waqf Library (مكتبة مكة المكرمة), Mecca; AL Haram Al Makey Al Sharef Waqf Library (مكتبة الحرم المكي الشريف), Mecca; King Abul-Aziz Complex for Waqf Libraries (مجمع الملك عبدالعزيز للمكتبات الوقفية), Medina; Al Busati Waqf library (مكتبة ال البساطي), Medina; and Muzhar Al Farouqi Waqf library مكتبة مظهر (الفاروقي), Medina.

The third is libraries that have not yet developed any digital transformation of the Waqf collection and services, for example, the Umm Al Qura University Academic Library (مكتبة جامعة ام القرى), Medina and the Islamic University Academic Library (مكتبة الجامعة الاسلامية), Medina.

This variation is due to several different reasons. First, while some Waqf libraries have received sufficient funding from their management to develop their digital presence, others have not. The latter is the case with the public and mosque libraries, which are managed by different government entities. In the case of family-owned Waqf libraries, funding and time are both obstacles to commencing a full digital transformation. With academic Waqf libraries, lack of funding and the presence of other priorities are weaknesses that have resulted in no digital presence of any kind yet; namely, university funds tend to go directly to the university academic collections and services, which are prioritised over the Waqf libraries. These challenges highlight the importance of having a single body to manage and supervise Waqf libraries, specifically a body that has sufficient funds and Waqf libraries as its sole priority.

Digitising, virtual presence, and reasons for digitising

Table 8 illustrates that the majority (six out of eight) of the visited Waqf libraries in Mecca and Medina, in the same way as other types of libraries, have started to digitise their content. This move to digitisation highlights the need for research that advises on the different possible issues related to the subject, all of which are addressed in this thesis. More details and insight in the previous point will be further discussed in the discussion chapter.

Table 8

A Summary of the Current Status of the Digitisation and Virtual Presence of the Visited Waqf

Libraries.

Library	Digitising status	Virtual presence (website)
King Abdul-Aziz Complex for Waqf Libraries	100% of manuscripts	Not available
Al Masjed Al Nabawi Waqf Library	100% of the collection	Internal website only (in-house)
Academic Library of the Islamic University	0% of the Waqf collection is digitised.	Available https://library.iu.edu.sa/uhtbin/cgisirsi.exe/?ps=9AOBlTOoJc/MAIN/81810007/2/1000.
Al Busati Waqf Library	Digitisation is underway.	Not available
Muzhar Al-Farouqi Waqf Library	100% of manuscripts	Not available.
Makkah Al Mukaramah Waqf Library	100% of manuscripts	Not available
Al Haram Al Makkey Al Shareef Waqf Library	100% of manuscripts	Not available
Academic Library of Umm Al Qura University	0% of Waqf collection is digitised.	Available https://uqu.edu.sa/en/lib.

The public Waqf libraries, namely Makkah Al Mukaramah Waqf library (*Almawalaed*) and King Abul-Aziz Complex for Waqf Libraries have produced high-quality digital images of their manuscript collections but have yet to complete similar work on their printed collections. Both libraries have digitised their manuscript collection with the help of King Fahad National Library.[13] As the national library of Saudi Arabia, King Fahad National Library aims to preserve the heritage of the country and has digitised important manuscript collections.

The two mosque libraries, namely the Al Haram Al Makkey Al Shareef Waqf library in Mecca and the Al Masjed Al Nabawi Waqf Library in Medina, which are both managed by the General Presidency for the Affairs of the Grand Mosque and the Prophet's Mosque, are working towards digitising the collection of their two mosque Waqf libraries. The Al Masjed Al Nabawi Waqf Library in Medina Waqf collection is fully digitised and has a policy to initially digitise any item received, including manuscripts and books. The staff at this library do the process of digitising in-house and possess the necessary equipment and personnel to complete this task (R. Alrefaie, personal communication, 14 April 2019).

Al Haram Al Makkey Al Shareef Waqf library in Mecca is following in the same footsteps; their entire manuscript collection is fully digitised and there are printed and electronic copies of the catalogue. The library's collection of printed books is not yet fully digitised, but it is a work in progress. For now, the staff digitised 800 books from the rare collection and continue working (O. Alhazme, personal communication, 26 March 2019).

Regarding family Waqf libraries, Muzhar Al-Farouqi Waqf library, with personal efforts from family members, has digitised 100% of its manuscript collection, which is kept on a database and CDs in their home; currently, access to this collection is restricted to family members. The family started digitising the manuscripts based on their value and importance, which was also a way to keep a safe version of the manuscripts and facilitate access to the collection. For the next phase, the family planned to catalogue and digitise the book collection (O. Al-Farouqi, personal communication, 22 April 2019). The library is about to undertake joint work with the King Abdul-Aziz Foundation for Research and Archives to apply a treatment process to old manuscripts.

---

[13] https://kfnl.gov.sa/en/Pages/default.aspx

On the other hand, Al Busati Waqf Library's entire manuscript collection has been catalogued and is available in both print and electronic versions. However, the books are still in the process of being catalogued (B. Busati, personal communication, 22 April 2019). One week before the interview, the family had started the process of jointly digitising the manuscript collection with the King Abdul-Aziz Foundation for Research and Archives. This digitisation process is being performed inside Busati's house; he has dedicated a room with a scanner where one person who is hired by the family scans the manuscripts and reviews the scans to ensure that everything is performed correctly. After digitising all the manuscripts, the family aims to start digitising the book collection for safety reasons and to facilitate access.

Here, in contrast with the public Waqf libraries, which are assisted by King Fahad National library, for family Waqf libraries, help is offered by King Abdul-Aziz Foundation for Research and Archives.[14] Both, King Fahad National library and King Abdul-Aziz Foundation for Research and Archives are government bodies that aim to preserve the heritage of Saudi Arabia. Therefore, it is apparent that the Government is aware of the importance of offering help in digitising and preserving that content of Waqf libraries in Saudi Arabia. Cooperation from the Waqf libraries with both King Fahad National and King Abdul-Aziz Foundation for Research and Archives was voluntary due the unique characteristics of Waqf libraries, which do not want to breach any of the laws of Waqf. However, Before fully acquiesces to best practices of digitisation, it is important to consider the religious implications of the digitisation of Waqf collections.

In terms of the visited academic libraries, which hold different numbers of Waqf collections, the academic library of Umm Al Qura in Mecca has not started the process of digitising the Waqf collection as its priority is serving the academic library. However, when the library has enough funding in the future, it intends to digitise and improve digital services for the Waqf section. For now, the digital service associated with Waqf libraries in this academic library is merely a digital catalogue. The library's original academic collection of manuscripts and theses is digitised (M. Alrabge, personal communication, 17 April 2019). Since the main purpose and goal of this library is as an academic library to serve its university community, digitising the Waqf collection is not a priority at present.

---

[14] https://www.darah.org.sa/

The Academic Library of the Islamic University in Medina is considering digitising the contents of the Waqf libraries that they hold sometime in the future once funding is available from the university. However, if the Waqf collection is digitised, the library might allow only on-site access to the digitised material subject to Waqf conditions (A. Attallah, personal communication, 21 March 2019). If digitising the Waqf collection in the future, the library will give priority to digitising their academic collection first as it is mainly an academic library that aims to serve the university community. If extra funds are available to digitise the Waqf collection, digitisation of the Waqf collection will be considered. (A. Attallah, personal communication, 21 March 2019)

Existing academic libraries are a new, emerging type of Waqf library, and the difference between these academic libraries and the public, mosque, and family Waqf libraries, is that the academic libraries of Umm Al Qura University in Mecca and the Academic Library of the Islamic University in Medina are not original Waqf bodies, rather serving as academic non-Waqf libraries that follow their own universities' policies, which means that they are only obligated to respect and apply Waqf laws when it comes to their Waqf collections. As these libraries hold several Waqf libraries and collections, which are kept separately from their main collection.

Table 8 shows that not all Waqf libraries have a dedicated website that can be accessed remotely, other than the Al Masjed Al Nabawi Mosque library, where they have a website that is accessible in-house and cannot be accessed remotely. Most of the visited libraries did have the intention to create a website in the future. However, due to the absence of a framework and model that regulate the existence of a Waqf digital library, it is still not known how and what kind of access that may be provided through websites.

The main two reasons that motivated Waqf libraries in Mecca and Medina to digitise, are: to facilitate access, and to have backup electronic version of the original Waqf collection in case something happened to the original collection. Similarly, Nnenna and Ume (2015) argue that there are three main reasons for libraries to digitise, namely the need to preserve the most valuable materials, the development of the information search process, and the ability to provide enhanced access to library materials. The question that should be asked in granting access to a digitised collection is for who it will be made. Preserving and facilitating access for

who? Is it only for the targeted people in align with each library's Waqf conditions and laws, or for everyone, even if they are not within the targeted beneficiaries of the Waqf libraries? This important question cannot be answered unless there is a framework and a model that regulate the existence of digital libraries versus the laws of Waqf, which are provided in the following sections. Answering this question will give closure and advice to Waqf libraries on how to treat the digital surrogates of their Waqf collection and whether Waqf laws should, by default, apply to them or not.

Access

Table 9 is a summary of the current status of access and type of services provided within the visited Waqf libraries in Mecca and Medina. The table shows that all the visited Waqf libraries do not provide remote access to their Waqf collection, particularly those with a digitised collection that can be made available online and accessible remotely. Moreover, the visited Waqf libraries provide either digital and traditional services or only traditional services on-site.

Table 9

Summary of the Current Status of Access and Type of Services Provided Within the Visited

Waqf Libraries in Mecca and Medina.

Name of the Waqf library	Remote access to the collection	Physical Access (on-site)	Services
King Abdul-Aziz Complex for Waqf Libraries	Not available	By appointment only	Digital and traditional services (in site)
Al Masjed Al Nabawi Waqf Library	Not available	Available (Subject to working hours)	Digital and traditional services (in site)
The Academic Library of the Islamic University	Not available (The Waqf collection)	Available with a permission (Subject to working hours)	Traditional services
Al Busati Waqf Library	Not available	By appointment only	Traditional services (in site)
Muzhar Al-Farouqi Waqf Library	Not available	By appointment only	Traditional services (in site)
Makkah Al Mukaramah Waqf Library	Not available	Available (Subject to working hours)	Digital and traditional services (in site)
Al Haram Al Makkey Al Shareef Waqf Library	Not available	Available (Subject to working hours)	Digital and traditional services (in site)
The Academic Library of Umm Al Qura University	Not available (The Waqf collection)	Available with a permission (Subject to working hours)	Traditional services

The two academic libraries of the Islamic University in Medina and the Umm Al Qura University in Mecca are yet to provide digital services to the Waqf collection because they are yet to digitise their Waqf collection. However, these libraries do provide limited services within their premises, and the academic library of the Islamic University may grant access to some of the Waqf collection after acquiring the necessary permissions. After digitising their Waqf collection in the future, they aim to make them available to read on-site only. Because these libraries are Waqf collections, they do not have the full authority or rights over the collection to grant unrestricted access, unlike the academic non-Waqf collection (A. Attallah, personal communication, 21 March 2019). However, this decision should be debatable based on the final suggested framework is provided in this thesis, which aims to regulate the existence of a digital Waqf library.

Access to the Waqf collection in the academic library of Umm Al Qura is generally restricted. Permission must be acquired to access the collection for on-site reading purposes only. This permission can be flexible and granted to anyone who is interested in the collection. However, borrowing books from the Waqf collection is not permitted. The Waqf collection is already catalogued and can be searched via the main library system and the library's website. Once a book is selected and is in the Waqf collection, a note will appear to indicate that the book is in a restricted access section and that permission must be acquired to access the book. For now, the library is working on a digital catalogue of the Waqf collection, but people can request permission to physically access the printed Waqf collection (M. Alrabge, personal communication, 17 April 2019).

In terms of the digital services within the family Waqf libraries, Al Busati Waqf library is still in the process of digitising its collection, currently only providing limited physical services for visiting their printed Waqf collection. However, by appointment, the library sometimes cooperates with universities and higher education students who hope to access some of the collection by appointment (B. Busati, personal communication, 22 April 2019). According to Mr Al Busati, when the collection is completely digitised, access to the digitised manuscripts will be limited. Any requests for access will need to be assessed before being permitted. The library is planning to provide in-house access (not remote) to the digitised collection once the library moves to a new location and providing computers for visitors. There are currently no plans to create a website, but should they decide to create one in the future, it would be to

provide information about the library and access to the catalogue; the owners are not planning to provide open, unrestricted access to the digitised collection. However, the library has considered providing an option whereby a copy of a manuscript can be requested through the planned website (B. Busati, personal communication, 22 April 2019)

Conversely, at the Al-Farouqi Waqf library, the family cooperates with known scholars and students whenever they can by providing them with access on-site to information and materials that they are searching for in the family's unique collection. However, any resources must be accessed from the physical library location after making an appointment with the family (O. Al-farouqi, personal communication, 22 April 2019). The family is working to create a website to provide information on the library and access to the manuscript catalogue. Remote access will be restricted, though they might consider making exceptions for known scholars. Other researchers will need to request access to the digital collection. Furthermore, there are plans to move the library back to a location near the Holy Mosque of Medina, which, as a larger location, will allow room for reading halls with computers for visitors that provide in-house access to their catalogue and the ability to request access to some of the digitised collection (O. Al-Farouqi, personal communication, 22 April 2019).

Currently, users can visit the Al Haram Al Makkey Al Shareef Mosque library in Mecca, go through the printed catalogue, and ask for a copy of one of the digitised manuscripts, which they are then provided with on a CD or USB. The desired copies can also be emailed to users. User requests must first be approved by management, being aware of copyright and Waqf laws and their own policies (O. Alhazme, personal communication, 26 March 2019). Users can only access the library's collections and services in person; remote access is not yet available. On-site access is open to anyone of any nationality. Furthermore, the library has just created a new department called the Digital Library Department, which is currently working on creating a library website and developing everything around the future digital services that they aim to provide. This department is also working on a plan to provide computers for users. In the future, the owners aim to be able to provide essential services, such as uploading the catalogues of their collection, through the newly developed website (O. Alhazme, personal communication, 26 March 2019). They also plan to provide a service where users can request copies from items in the collection online. However, all online requests in the future are

subject to review and approval from the management based on copyright and Waqf laws and restrictions, if any (O. Alhazme, personal communication, 26 March 2019).

On the other hand, anyone can visit the Masjed Al Nabawi Mosque Waqf library in Medina as it is open twenty-four hours a day; anyone can access the collection on-site. On-site, the library has 55 computers available for use by visitors. Visitors can use the on-site computers to access the digital versions of the books and manuscripts through an internal website that provides many other services, including access to information about the library, as well as a catalogue and staff contacts for any inquiries. The library has an electronic catalogue of the whole collection available on the visitors' computers. The library is currently working on providing Optical Character Recognition (OCR) transcriptions for their collection. However, these services are only provided on-site, not remotely. If a visitor would like a digital copy of one of their books or manuscripts, they must make a request with the library. Management reviews these requests in light of Waqf and copyright policies to determine whether they can approve the request. If approved, the library provides the visitor with a copy on a CD or USB. There are plans to build an online website for the library, though this website will only provide access to information about the library and its catalogue. For now, the library has a fully functional, local on-site website.

Regarding the visited public Waqf libraries, Makkah Al Mukaramah Waqf Library (Also known as *Al Mawled library*), in terms of its digital services, serves everyone, though there are no computers for visitors and no remote access. Employees provide digital copies on CDs of any of their digitised manuscripts to anybody who asks for free. However, visitors need to fill out a request form to obtain a digital copy of the manuscript. At the moment, requests must be made in person at the library, and the library also provides access to a printed catalogue of the digitised manuscripts for users to search. The library digitised the manuscript collection to facilitate user access to information and maintain a digital backup of the collection in case something was to happen to the original collection. The library has plans to continue digitising the rest of the collection, starting with rare books as a priority. The library also plans to create a website for the library as soon as possible (Y. Alsubhey, personal communication, 20 March 2019).

The King Abdul-Aziz Complex for Waqf Libraries provides walk-in services for people who want digital copies of the manuscripts in the collection. Although there is currently no electronic catalogue available to visitors, they can search a printed catalogue of the manuscript collection, and digital copies of manuscripts can be provided on CDs (M. Al Ofei, personal communication, 25 April 2019). For now, there are no areas dedicated to reading halls, and visitors must consult with library employees, access to the physical collection is not permitted, and the only way to contact the complex or acquire digital copies is by visiting in person. After moving to a permanent location and receiving funding from the Government, the library aims to continue digitising its collection, create a website, and improve its digital services (M. Al Ofei, personal communication, 25 April 2019).

There are variations in Waqf libraries in Mecca and Medina in terms of how to provide access, particularly to the digitised versions of their content. Moreover, the researcher found that there was confusion among some of the interviewees in terms of access to the digitised version as they were not sure whether to treat their digitised version of their original Waqf library's collection as a Waqf and apply all of the laws and conditions of their traditional Waqf library to the digital version. This confusion affects how access to the digital version of Waqf libraries should be regulated, which is due to the absence of a framework that regulates the concept of a digital Waqf library. Such regulation to exist officially will need a collaboration between the main bodies that are involved with Waqf libraries such as the General Author for Awqāf, The Saudi Libraries Commission, and the Saudi Authority for intellectual property. This thesis is taking the initial steps and provides important information in terms of trying to identify the issued and conflicts when it comes to the digitisation of Waqf libraries and suggest different ways to address those issue.

Waqf vs Copyright

Based on the previous investigation of the current digital practices and services in Waqf libraries in Mecca and Medina, it was noticed that some libraries did respect Saudi Arabian copyright laws when accepting any donation to Waqf collection. However, there was still ambiguity in whether these Waqf libraries should prioritise the laws of Waqf and the Waqf conditions over copyright laws; there was no clear advice on how to handle this issue. And it is clear that these two laws will come into a conflict in a number of ways. If public Waqf

libraries and mosque Waqf libraries accept a copyrighted book from a donor to be added to their Waqf collection, the issue would be that restricting access and preventing making printed or digital copies of this book due to the copyright laws would be against the main purpose of a public or a mosque Waqf library, which is to provide access to knowledge to all to gain rewards and forgiveness from Allah (God). Therefore, with the absence of a proper official government regulations, fatwa, and Islamic opinion on how Waqf libraries should deal with copyrighted materials, this ambiguity makes Waqf libraries take different approaches based on their judgement.

The reason why this issue is different, is that, as explained in the Literature review in the Waqf chapter, anything donated to an already established Waqf property will become Waqf itself, then anything that became a Waqf, means that it belongs to God and the original donor has no ownership of it anymore. Therefore, asking Waqf libraries to adhere to copyright laws when accepting new donation needs to be regulated based on Islamic fatwas. This issue is important as many of the visited Waqf libraries are already digitising their collections., Therefore, the question is whether they should digitise and give access to copyrighted books and manuscripts within a Waqf. And can the donor in the first place ask a Waqf library to adhere to the donated materials' copyrights knowing that they are donating it as a Waqf? It is important to give advice on this issue and give closure to both librarians who work at Waqf libraries and donors who want to donate copyrighted materials to a Waqf library of any type. To put this into greater perspective, the Saudi Copyright Law (2003) identifies the problems that might occur when we try to enforce copyright laws on Waqf-protected materials. For example, Article 8 of Chapter Four of the Saudi Copyright Law (2003) states that some of the author (owner) rights are:

> (c) Making any amendment to or deletion from his work, at his discretion.
> (d) Withdrawing his work from circulation. (p. 6).

When it comes to a book/e-book that is intended to be a Waqf, these two sections could be problematic. After donating a book as a Waqf, the donor loses ownership of it and has no right to ask for deletions or alterations in the content of the donated work. Moreover, the author (donor) has no right to withdraw his work after it has been accepted as a Waqf. However, under Saudi Arabian copyright laws, this is allowed. Therefore, if a collection happens to be

protected under both copyright and Waqf laws, how should librarians deal with it? Do they prioritise copyright laws and compromise Waqf protection laws? Or vice versa?

Moreover, under Saudi Arabian Copyright Law (2003), there are certain exceptions that allow people to use and copy copyrighted content without seeking any permission. Some of them are mentioned under Article 15, such as:

> Copying the work for personal use, excluding computer software, audio and audiovisual works.

> Using the work by way of clarification for educational purposes, within the limits justified by the intended objective, or making a copy or two for public libraries or non-commercial documentation centres. (pp. 7–8).

The issue here is that it is not clear whether those exceptions also apply to Waqf-protected content or if Waqf-protected content should be exempt from them. As was explained in the literature review, every Waqf has its own conditions that have to be respected. Therefore, would applying those copyright exceptions to Waqf-protected content mean that the Waqf conditions are breached? The answer to this is still unclear, as Saudi Arabian Copyright Law (2003) does not have a section or a statement that explains how to deal with Waqf-protected intellectual property, especially those that could simultaneously fall under both Waqf and copyright laws. Such confusion results in Waqf libraries dealing differently with these issues, as was mentioned earlier. This issue could be solved by adding a section within the Saudi Copyright Law (2003) that explains how to deal with content and intellectual property that is registered as a Waqf. The focus of this should be on libraries' intellectual property, such as books and manuscripts. This indicates that there is ultimately a need to produce dedicated recognition and regulation for Waqf-protected intellectual property.

Discussing Waqf laws and copyright laws in Saudi Arabia is similar to a case that has happened in the Western world, in which different studies have investigated the infringement of copyright laws in the process of digitising, as in the case of Google Books (Nagaraj, 2018; Shukla, 2018). One of the biggest digitisation projects is the Google Books digitising project, which aimed to digitise every published book that exists and a catalogue that contains more

than 30 million works (Nagaraj, 2018). The Google Books project has faced several lawsuits accusing them of copyright infringement. Shukla (2018) explains this issue as follows:

> Such copying of texts without seeking the permission of authors infuriated them as well as the publishers. The Authors Guild, pointing out the "massive copyright infringement" by Google in scanning books under copyrights, without authors' permissions, filed a first suit. Subsequently, there was a second suit filed by the publishers. There were two attempts to settle the cases that were dismissed by the judges twice in 2008 and 2009 (p.2).

Using the case of Google Books to discuss Waqf digitisation may cause another dilemma. This dilemma is specifically digitising books without the permission of the authors, which may be different for Waqf libraries. It is more difficult to consider this subject in this context because the donor of a Waqf book loses the right to the publication(s), ownership, and so on. Waqf assets belong to God and people are allowed to only take advantage of its benefits based on the conditions of each Waqf. Therefore, it is important to distinguish Waqf libraries from normal libraries, particularly when aiming to provide a new concept of a digital Waqf library.

In the Western world, there have been issues of dealing with copyright laws when digitising copyrighted materials. In Waqf libraries, on top of the already existing copyright laws in Saudi Arabia, it is necessary to investigate and understand how Waqf laws would also play a role in shaping the policy of digitising Waqf collections. Therefore, in a non-Waqf library, even in Saudi Arabia, the copyright laws must be observed when digitising collections. However, in Waqf libraries, it is important to understand whether Waqf laws would affect in any way the digitisation of a Waqf collection in terms of whether it is allowed and what kind of restrictions should be imposed based on the Waqf laws aside from the copyright as Nagaraj (2018) explains:

> The digitization process is subject to constraint, however; notably, it is governed by intellectual property (IP) and copyright laws that were originally conceptualized for more traditional forms of content. Therefore, the question of whether and how

copyright should be modified for the digital age has become a prominent topic of discussion in policy and legal circles (p. 3091).

Scholars have debated whether copyright laws should be applied differently to a digitised version of a publication. Therefore, in considering the digitised version of a Waqf library from a religious point of view, it is important to consider how the laws and conditions of the Waqf library must be transferred by default to the digital version. Addressing this question would determine if and how Waqf libraries could provide access to their digital versions of their Waqf libraries. Nagaraj (2018) argues that "copyright might affect the benefits of digitization: by prohibiting the reuse of digitized material, particularly within open, community-based innovation projects" (p. 3104).

It must be considered how Waqf libraries should deal with the issue of copyright laws and how donors should be advised regarding their ownership rights if they decide to donate one of their own books (either the donor owns the rights of the donated book or just owns that one copy of a book) to a Waqf library as this donation will become Waqf by default. It is important to note that other non-Waqf libraries in Saudi Arabia such as public, academic, and school libraries do honour and respect Saudi copyright laws discussed in the literature review. Based on what has been witnessed in Waqf libraries in Mecca and Medina, and the mentioned worldwide problematic cases of copyright infringements when digitising non-Waqf libraries, it is important to provide a model and framework that regulate the concept of digital Waqf libraries, one that addresses such issues and possible conflicts.

The outcomes of the interviews with the Islamic scholars

After reviewing the information on the concept of Waqf and Waqf libraries and that of digital libraries in the literature review, as well as after investigating the current traditional and digital practices taking place today in Waqf libraries in Mecca and Medina, a set of topics, issues, and inquires (some of which were discussed in the previous section), were identified that need to be addressed by acquiring fatwas and opinions from Islamic scholars, which will ultimately aid in allowing answers to the main research question. Those inquires, which were addressed as a semi-structured interviews to Islamic scholars, can be seen in detail in Appendix (B).

Two recognised Islamic scholars were interviewed. The first interviewee was Shaikh Dr Amir Feda Bahjat. He is currently an assistant professor at Taibah University in the holy city of Medina. He has earned a master's degree in Comparative Islamic Jurisprudence (*Fiqh*) from the Higher Judicial Institute in Saudi Arabia and a PhD in the Islamic *Fiqh* from the Islamic University in the holy city of Medina. He is interested in the Islamic *Fiqh*, in particular the *Fiqh* of Waqf; he wrote and created an expanded training course in the *Fiqh* of Waqf and has led many training courses on this subject. He is also very knowledgeable on the different opinions among the four main Islamic schools when it comes to the concept of Waqf.

The second Interviewee was Dr Hamed Merah, who is currently a CEO at the Saudi Centre for Commercial Arbitration and a former assistant professor at the Higher Judicial Institute in Saudi Arabia in the Department of Comparative Islamic Jurisprudence (*Fiqh*). He holds a master's degree and PhD from the Higher Judicial Institute in Saudi Arabi in Comparative Islamic Jurisprudence (*Fiqh*). During his work at the Higher Judicial Institute, he taught postgraduate students while supervising and examining theses in the field of Comparative Islamic Jurisprudence (*Fiqh*).

The collective expertise of these two scholars represents a substantial portion of the spectrum of thought surrounding Waqf law. Shaikh Dr Amir Bahjat is very knowledgeable on the original and traditional laws and definitions of Waqf; he can therefore represent the original traditional Islamic view on how to deal with Waqf based on Waqf knowledge within the four main Islamic schools. Dr Merah is more engaged with different Islamic non-profit organisations that are aiming to find solutions to emerging trends that may conflict with

religious regulations. For example, he assisted the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) as they investigated the registering of copyright as a Waqf and the controversial case of registering cash money as a Waqf. Ultimately, in such cases, disagreement among Islamic scholars regarding new developments is not rare; the previous section has already discussed the common and continuous disagreement among Islamic scholars and how the general public may act in such instances.

The Seeking Fatwas section explained that the Islamic opinion and fatwa from the interviewees may differ in some respects, and that this disagreement is normal among Islamic scholars. Indeed, throughout this thesis, several examples have been given of different fatwas emerging on the same subject, such as in the case of whether cash money can be Waqf or not. In this section, the opinions of the interviewees are presented and the points on which the interviewees disagreed are highlighted.

In this section, and the next, the following Final themes (Table 10) are of importance (See Appendix [O] for initial and final themes). As explained in the Methodology chapter, themes were generated initially during the writing of the literature review section about Waqf and digital libraries. These themes were then confirmed after conducting the interviews with the librarians of the visited Waqf libraries. Finally, the themes were refined again after conducting the interviews with the Islamic scholars. The following themes are the final themes and deemed the most important by the researcher to explore the concept of a digital Waqf library.

Table 10

Final Themes.

Theme	Explanation
Digital Waqf.	Can digital content /data alone be registered as a Waqf?
The creation/establishment of a digital Waqf library.	How and when can a digital library (i.e. a hybrid digital library and online digital library, as defined in the literature review) be recognised as a digital Waqf library? Consider the following scenarios: The case of a physical Waqf library that has created an extended digital library. The case of a non-Waqf physical library that would like to register only their digital version of their library as a Waqf. The case of an online digital library that would like to be registered as a Waqf.
Access and copyright within a digital Waqf library.	How should access be provided to digital Waqf content? Would the conditions of the Waqf that apply to the physical Waqf library be applied by default to the digital version of the library? Could providing remote access to a digital version of a physical Waqf library breach Waqf conditions? How should a digital Waqf library deal with copyright law? What is advisable if copyright law conflicts with the Waqf conditions of the library?

The following are the outcomes of the interviews with the Islamic scholars. Shaikh Dr Amir Bahjat will be referred to as Interviewee 1, and Dr Hamed Merah will be referred to as Interviewee 2.

Digital Waqf

One key issue in defining Waqf centres on the assertion that a Waqf must be an *Asl*, or an original known tangible asset. The concept of Waqf is thus always related to the term 'property', such that Waqf is a known tangible property/asset with a known location and value, much like land or a farm. The Digital Libraries section of the literature review mentioned that a main component of a digital library is digital content. It is thus essential to understand whether, and if so how, digital content could be considered Waqf. Clarification on this point is key to building a theoretical framework for a digital Waqf library.

Digital content is merely ones and zeros, just data stored and processed via computers (Johnson & Magusin, 2005); in other words, should digital content (data) be treated as real tangible assets? Regarding this issue, Interviewee 1 immediately questioned whether digital content could be considered as a real *Asl* (asset), or if it should be considered as a benefit/usufruct. Interviewee 1 could not see how digital content could stand alone as an *Asl* (asset), as he believes digital content is always linked to hardware, like servers or a hard disk. Therefore, he argued that digital content cannot be considered Waqf.

Interviewee 1 did believe that digital content alone can be donated as a normal endowment, just not under the laws of Waqf. Interviewee 1 also believed the only way to create digital Waqf content would be by registering the hardware that holds the digital content as a Waqf. The hardware that holds the digital content, like the servers and hard disks, are tangible *Ain* (assets) and hence can be registered as a Waqf. However, if the hardware alone is registered as a Waqf, that means only the hardware is a Waqf; the digital content within it is not. Hence, in this case, you would not have digital Waqf content. Interviewee 1 added that, in his opinion, to solve this issue, the hardware holding the digital content could be registered as a Waqf, and during the registration, the donor could add a condition that the existing digital content contained in the hardware shall not be moved, deleted, copied, and so on. In this case, the

Waqf conditions imposed by the donor would have to be honoured and applied, so the digital content would be protected under the laws of Waqf, not because the digital content itself is a Waqf, but because of the Waqf conditions imposed by the donor at the time of donating the hardware as a Waqf.

Though Interviewee 1 did not believe digital content alone to be a Waqf, he did provide a solution to anyone who would like their digital content to be protected under the laws of Waqf. Moreover, Interviewee 1 stressed that the hardware to be registered as a Waqf would have to be owned by the donor at the time of the donation, as a person cannot register a Waqf of something the person does not own.

The issue with Interviewee 1's opinion is that today we are living in a world of cloud computing. You can own digital content or even a digital library, but if it is saved to the cloud, you do not own the servers or the hardware that preserve your digital content. Therefore, based on the opinion of Interviewee 1, it may be difficult to establish digital content as a digital Waqf library. Nowadays, digital content can be hosted by many big corporations, and it is difficult for a single digital library to hold and own on-site all the hardware required to preserve that digital content; rather, digital libraries must look for the best provider able to host and preserve their digital content for a reasonable price.

In contrast, Interviewee 2 believed that digital content by itself can be a Waqf, regardless of the hardware that preserves the digital content. Interviewee 2 argued that the world is developing, and people no longer buy and own servers in order to preserve their digital content. In reality, people use cloud servers to preserve their digital content and do not think about where the physical hardware resides. Interviewee 2 believed that digital content alone can represent itself as an *Asl* (asset) and that hardware should be considered merely as bookshelves. As he poignantly asked, when one registers a physical library as a Waqf, are the bookshelves considered Waqf as well? Of course, this is not the case. A physical library can be a Waqf with or without bookshelves. Therefore, he wondered why we would consider registering hardware as a Waqf in order to establish digital content as a Waqf? According to Interviewee 2, digital content alone can be registered as a Waqf, and furthermore, it should be allowed to be moved from one server to another, as the digital content itself is what is

protected under the laws of Waqf. Interviewee 2 also noted that this opinion is shared by the committee of AAOIFI.

In summary, the interviewed Islamic scholars disagreed as to whether digital content, by itself, can be registered as a Waqf. It is anticipated that when this issue comes to the attention of a wider community of Islamic scholars, this disagreement will continue. However, as explained in the previous section, such disagreement is common, both opinions are valid, and people have the right to follow either.

The creation/establishment of a digital Waqf library

The researcher posed three possible scenarios for the creation of a digital Waqf library to each Islamic scholar. These scenarios are based on the two types of digital libraries identified in the literature review: a hybrid digital library and an online digital library. The first scenario was based on the visited Waqf libraries in Mecca and Medina that could already be classified as hybrid digital libraries as they have both a physical and a digital library. The first scenario asked whether the digital version of a registered physical Waqf library would be a Waqf by default. As explained during the analysis of the current digital practices in Waqf libraries in Mecca and Medina, there was confusion among the caretakers of the visited Waqf libraries in terms of how to treat the digital versions of their Waqf libraries. Does the digital version of their Waqf libraries become Waqf by default? Should all of the Waqf conditions imposed on the physical Waqf library be applied to the digital content? Thus, this first scenario aimed to generate advice on the issue of digital content that is an extension of a registered physical Waqf library, as in the case of the visited Waqf libraries in Mecca and Medina.

Interviewee 1 believed that a digital library that is an extension of a registered physical Waqf library is not Waqf by default. Interviewee 1's rationale was that the digital version of a physical Waqf library, one that consists of the digitised materials of the full physical Waqf collection, is a benefit/usufruct of the original physical Waqf library. Interviewee 1 compared this case to someone taking a photograph on his phone of a printed book in a Waqf library. Would this photograph be Waqf? No, he said. Therefore, Interviewee 1 did not believe the conditions that apply to the physical Waqf library should be applied to the digital version.

However, per his opinion on how digital content could be registered as Waqf, Interviewee 1 did believe that once a digital library has been created as an extension of the original physical Waqf library, that library can register the hardware that preserves the digital content as Waqf and place the condition that the digital content on this specific hardware is not to be deleted, moved, copied, and so on. The library could thereby then impose Waqf conditions upon registering the hardware as a Waqf, though these conditions may differ somewhat from those imposed on the original physical Waqf library. This view of Interviewee 1 would heavily impact access to the digital version of a physical Waqf library; the issue of access is examined in detail in a later section.

Interviewee 2 believed that a digital version of a physical Waqf library is a Waqf by default, and thus all of the conditions applied to the physical Waqf library should apply to their digital version too. This means, for example, if a Waqf library aims to serve only the people of Mecca, then only the people of Mecca should have access to the digital version of this library. In contrast, based on the opinion of interviewee 1, access to a digital version of a physical Waqf library should have no restrictions, because the digital content is not Waqf by default. Interviewee 2's opinion was based on the old Islamic rule that a branch should always follow its origin (الفرع يتبع الاصل) (Alzohili, 2006).

The second scenario presented the case of a non-Waqf physical library that wishes to register only its digital library as a Waqf. The interviewees' responses to this scenario extend from their opinions on how digital content could be registered as a Waqf. Interviewee 1 believed that a non-Waqf physical library could register its digital library as a Waqf while keeping its printed collection as a non-Waqf collection. This opinion is based on his argument that digital content alone cannot be a Waqf. Therefore, Interviewee 1 stated that the library could register the hardware that preserves the digital library as a Waqf and then place the conditions that the digital content in this hardware is not to be deleted, moved, copied and so on and potentially that only certain people can access this digital library.

Interviewee 2 also believed that a non-Waqf physical library could register its digital library as a Waqf. Moreover, he agreed the library could register only the digital version of its library as a Waqf without registering the physical library, applying the laws of Waqf only to the digital

library. He argued that this was the case regardless of what hardware preserved the digital library.

The third scenario presented the case of an online digital library that wants to be registered as a Waqf. As defined in the literature review, an online digital library is a library that does not have a physical location and provides all of its services online. According to Interviewee 1, this case would follow his opinion on the issue of whether digital content alone can be a Waqf. Therefore, Interviewee 1 again argued that an online digital library could be a Waqf if the library registers the hardware that hosts and preserves the digital content as a Waqf. Conditions could then be imposed that the digital content within this specific hardware is not to be moved, deleted, copied, and so on, and that only certain people are to be the beneficiaries of this content.

Interviewee 2, in turn, based his response to this third scenario on his view that digital content alone can be a Waqf. He therefore argued that an online digital library can simply register itself and its digital content as a Waqf regardless of the hardware that hosts and preserves the digital content of the library. While Interviewee 1 argued that the hardware that hosts and preserves the digital content would have to be registered as a Waqf, so the online digital library would have to own the hardware, Interviewee 2 argued that it does not matter whether the hardware is owned or rented, because the digital content itself is what will be registered as a Waqf. Thus Interviewee 2's response to this scenario was more flexible.

Access and copyright within a digital Waqf library

The core issue surrounding digital Waqf libraries is whether content alone can be considered a real asset. The interviewees' views on this key issue determined their views on the standing of digital content within the Waqf context. However, it also shaped their approaches to copyright.

In the case of access to an online digital library registered as a Waqf, both interviewees agreed access should be based on the conditions imposed by the donor at the time of registering the online digital library as a Waqf. Whether the donor has imposed conditions on who can access the digital collection should determine whether access is open to the public. Moreover, both

interviewees agreed that Waqf libraries must bear in mind the issues of ownership and copyright when it comes to access. Both interviewees emphasised that Waqf libraries must honour and respect the copyright legislation of the country. As Interviewee 1 said, most Islamic committees today agree on respecting copyright law. Therefore, Waqf libraries should respect copyright by not sharing content unless the library has permission from the original author.

Interviewee 1 also mentioned that the International Islamic *Fiqh* Academy and other Islamic committees have decided that copyright law should be respected and is not in conflict with the conditions of Waqf. Interviewee 1 explained that if a person would like to donate a book as a Waqf to a Waqf library, and if this person is the owner of the copyright of this book, that person could ask the library not to make copies of the book and to follow the copyright requirements associated with the book. In this case, the Waqf library could either accept the book with those conditions or decline the donation. Indeed, even if a person donated a copyrighted book to a Waqf library and was not the owner of the copyright, and if the library accepted this book as a Waqf, the library would still have to respect the copyright laws associated with this book.

Interviewee 2 also stressed that Waqf libraries must respect the copyright legislation in the country and stay aware of whether copyright allows them to scan printed books. While visiting Waqf libraries in Mecca and Medina, the researcher did find that some Waqf libraries had scanned some printed book collections and were offering internal access to that digital content. However, based on both interviewees' opinions, Waqf libraries should always be checking to ensure they are allowed to scan the printed books that that they own as a Waqf. It is possible the libraries could own a specific copyrighted book as a Waqf but not have the right to scan that book or to give online access to it. Interviewee 2 further explained that if a person wanted to donate a collection of books or e-books to a Waqf library, and this donor owned the copyrights of this collection, the donor could ask the Waqf library to mind certain copyright requirements. The donor does have the right to place specific conditions. In this case, the Waqf library then has the right to either accept the collection as a Waqf with the conditions imposed by the donor, or to decline the donation. Though the Waqf library can request that certain restrictions not be imposed, if the Waqf library accepts a donation, it is obligated to honour the donor's restrictions. In addition, if a Waqf library purchases copyrighted books to

include in their Waqf collection, the library still has to respect copyright law and acquire relevant permissions from the copyright owner.

Copyright law needs to be minded by Waqf libraries, and Waqf libraries have to be careful when accepting donations. It needs to be known whether a donated item is copyrighted and whether the library has the right to scan and offer access to it online, even if the library is a public Waqf library. If the library believes the copyright restrictions on an item being offered as a Waqf donation will not be in line with the Waqf conditions of the library, the library could ask the donor to adjust certain access restrictions if the donor happens to be the owner of the copyright. And, if all else fails, Waqf libraries do have the right to decline donations.

If Waqf libraries accept a donation from a person who is not the copyright owner, copyright law still must be respected; the libraries can only offer access to the item in line with applicable copyright legislation, as the Waqf library owns only that specific copy as a Waqf. Thus, to share access to electronic books in a digital Waqf library, the library either needs to be the owner of the copyright or to gain permission from the copyright holder.

At the end of this chapter, and based on what is presented in this thesis, digital Waqf library can be defined as: *an organisation that exists physically or virtually (online), which holds, stores, and manages a Waqf registered, organised collection of digital content, accessible using computers by the targeted beneficiaries, whether remotely or in-house.*

In chapter five, the focus is on elaborating and trying to address two important issues that were concluded that they act as obstacles for the possible existence of a digital Waqf library, and therefore need to be addressed. These are whether digital content can be registered as a Waqf, and the absence of global recognition of the Waqf protection of intellectual property. These two issues need to be given attention, and they form topics for further investigations by scholars.

Applying the digital library framework to Waqf libraries in Saudi Arabia

In Chapter 2, digital libraries were defined as: *an organisation that exists physically or virtually (online), which holds, stores, and manages an organised collection of a digital content accessible using computers by the targeted users/community, whether remotely or in-house*. It also specifies that digital libraries must have the following minimal components to recognise a digital library: organisation, digital content, technology, policy and users.

Chapter 2 also specifies that there are two main types of digital libraries. The first is a hybrid digital library, which exists based on an original physical library and has a physical location users can visit. A digital library reflects the original library and provides access and digital services both on-site and via remote means (online) within the bounds of its policies. The second type, the online digital library, exists exclusively online and does not have a physical location that users can visit to gain access to collections and services. Instead, an online digital library provides access and services via online channels, such as websites, email, online chats and social media. An online digital library may have a physical location for servers, employees and management to maintain the online platform.

Using the definitions given above, all eight libraries visited in Mecca and Medina can be classified as hybrid digital libraries because they all have physical locations and have some digital presence and/or digital content, with some providing digital services that vary from one library to another, as explained in the Findings chapter. This section examines each of the minimal core components of a digital library as they relate to the Waqf libraries in Mecca and Medina, as well as the interviews with Islamic scholars, to illustrate and investigate any possible obstacles and abnormalities that would affect the establishment of a Waqf compared with a non-Waqf digital library. This section aims to determine the main issues/gaps that need to be addressed to lay the groundwork for the smooth development of a digital Waqf library, and also aims to elaborate on these issues later in Chapter 5. Following, the mentioned digital library components will be examined in a systemic way.

Organisation

The literature review explained that a digital library can be an organisation that mainly exists physically and provides services online or one that exists only virtually and provides services only online; the British Library is an example of the first case and the HathiTrust library is an example of the second. For non-Waqf digital libraries, it is evident which type of digital library a user is accessing. For example, if a user logs into the University of Glasgow library's website, it is clearly an academic library and an academic institution, and the same goes for the website of the British Library, which is a national library.

In contrast, upon the visit to Waqf libraries in Mecca and Medina, it was found that some Waqf libraries exist in dedicated Waqf bodies, such as the King Abdul-Aziz Complex for Waqf libraries in Medina, Makkah Al Mokaramah public Waqf libraries and the family Waqf libraries; others exist in non-Waqf organisations; like the Waqf libraries that exist within the visited academic libraries of the Islamic University in Medina and Umm Al Qura University in Mecca. At the beginning of the Findings chapter, these libraries were called academic Waqf libraries, by which it is meant academic libraries that hold different collections or individual Waqf libraries. It was noticed that the librarians who work at the dedicated Waqf organisations have more knowledge and understanding of the Waqf status of their organisation, their Waqf collection and what Waqf means. In contrast, in non-Waqf organisations, librarians have less information about the Waqf section of their libraries; they usually have one or two expert librarians who are knowledgeable about their Waqf collection, while the others are merely serving the main goal of their organisation. In the case of the two academic libraries visited, the goal is to serve the academic community and provide services and information about their academic collection.

Unfortunately, as mentioned earlier in this chapter, none of the dedicated Waqf organisations that were visited in Mecca and Medina had a remote digital presence, such as a remote website, so a comparison with the digital presence and website of non-Waqf organisations that hold Waqf libraries was not possible. As mentioned, the Waqf library of the holy mosque of Medina has an internal website and is only accessible physically through their on-site computers inside the library. However, as mentioned in the Findings chapter, it is hoped that

one of the visited Waqf libraries in Mecca or Medina will establish a virtual presence in the near future that is accessible through a remote website.

Looking at the non-Waqf organisations of the Islamic University Library and Umm Al Qura Library, they are mainly academic organisations and separate their Waqf collection from the rest of their academic collection, and that is also reflected in their libraries' websites. At the beginning of the Findings chapter, it was mentioned that these two academic libraries have yet to digitise their Waqf collections; however, they do mention their Waqf collections on their websites under a 'special collection' option and give some information and background about them. In addition, searching through their catalogue reveals sources held in the Waqf collection, with a note informing users that the resource is available in the 'special collection' and requires special permission to access it.

As shown in Figure 10, the main page of the academic library of Umm Al Qura in Mecca has an option at the top of the page that says 'private libraries'. This includes their Waqf libraries' collection; for some reason, both Umm Al Qura and the Islamic University academic library websites refer to 'private libraries' instead of Waqf libraries (see Figure 11 for the website of the academic library of the Islamic University). It is true that those Waqf libraries within those academic organisations represent different people and were their 'private collections' before they were donated as Waqf; however, it is suggested that calling them 'private Waqf libraries' is to reflect their Waqf status and to spread awareness among people and visitors about the nature and meaning of a Waqf library and to differentiate them from non-Waqf private libraries where the donor wants the donation to be accepted as a normal donation rather than a Waqf.

Although the website of the Islamic University academic library refers to their Waqf collection as a 'private collection', upon the researcher's visit to the library, when going up to the first floor where they keep their Waqf collections in separate rooms and separated from the rest of their academic collection, there is a big sign on the wall saying 'Waqf libraries' with an arrow to indicate which way to go to find their Waqf libraries (see Figure 12). It is recommended that the term 'Waqf libraries' or even 'private Waqf libraries' would be more useful in non-Waqf organisations when referring to Waqf libraries that they might hold.
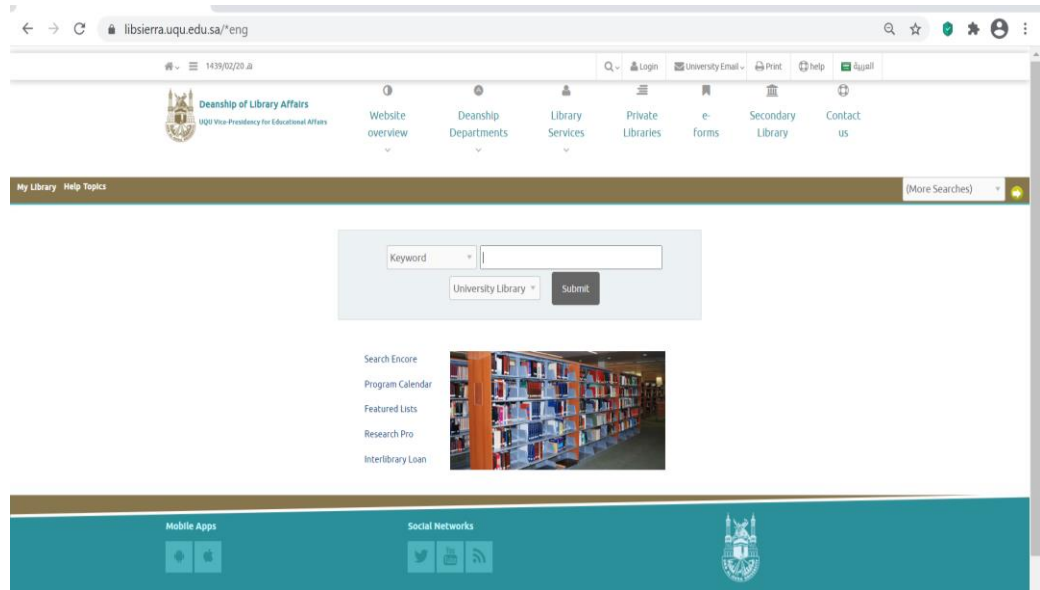
Figure 10. Main page of the academic library of Umm Al Qura University; at the top of the page is the option 'private libraries', which refers to Waqf libraries (https://libsierra.uqu.edu.sa/*eng).

Figure 11. Dedicated page for the Waqf libraries' collection within the Academic Library of the Islamic University in Medina; however, the page is titled 'private libraries' (المكتبات الخاصة) instead of 'Waqf libraries' (https://www.iu.edu.sa/site_Page/145230).

Figure 12. The first floor of the academic library of the Islamic University, where an arrow indicates the way to the Waqf libraries' collection, which is separate from the library's normal academic collection. Sentence above the arrow says (Waqf libraries), while in their website they refer to them as private libraries.

The term 'private libraries' could be vague, and at first glance, it could mean either Waqf or non-Waqf private libraries. Moreover, using the term 'private Waqf library' to indicate Waqf libraries residing within non-Waqf organisations would help in spreading knowledge about the existence of Waqf libraries and Waqf protection of intellectual property, which is underrated and globally unknown/unrecognised – unlike Waqf protection for real estate and physical items, which are widely recognised and massively written about and investigated, as mentioned in the literature review.

Even Western non-Waqf organisations sometimes have private libraries within their general collections, however, these are just private libraries and do not fall under any Waqf rules. For example, the King's Library in the British Library is a private library donated by George IV to the British Museum Library in 1823. Following the establishment of the British Library, the collection was moved there in 1998. This private library in the British Library is preserved in a separate room (see Figure 14), like the academic libraries of the Islamic University and Umm Al Qura University, where private Waqf libraries are kept in separate rooms (see Figure 13 for an example).

Figure 13. Private entrance to the Waqf libraries in the academic library of Umm Al-Qura University, which is kept separate from the normal academic collection of the library in a private room and requires fingerprint access.

Figure 14. King's Library, a private library, is situated in a private room in the British Library (https://www.bl.uk/about-us/our-story/explore-the-building/kings-library-tower-architecture-and-design#).

It is important to explicitly distinguish between Waqf and non-Waqf collections within non-Waqf organisations, which will help smooth the way to start gradual recognition of Waqf protection of intellectual properties. The interviews with the two Islamic scholars did not

contradict the possibility of physical and digital Waqf libraries within dedicated Waqf organisations or non-Waqf organisations. Dr Merah mentioned that it is normal for an organisation to have Waqf and non-Waqf properties and stated that an organisation can go as far as saying that only the digital version of the printed collection is Waqf, while the physical one is not Waqf, or the other way around.

While we have yet to see a dedicated online Waqf organisation, akin to the HathiTrust, it should be expected that such an organisation would clearly state its Waqf status and explain what this means. Hopefully, this thesis will encourage the emergence of dedicated online Waqf organisations by exploring, drawing attention to and addressing some of the main obstacles that this type of Waqf organisation may face. It has been promised by the visited hybrid Waqf organisations, such as the visited family Waqf libraries and the visited mosque libraries, that they are in the process of developing remote virtual presences soon. The emergence of hybrid and online Waqf organisations will help in promoting and encouraging the proliferation of these kinds of organisations and promote the concept of a digital Waqf library while educating people and drawing their attention towards what Waqf protection means for intellectual property.

Digital content and technology

The two components of digital content and technology are being discussed under one heading as they are related and mutually interacting: We use technology to operate, create, store and retrieve digital content. A digital Waqf library needs technology to store its digital content and use servers to collect, preserve and retrieve its holdings. Both interviewed Islamic scholars endorsed the use of technology in Waqf libraries and thought it an important step towards developing Waqf libraries and their services. However, there are major issues when it comes to reserving and storing the digital content of a Waqf library and whether to treat that as a Waqf, which are key to answering whether we can register a digital library as a Waqf.

The digital content of a digital Waqf library can be acquired either by scanning physical documents of the Waqf library or acquiring born-digital materials and registering them as Waqf to be part of the digital Waqf library's collection. However, while the researcher visited

the Waqf libraries in Mecca and Medina, all the digital Waqf content that existed within the Waqf libraries that already have a digital Waqf collection was created by scanning and digitising their collection, and most of them, as explained, are in the process of digitising their collections (see Figure 15).

At the beginning of the Findings chapter, the digitisation status of each visited Waqf library was explained in detail. Therefore, as of now, no evidence was found of born-digital content as a Waqf, whereas born-digital content is an important component that exists in non-Waqf digital libraries today and can be found in many settings, such as within university libraries' websites such as the website of the library of University of Glasgow. Looking at the possible existence of a digital Waqf library, we cannot just rely on the content of a digital Waqf library to be a digitised content of a physical collection; we also have to understand how born-digital content can exist as a Waqf within a digital Waqf library.

Figure 15. The Scanner used in the Al Busati family Waqf library in the process of digitising their Waqf collection. Photograph taken by the researcher during his visit to the library.

The fundamental issue that was found when it came to digital Waqf content (whether digitised or born-digital) is that the two Islamic interviewees expressed different views when it comes to registering digital content as a Waqf. Such views are ultimately important in determining

how a digital library can be registered and ultimately exist as a Waqf. Sheikh Dr Bahjat does not see digital content/data as a real tangible asset, while Dr Merah thinks that digital content alone can be a real tangible asset. These two different opinions translate into two different ways of registering a digital library as a Waqf and will result in generating a different scenario that needs to be considered to explain how to accomplish this. (These scenarios are explained in detail in the Discussion chapter).

The opinion of Sheikh Dr Bahjat means that digital content alone cannot be registered as a Waqf without considering the hardware that operates it; in his opinion, digital content/data are not real tangible assets, and one of the laws of Waqf is that a Waqf must be such an asset. In the analysis of the interviews, the mechanism by which each scholar considers a digital library can be registered as a Waqf is explained.

Sheikh Dr Bahjat requires that, to register as a digital Waqf library and register the digital content as a Waqf, the servers that hold the digital content have to be owned by the donor and they are the ones that can be registered as a Waqf. In Chapter 5, it is elaborated on the issue of whether digital content alone is a real tangible asset, which is the key to answering whether and how a digital library can be registered as a Waqf. The two different opinions, which follow two different approaches, mean that the recommendation people follow will determine whether a digital Waqf library can exist if it owns all the data preservation and storage hardware as servers. The importance of this issue is that while some libraries do own and fully operate their servers and storage hardware, some prefer to rent or use the cloud service to operate and maintain their digital content for various reasons, including the cost of maintenance.

A significant part of the cost of digital preservation is associated with storage hardware. Because the provision of servers is considered a necessary service, the cost of digital preservation "includes costs associated with necessary services, servers, staff, storage, monitoring, and preservation interventions" (Corrado & Moulaison, 2014, p. 28). Moreover, the larger the quantity of digital content, the more extensive the required storage services become, which increases costs. Therefore, some libraries choose not to own their storage preservation units on-site; instead, they contract with other providers to hold and store their digital content (Corrado & Moulaison, 2014).

Outsourcing digital storage will save money as it "allows them to avoid locally hosting multiple servers and equipment and constantly dealing with hardware failure, software installs, upgrades, and compatibility issues. For many organisations, cloud computing can simplify processes and save time and money" (Goldner, 2010, p. 3). Therefore, when establishing a digital Waqf library, the two opinions of Islamic scholars need to be carefully examined. Future Islamic studies should investigate whether digital data/content can be treated as a tangible asset, because this will determine whether a digital Waqf library can register its digital content as a Waqf while the content is stored on and hosted by rented servers and storage units. This issue will be elaborated on in the Discussion chapter, where the opinion of the two Islamic scholars regarding digital content in different scenarios is explained to make it easier for readers to understand how a digital Waqf library can be registered as a Waqf from a religious point of view.

The interviews showed that digital content needs to be accounted for when it comes to creating a digital Waqf library. The question that needs to be answered is whether anyone can register a digital library as a Waqf. The response will depend on the different opinions of the interviewed Islamic scholars, resulting in different scenarios that aim to address the question. Since this is an important and fundamental point, it is elaborated on it in the Discussion chapter, where the different possible scenarios that can be followed to register a digital library as a Waqf are outlined.

Policy

We can identify two types of Waqf libraries that were visited in terms of policy – ones that apply only the Waqf policies to their libraries because they own the whole collection, such as the visited Al-busati and Al-Farouqi family Waqf libraries. Those libraries own old collections that existed even before the emergence of the Saudi Arabian Copyright Act (2003); therefore, the Waqf laws and conditions still apply to those libraries and are respected forever. When those libraries create digital versions of their libraries, they will also apply the Waqf laws and conditions to the digital version of their libraries, as the researcher was told during his visits.

Regarding the other visited Waqf libraries, such as the public Waqf libraries and the mosque Waqf libraries, the case of policy becomes more complicated. On the one hand, these libraries

can be the same as the family Waqf libraries when it comes to old Waqf content that existed before the emergence of copyright laws. The dilemma here is that those Waqf libraries accept donations as a Waqf from people, and these days, the donations are mostly modern physical books that are automatically protected under the copyright laws in Saudi Arabia. Most of the people who donate books to those libraries do not own the rights of the donated books; rather, they own only the specific copies of the books.

The researcher discussed this issue with the interviewed Islamic scholars, and while there is yet to be an act to regulate the protection of Waqf for intellectual properties (That usually exist within a digital library like e-books and digital articles), both Islamic scholars agreed that copyright laws within the physical and digital Waqf libraries must be respected and honoured. Moreover, the discussion with the Islamic scholars delineated instances in which Waqf libraries may encounter different possible conflicts between Waqf law and copyright. Such scenarios and how to possibly address them were also discussed with the Islamic scholars as follows.

The first scenario was a case in which the original author and copyright holder would like to donate a book/e-book to a digital or physical public Waqf library. In this case, the Waqf library could ask the donor to lift the copyright restrictions on the item being donated, because such restrictions sometimes contradict the conditions of a Waqf library. A public Waqf library aims to serve the public, thus, receiving a copyrighted donation may restrict the library's ability to have the freedom to use those items based on the public Waqf library's conditions. If the donor who wants to donate a copyrighted item is the original owner of the copyright, he/she is encouraged to relieve the Waqf library of the obligation to apply the copyright law. At the same time, this donor still has the right to ask the Waqf library to respect the copyright laws associated with the copyrighted donation based on the copyright laws that are enforced in the country where the donation took place. In this case, the Waqf library may accept the donation while respecting the conditions of the donor and the existing copyright laws; however, the library also has the right to refuse to accept the donation if they believe this kind of restriction goes against the nature of the public Waqf library. Notably, a donor who wants to donate a collection or e-collection to an existing digital/physical Waqf library also has the right to impose any other conditions (not just copyright). If the Waqf library accepts the

donation with the imposed conditions, then those conditions have to be applied and respected forever.

In the second scenario, if a donor wants to donate a collection or e-collection to an existing digital/physical Waqf library and he/she is not the original author and copyright holder and is merely someone who owns that specific exact copy of those books or e-books, in this case, if the Waqf library accepts this donation, it has to respect the copyrights associated with the donation. This is because the donor in this case is not the copyright holder and cannot negotiate the conditions of the use with the owner. At the same time, the Waqf library has the right to refuse this donation if it believes that it goes against the purpose of the public Waqf library. This second scenario is very common, as observed by the researcher upon visiting Waqf libraries in Mecca and Medina. In these public and mosque Waqf libraries, people usually bring copyrighted items they bought from a publisher and donate them to be included in their collections in order to gain *Ajor* and forgiveness from God. However, as mentioned earlier, this is a tricky situation for these Waqf libraries, as they have to observe the copyright laws and the library's Waqf laws and conditions upon accepting these donations.

The third scenario was also observed by the researcher when visiting Waqf libraries in Mecca and Medina. Some public Waqf libraries bought copyrighted physical books from publishers to be included in their collections, after which they scanned and digitised the books to be added to their digital libraries. In this case, the Waqf libraries must consider the copyright laws; even though the books were legally bought, they must check whether they were allowed to scan those books in the first place or if they required permission from the publishers/authors.

Ultimately, the case of Waqf policy in physical and digital libraries, among copyright policy and other globally known policy, is an important issue to address. In the Discussion chapter, this issue is elaborated on and argued why it is important to recognise and address it to facilitate the smooth development of a digital Waqf library.

Users

Regarding the user component of a digital library, in the literature review, it was mentioned that, because of the mass production of printed books, libraries have slowly shifted to focus on users instead of being closed and mainly focusing on collections as the main reason for their existence (Hansson, 2010). This shift is important because it could be what later resulted in the emergence of different types of libraries that are identified based on their targeted users, goals and management. Moreover, Issa (2009) thinks that the reason there are different types of libraries is that it is difficult for one library to serve the needs of all kinds of users. Therefore, the creation of different types of libraries came as a way to satisfy those different needs. Hansson (2010) comments, "Traditionally there has always been a difference between types of libraries, which are not only defined in relation to their patrons and users, but also in relation to each other" (p. 12).

Users are not the main reason for the creation of digital Waqf libraries. Generally, Waqf is encouraged for religious reasons to seek reward and forgiveness from God. Therefore, users do not play a big role in encouraging the establishment of physical or digital Waqf libraries, although a Waqf is usually aimed at a certain group of beneficiaries. Based on the interviews with the two Islamic scholars, it can be seen that the specific beneficiaries of a digital Waqf library, as for a physical one, are determined by the donor. A good example is the Al Busati family Waqf library that was visited, where the main beneficiary is the family. The family stated that, even in the digital version of their library, access will be restricted based on the library's Waqf condition.

If we are to have a digital Waqf library, it is not easy at first glance to determine what kind of user the library is serving; this contrasts, for example, with academic or school libraries, where the targeted users are clearly known. A digital Waqf library can be targeted and limited to serving a specific group of people, or it can aim to serve the public; it depends on the conditions imposed by the donor at the time of the donation. Therefore, it is important for the conditions associated with a digital Waqf library to be clear and posted explicitly on the digital library website so people can understand who the targeted users of a digital Waqf library are.

For a long time, when people notified others that a book or collection was a Waqf, they used to write the notice on the book or manuscript itself to protect it from been sold or given away and to determine explicitly who the targeted users for this Waqf book or collection were; upon the researcher's visit to Waqf libraries in Mecca and Medina, and talking with the librarians of the public Waqf libraries like the King Abdul-Aziz Complex for Waqf libraries in the Medina and Makkah Al Mokaramah Waqf libraries, the researcher was told that, historically, some of the Waqf libraries in those organisations aimed to serve a specific types of user; however, long after the first registration of those libraries as Waqf libraries, those targeted and conditioned users no longer existed, the specialised court in Saudi Arabia would look individually at each case and determine the best action to be taken for those libraries. In most cases, the court would order them to be placed in one of the public Waqf organisations, like the complex or holy mosque library, to keep them from being lost or neglected and to keep protecting them as Waqf but shifting the targeted users to the public.

Only the specialised court can change the targeted users of a Waqf library or Waqf collection. Changing the targeted user in a physical or a digital Waqf library is not a straightforward case because it is important to respect and honour the donors' conditions. An example from the researcher's visit is shown in Figure 16. The figure depicts an old Arabic manuscript (1696 AD) with Arabic writing on it saying, "This is a Waqf for the *Rebat* of Othman bin Affan in Al Medinah Al Munawrah", meaning that this book is a Waqf for the people who live in and attend an institution that used to exist in the holy city of Medina, namely, a *Rebat* رباط called *Rebat* Othman bin Affan.
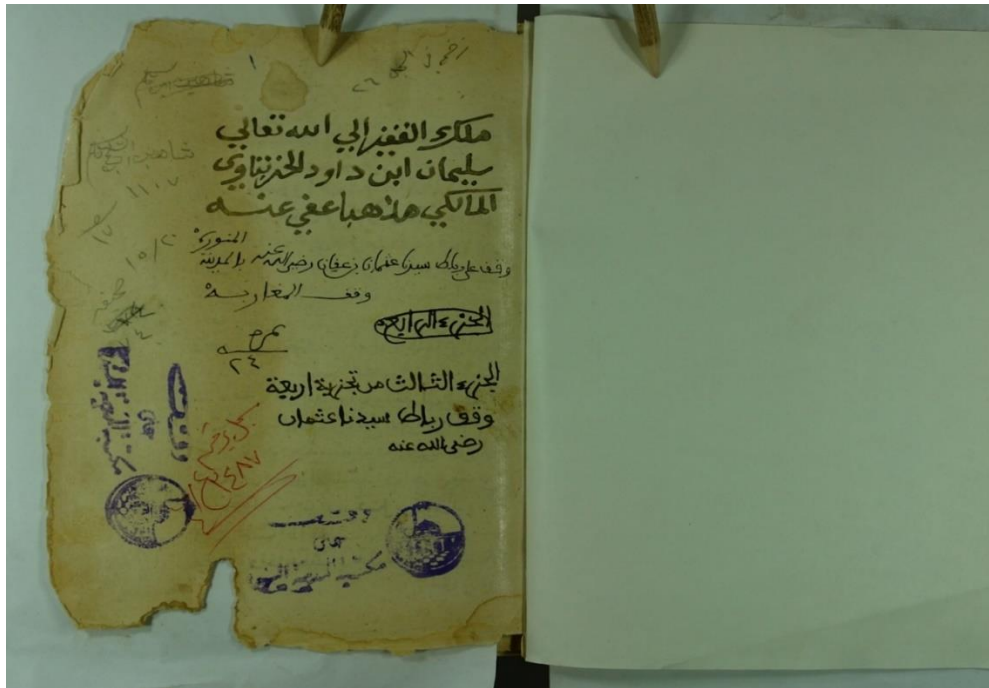
Figure 16. Old Waqf Arabic (dated 1696 AD) manuscript with a note to specify the targeted users/beneficiaries of this manuscript; the second paragraph identifies it as a 'Waqf for the Rebat of Othman bin Affan'. Today, this manuscript is in the King Abdul-Aziz Complex for Waqf libraries in Medina. The photograph was acquired by the researcher from the complex.

A *Rebat* is a type of school that used to exist in Mecca and Medina where people could live and be educated; since this *Rebat* does not exist anymore, we can see at the bottom of the manuscript a blue stamp saying, "Waqf on the library of Al Medina Al Munawrah". As the targeted users of this Waqf manuscript no longer exist, it was moved to the library of Al-Madinah Al Munawrah (now King Abdul-Aziz complex for Waqf libraries) to keep protecting it as a Waqf, with the targeted users changed by court order.

This mechanism of changing the target users will also apply to a digital Waqf library in the future; even with registering born-digital libraries as a Waqf, the targeted users will be determined at the time of registering the library, and accessibility details will have to be made explicit on the digital library's website and preferably on the digital document. As explained above, once the digital library is registered as a Waqf, the conditions associated with this registration (including the targeted users) cannot be changed unless there are unprecedented circumstances, and this accessibility can be changed by court order only.

The example in Figure 16 shows the importance of the enforcement of Waqf; in Saudi Arabia, people take Waqf seriously and have specialised organisations and courts to protect and enforce it. Therefore, for a digital Waqf library to exist successfully, it needs to exist in an area/environment where Waqf is enforced and well respected. As discussed earlier, global recognition of the Waqf protection is needed for the future success of digital Waqf libraries is required. Otherwise, digital Waqf libraries could appear and be successful only in the countries and areas where Waqf laws and Waqf protection of intellectual properties are applied.

There are some important points to consider. The two different opinions of Islamic scholars regarding whether a digital version of a registered physical Waqf library would be considered a Waqf by default affect both users and access. Therefore, if a digital Waqf library was established based on a physical Waqf library, following the opinion of Sheikh Dr Bahjat that a digital version of a physical Waqf document is not Waqf by default, this specific Waqf library could give access to users other than those specified in the conditions of the physical Waqf library, while access to the physical Waqf version would still be protected and only serve the specified group. In contrast, following the opinion of Dr Merah that a digital version of a physical Waqf library is Waqf by default, the online digital Waqf library access would have to be restricted to the users specified by the conditions associated with the physical Waqf library. This only applies to hybrid digital Waqf libraries – those based on a physical Waqf library. However, if starting a digital Waqf library from scratch, meaning that none of the content is Waqf yet, the donor can list the targeted beneficiaries of the Waqf digital library, which then should be honoured and acted upon. It is also important to note that when it comes to a digital Waqf library and its usage, a Waqf can be Waqf *Manfa (منفعة)* or Waqf *Istekhdam (استخدام)*, meaning a Waqf can be established to take advantage of the Waqf property or to take advantage of the revenue of the Waqf, and this will heavily affect access and types of users for a digital Waqf library.

The scholars mentioned that even within a digital Waqf library, the donor will state whether the library is to be a *Manfa* or *Istekhdam* library. For example, if a digital Waqf library's donor established it as a Waqf *Istekhdam*, the digital content of the library is the one that the specified beneficiaries will benefit from, and no access to others can be granted.

If it is determined to be Waqf *Manfa*, one that generates revenue, the revenue of the digital Waqf library will be given to specific people or to a group forever. In this case, there are no restrictions on who can use the digital Waqf library, and anyone can pay to access the content. However, the revenue must be given to the specified beneficiaries forever. These two ways of operating a Waqf are common among the other types of Waqf properties (since a digital Waqf library has not been created yet). For example, when donating a piece of real estate as a Waqf, if the donor owns this building and wants to donate it to the poor people of a city, the donor can say that this building is a Waqf for the poor so they can live in it forever; alternatively, the donor can say that the building must be rented, and the revenue shall be given to the poor forever. Either of those options is possible and should be honoured and protected in perpetuity.

Chapter 5: Discussion

It is clear from the site visits and interviews that there are disagreements on the standing of digitised content from Waqf libraries in Saudi Arabia. It is therefore incumbent upon the community to think carefully about the implications of digitisation and to design and implement policies that are reflective of those implications. Before considering some of these policies, it is important to begin by weighing the complex religious issues surrounding digital Waqf libraries as illuminated by the interviews with the two Islamic scholars. Therefore, the researcher identifies two main issues that need more attention and addressing in the future in order to facilitate the road to establish a solid digital Waqf library.

Digital content issue

Through the interviews with two Islamic scholars, it was noticed that a key element that can determine whether a digital library can be registered as a Waqf is the digital content. Therefore, the following discussion will provide some answers to the question of whether a digital library can be registered as a Waqf.

The issue is that Waqf has always been tied closely to tangible assets with known locations that have value and can be seen, such as lands, farms, physical libraries, wells, and so on. However, when we want to register a digital library as a Waqf, this entails the registration of digital data, and whether to treat digital content (data) as a real tangible asset is a continuous debatable issue. The two Islamic scholars had different opinions on whether to treat digital content as real tangible assets. In the Literature review chapter we discussed that the issue of whether to consider digital data/content as tangible assets, while it might be new related to Waqf and the Islamic point of view, it raised a dilemma in fields other than religion and we gave different examples.

The case of whether data can be considered as tangible assets from the Islamic point of view has yet to be examined by an adequate number of Islamic studies and committees from different Islamic schools. The disagreement between the two interviewed Islamic scholars in the current thesis is an early indication that people will continue to have different opinions when this issue is investigated by scholars from the four main Islamic schools. However, Islamic scholars or committees typically give exemptions in cases related to Waqf. In some Islamic schools, even though transferable items cannot be registered as Waqf, an exception has been made, that is, physical books can be registered as Waqf even though they are transferable items. This is because books are considered important tools in shaping Islamic civilization by delivering knowledge to people.

The two Islamic interviewees expressed different opinions and approaches in dealing with this issue. These two distinct approaches result from the lack of Islamic studies that address whether digital data, in their current format, can be considered as a real, tangible asset alone. However, as presented in the Methodology chapter, the existence of conflicting opinions between Islamic scholars is very common even within the concept of Waqf itself. The Literature Review chapter mentioned the differences in dealing with Waqf issues among the four main Islamic schools. These depend heavily on whether we consider that digital data should be treated as tangible assets regardless of where they are stored.

Therefore, the first possible way to register a digital library as a Waqf is based on the opinion that digital data cannot be considered as real tangible assets alone, and this perspective is based on the view of the Islamic interviewee, Shaikh Dr Bahjat, as explained earlier: if you do not believe that digital data can be considered as real tangible assets, then this entails that an online digital library cannot be registered as a Waqf, because it is a virtual body.

However, there is a solution for those who subscribe to this idea, according to Shaikh Dr Bahjat. A library can register the specific servers/hardware (which are real tangible assets) that hold and preserve the digital data or the digital content of the digital library as a Waqf. Once these are registered, then the library can place conditions that the digital contents existing within these physical servers cannot be deleted, removed, and inherited, and so on.

This method enables people to have a digital Waqf library as the server, and its contents will be protected under the laws of Waqf. With this method, the digital Waqf libraries can be created because of the conditions placed by the donor and not because the digital data themselves are considered as a Waqf. Therefore, the digital contents are protected, because we have to always honour the conditions of the Waqf. However, following this approach may lead to some difficulties. First of all, the digital content of the library can exist only in the specific server that was registered as a Waqf. Hence, the library cannot be allowed to move the digital contents to another server according to the Waqf laws, unless there is a very good reason to do so. Moreover, even if this condition is met, relocating the data cannot be done without the authorisation of a judge.

Second, this approach means that the digital library has to own the servers that contain the digital contents. Waqf donation has to be owned by the donor at the time of the donation. Therefore, following this opinion, if a digital library is renting the servers/hardware that host their digital library, then it cannot register the library as a Waqf because of the prohibitions against rented assets.

Following this opinion might somehow be an obstacle because libraries often use rented servers to host their digital content, and it can be quite costly for a digital library to buy and maintain its own servers. Therefore, following the first opinion will only work for digital libraries that have the financial ability to buy and operate their own servers where they can store and host all their digital content.

Interestingly, the argument presented by Shaikh Dr Bahjat has also been discussed from a non-religious point of view by Kostagiolas (2012), who stated that "one may argue that a tangible asset (e.g., a computer) is actually required for managing the intangible library information system of collection circulation" (p. 51). This view is somewhat similar to that proposed by Shaikh Dr Bahjat. However, this could cause problems, as not every library is capable of owning and maintaining servers to support its digital content. Similar to this idea, Kostagiolas (2012) explained that:

> Intangible assets may be viewed distinctly and separately from any tangible
> asset. In other cases, a library that intends to profit from the value of a

particular intangible asset may or may not possess the associated tangible

assets, or may possess only a part of the tangible assets required. (p. 51).

The other way in which a digital library can be registered as a Waqf is based on the opinion of the second Islamic interviewee, Dr Merah: digital data/contents by themselves can be considered real tangible assets and can represent themselves regardless of the hardware that hosts such contents. Following this opinion means that a digital library should simply register its digital contents as Waqf regardless of where they are physically preserved. Therefore, the contents of a digital Waqf library (whether it is a digitized or a born-digital content as we explained in the literature review) can float easily in the virtual world without the need to physically tie them down to a specific location and server/hardware. This approach makes it easier for people to donate to and register digital libraries as Waqf libraries. Even though no digital Waqf libraries have been established, if the second opinion is to be adopted and authenticated by more Islamic committees in different Islamic countries, this means that we might soon witness the emergence of the first ever digital Waqf library.

According to the second Islamic interviewee, Dr Merah, digital contents, such as e-books and apps., can be considered original tangible assets based on recent developments in the technological world. Nowadays, we are heading toward a complete paperless society. Therefore, it is important to be flexible while still maintaining Islamic rules or laws when dealing with the vast developments in digital trends. Yet, it may be devastating for the Muslim community if we reach a point wherein all knowledge is stored virtually, and Waqf knowledge would be suspended due to the lack of regulations that approve and organise how people can donate digital content as a Waqf. Indeed, physical Waqf libraries contributed heavily to shaping and developing Islamic civilisation. Therefore, it is important that Waqf can somehow continue to exist in the virtual world. In relation to this, Toemoe, Yeldham, & Milosevic (2017) discussed an interesting theory about the case of whether to consider data as tangible assets:

> Take for example, a paper document with valuable information on it. It is
> uncontroversial that the document (and the data on it) is tangible. Why should
> that possibly change once that same data and information has been scanned and

saved to a computer system becoming an electronic file? That file takes up space on a hard drive (somewhere), can be touched with a mouse or manipulated by hand on a tablet. It can be edited, emailed, deleted or copied – all of which are manifestly physical acts. In this sense, the traditional definitions of "tangible property" can be used against the orthodoxy of some courts and insurers. (p. 3).

Hence, we can present the different options and scenarios through which a digital library can be registered as a Waqf based on the distinct perspectives of the two interviewees. These are mainly based on the two types of digital libraries that were identified earlier, namely, hybrid and online digital libraries. In the Methodology chapter, which explained the reasoning for acquiring Islamic fatwas and opinions, it was discussed in detail that the existence of different opinions and ways of handling an issue does not invalidate each other. Rather, all opinions are to be considered suitable, and from these, the people can choose the option they would like to follow. Furthermore, disagreements between Islamic scholars are very common, even in Waqf-related issues.

The first scenario, as shown in Figure 17, is the case of the hybrid digital non-Waqf library, which aims to register its digital library as a Waqf.
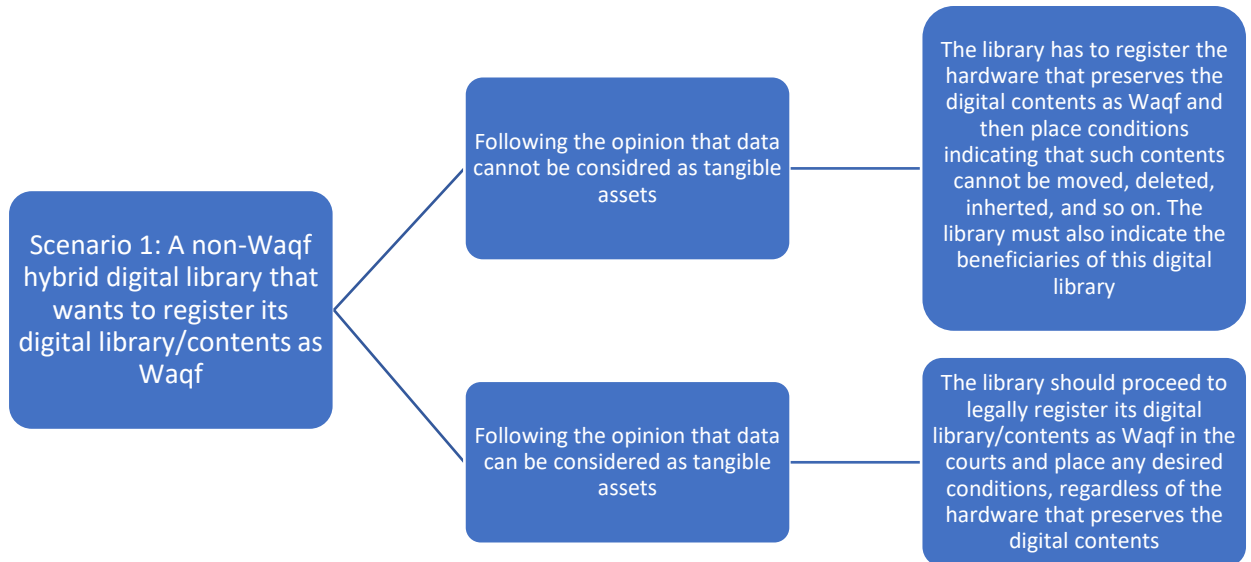
Figure 17. Scenario 1: A non-Waqf hybrid digital library that wants to register its digital library/contents as Waqf.

In the first scenario, if the first opinion is followed, which requires the registration of the hardware as a Waqf, such hardware must be owned by the library and not rented, a library can decide to register only its digital library and contents as Waqf while keeping the physical versions of the same collections protected under copyright law and not registered as Waqf.

The second scenario, as shown in Figure 18, is the case of a hybrid Waqf library that aims to create a digital library and digital versions of its physical Waqf collections. In this case, would the extended digital versions of the physical Waqf collections be considered Waqf by default? This scenario applies to the visited Waqf libraries in Mecca and Medina, as they are already registered physical Waqf libraries with digital versions of their physical Waqf collections.
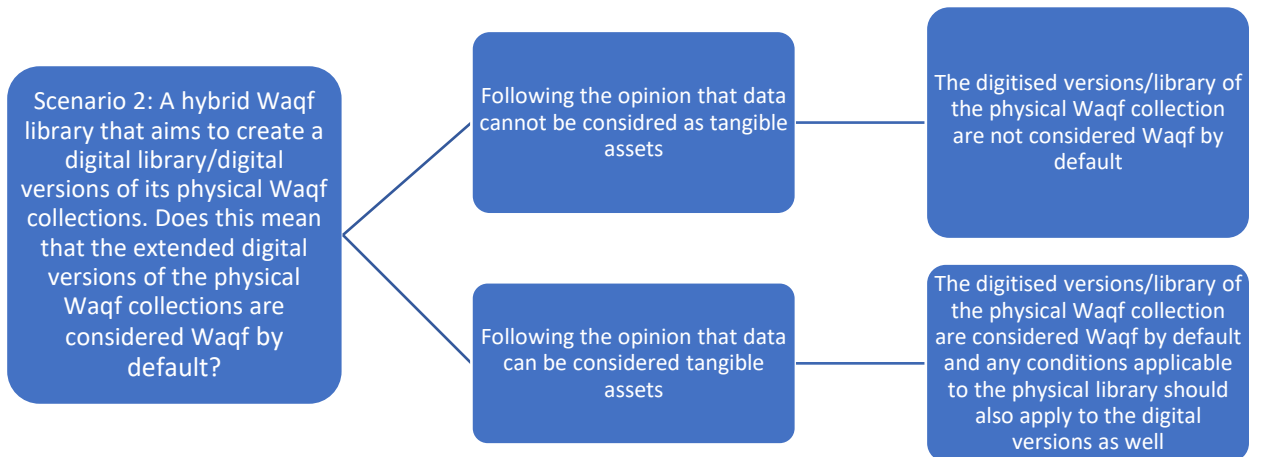
Figure 18. Scenario 2: A hybrid Waqf library that aims to create a digital library/digital versions of its physical Waqf collections. Does this mean that the extended digital versions of the physical Waqf collection can be considered Waqf by default?

In this second scenario, it is important to note that following the first opinion means that any conditions that are originally placed on the physical Waqf collection would not apply to the digital version. Furthermore, following this opinion means that if the library would like its digitised collection to also be registered as a Waqf, then it must register the servers that host the digital contents as Waqf, after which the library must place conditions indicating that the digital content within this server is not to be deleted, moved, and so on.

The third scenario, shown in Figure 19, is the case of an online digital library that would like to register as a Waqf but has no actual physical presence.

Scenario 3: An online digital library that would like to register as a Waqf

Following the opinion that data cannot be considred as real tangible assets

The library has to register the hardware that preserved the digital contents as a Waqf and then place conditions indicating that the digital contents withn such hardware should not be moved, deleted, inherted, and so on. Furthermore, beneficiaries of the digital library must also be indicated.

Following the opinion that data can be considered tangiable assets
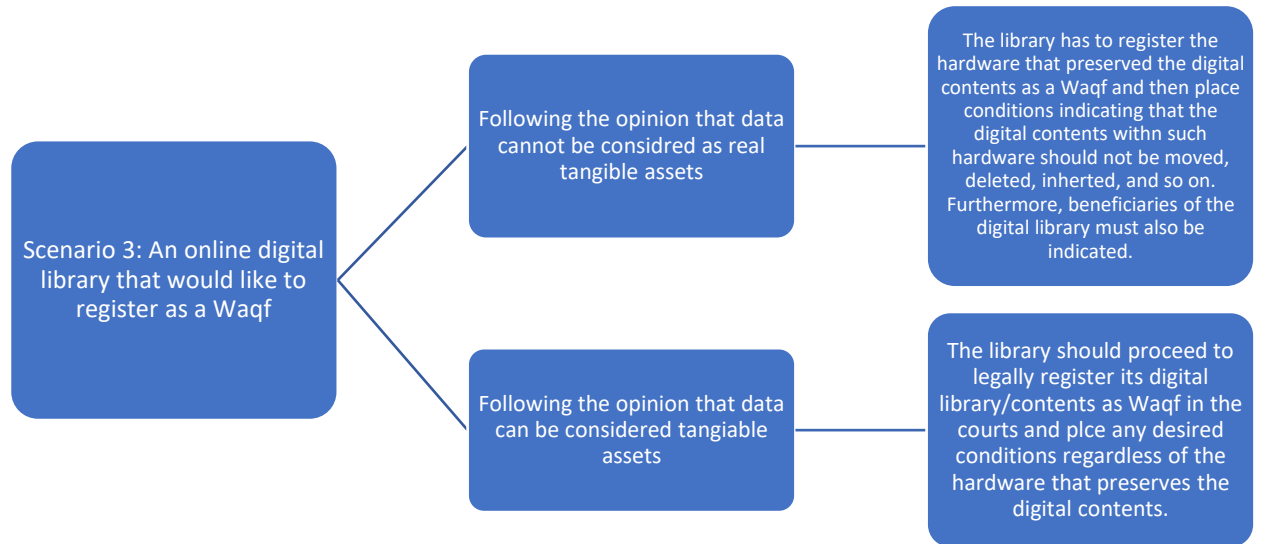
The library should proceed to legally register its digital library/contents as Waqf in the courts and plce any desired conditions regardless of the hardware that preserves the digital contents.

Figure 19. Scenario 3: An online digital library that would like to register as a Waqf.

In Scenarios 3 and 1, if the first opinion is followed, this requires the registration of the hardware as a Waqf, and such hardware must be owned by the library and not rented. However, following this option will make it more difficult for digital libraries in the future to register as a Waqf, as libraries usually do not own the hardware that hosts their digital contents. Moreover, individuals nowadays use cloud services to store and preserve digital contents. In such a case, while we own the digital content, we do not own the servers that actually operate and maintain the cloud servers. Therefore, it is possible for a digital library to be registered as a Waqf, but the mechanism by which to achieve this goal may differ based on whether digital data can be considered as tangible assets.

The previous scenarios, and the different options for how a digital library can be registered as a Waqf, come from the Islamic perspective on digital Waqf libraries, therefore it is important for people to consider the impact of the different scenarios and options for the flexibility of a digital library. Specifically, whether those options help the librarians and caretakers of those digital Waqf libraries to apply the best recommended practices for maintaining and preserving a solid, functional digital library. There are different aspects to consider, including the impact

of those scenarios on access, management, digital preservation, and so on. However, one of the most significant aspects that may be challenging for caretakers is the preservation aspect of a digital library. When you register a physical property (for example, land or a farm) as a Waqf, that Waqf property could last forever; as previously discussed, there are extant examples of traditional Waqf libraries that have existed for hundreds of years. But when it comes to registering a digital library as a Waqf, and given the instruction that a Waqf must last forever, making a digital library into a Waqf become a tricky issue.

In the books of Waqf, some Islamic scholars prohibited food from being registered as a Waqf (KAPF, 2017) because when it to comes to food, it is impossible to maintain the original asset and extract its benefits forever. This is similar to Shaikh Dr Bahjat's view that data itself cannot be considered a real, tangible asset as they cannot last forever. If you ascribe to Bahjat's opinion, then the process for registering a digital library as a Waqf is as follows: first register the server that holds the digital library as a Waqf, and then set conditions stating that the digital content of the server shall not be deleted or moved. In the world of digital preservation there are certain standards that need to be maintained in order to keep digital content alive for as long as possible. Even when following all the recommended digital preservations standards, "in digital preservation, there is no 100% assurance that all objects will be protected and well-maintained" (Shimray and Ramaiah, 2018, p. 46).

This means that digital objects may still be lost, even if all digital preservation protocols are followed. This could lead to further Islamic studies on whether digital content can be registered as a Waqf, considering that there is a chance that the digital content might be lost. As Ismail and Affandy (2018) discuss, digital data is exposed to loss and destruction because it is stored on fragile magnetic items, which are affected by factors like heat and humidity.

However, the second Islamic interviewee, Dr Merah, disagrees with Bahjat, and believes that digital content can itself be a real, tangible asset and therefore be registered as a Waqf regardless of the hardware that maintains the digital library. And as explained under the Islamic fatwa section, this disagreement between Islamic scholars is normal and one opinion does not invalidate the other; people have the choice to follow either option. We flagged this issue for scholars to consider when conducting further studies about Waqf in the digital world.

One digital preservation strategy mentioned by Shimray and Ramaiah (2018) is the "[c]reation of digitized duplicates and metadata accessible online" (p. 47). This strategy aims to protect the digital library and its contents from any unforeseen loss. It is an important method for maintaining a digital library and allowing it to survive for as long as possible. However, it is important to look at how creating digitised duplicates might clash with or even breach the laws of Waqf. For example, if a digital library is registered as a Waqf for the people of Mecca, that means the digital Waqf library should be accessible only by the people of Mecca, and it should not be moved to other locations if it originated in Mecca. Therefore, creating a digitised duplicate version of the library could be a breach of Waqf laws and the conditions set by the donor, especially if the other version will be maintained by a private, specialised entity that is hired to ensure the safety of the content of the digital library. Such an entity has no right to use the digital Waqf library, as per the conditions set by the donor.

It is also important to consider whether making copies of digital Waqf libraries for the purpose of keeping an alternative version of the library in case of loss or damage to the original library is allowed. There is no straightforward answer to this issue, as it requires more in-depth Islamic studies. However, it can be recommended that when regulators in an Islamic country begin to draft regulations that address the registration of digital content as a Waqf, they look into possible issues with aspects of digital preservation, access, and management. They may choose to follow the Islamic opinions provided in this thesis, or others from future Islamic studies.

Another strategy for solving these issues is to advise potential donors of Waqfs about these issues before the donor places their conditions on the Waqf. As previously mentioned, the donor of a Waqf can impose any conditions they choose upon the donated Waqf, and those conditions must be respected and honoured and cannot be changed after the Waqf is registered. To avoid issues of copying digital content that might be a breach of the Waqf, the donor could be advised to include permission for the duplication of the donated digital content for the purposes of maintaining the original Waqf library content. This would include any related, mandatory maintenance tasks that may result in copying or moving the digital library and its contents to other locations if required to prevent any loss or damage. Including such conditions will make it easier to operate a digital Waqf library while maintaining digital preservation standards.

Interestingly, what was discussed above of how following the best digital preservation strategies when it comes to digital Waqf libraries might somehow breach some of the Waqf laws and conditions, in the world of digital preservation of some studies, was concern of how sometimes following best digital preservation strategies may infringe on copyright. Ismail and Affandy (2018) provided instructions to minimise the risk of loss or damage to digital content and flagged the issue of copyright:

> Storing in a stable, controlled environment, implementing regular refreshment cycles to copy onto newer media, making preservation copies (assuming licensing/copyright permission), implementing appropriate handling procedures and transferring to "standard" storage media. (p. 6).

The authors mention that, while trying to implement the best digital preservation practices, people have to be careful regarding copyright issues as some digital preservation procedures might infringe copyright. They further state that,

> Simply copying (refreshing) digital materials onto another medium, encapsulating content and software for emulation, or migrating content to new hardware and software, all involve activities which can infringe IPR unless statutory exemptions exist or specific permissions have been obtained from rights holders. (Ismail & Affandy, 2018, p.7).

What is interesting about the above quote is that the authors mentioned that when applying digital preservation strategies, permission from the copyright holders should be sought so digital preservation strategies do not breach copyright agreements. Here, an important issue needs to be reiterated: When it comes to Waqf, once we register a digital library as a Waqf, we no longer can go back to the donor to obtain permission regarding any digital preservation move that we think might breach Waqf laws and conditions. Unlike in the case of non-Waqf items where you could go back any time to the original owner for permission to apply digital preservation practices so copyright agreements are not breached.

This is why it is suggested that the donor of a digital Waqf library should be advised of all the necessary conditions that may need to be applied on his/her donated digital Waqf library for digital preservation purposes. That way the donor can include necessary permissions along with any other conditions associated with the donated Waqf library before the final registration of the digital library as a Waqf.

Another factor to keep in mind is cost. Maintaining a high standard of digital preservation would require a dedicated budget. Challenges arise if the donor of the Waqf did not state how and by who those necessary costs will be paid.

Moreover, what if the Waqf hardware that contained the digital Waqf library was ruined and damaged, for example by fire, are we allowed to exchange it? The issues of Waqf maintenance and the exchanging of Waqf are mentioned in the books of Waqf (AAOIFI, 2017; KAPF, 2017; etc.) in general terms, and these terms shall apply to any kind of Waqf.

When it comes to the maintenance cost of a Waqf, and specifically a digital Waqf library, the cost of Waqf maintenance should be deducted from any revenue generated by the Waqf itself. Therefore, if a digital Waqf library generates revenue, then it is compulsory to deduct some money from that revenue for maintenance costs even if the donor did not state that in his/her conditions. As the AAOIFI (2017) explains:

> Spending on maintenance, reparation and renovation of the Waqf assets should precede distribution of the Waqf income among beneficiaries. In this connection, due consideration shall be given to the technical schedules of periodical maintenance […]. Maintenance and reparation of Waqf assets also do not require a prior condition to be stipulated by the Waqif …. Maintenance and renovation requirements (maintenance reserve) shall be retained from the Waqf income every year even if the Waqif has not stipulated such a condition. (p. 825–826).

The above statement applies to any kind of Waqf, physical or digital. In the case of any major damage to the digital library that requires replacing the original Waqf hardware/software for the digital Waqf library to survive (even if that means we have to sell the Waqf and buy a new replacement), the books of Waqf have a section about *Istibdal* (the exchange or replacement of a Waqf). As AAOIFI (2017) explains:

> *Istibdal* refers to the process of selling the Waqf asset and purchasing a new one instead, so as to maximize the interest of the Waqf. *Istibdal* can take place according to a condition stipulated by the Waqif, or when the Waqf becomes ruined (even if prevented by the Waqif). *Istibdal*, in such cases, takes place by selling the Waqf property and purchasing a new one instead, so as to maintain the Waqf as it was before. (p. 826).

Despite other kinds of disputes or issues that might face a digital Waqf library, if there is a dispute about paying maintenance fees for replacement parts, all such costs would have to be authorised by a special court, not by individuals.

While this thesis cannot address all the possible ramifications of a digital Waqf library that might occur when following the Islamic opinions and scenarios, it was important to briefly mention the possible effects of those scenarios on the aspect of digital preservation as an example. However, future studies could aim to further investigate the possible impacts.

Regulatory context issue

Regulations commonly known around the world when it comes to digital libraries and intellectual property protection are: copyright policies, Creative Commons policies (CC), the institution's own policy, and open access. Therefore, as mentioned earlier, during the visit to the different Waqf libraries in Mecca and Medina, the researcher found that some libraries do claim to respect the copyright laws of the country along with the Waqf laws.

In the literature review we explained and discussed copyrights laws globally and within Saudi Arabia , however, did not mention the CC protection as it is not an official policy in Saudi Arabia. However, due to its importance when we talk about the difference types of intellectual policy related to Waqf, and as we try in this section to explore how a Waqf library can exist digitally, CC is important to consider together with copyright policy because CC is widely used and internationally recognised.

The policy of Creative Commons (CC) was established in 2001 in the United States and aimed to provide a suitable alternative option to copyright laws (Scharf, 2017). The CC organisation provides licences that advocate free use of work, especially creative work (Scharf, 2017). Some look at the policy of CC as a positive alternative to copyright infringements, as the creator of this policy focused on the importance and benefits from the ability of the public to interact and engage with resources, as opposed to the restrictive nature of copyright laws (Scharf, 2017). Others believe CC policy permits people to freely use work under specific situations and that it is a way to "strengthen the public domain" (Suthersanen, 2007, p. 59).

Therefore, the main goal of a CC licence is to "authorise the use of copyright works for purposes that may otherwise constitute infringement under traditional rules" (Scharf, 2017, p. 378). CC is designed to secure authors' rights in the digital environment (Scharf, 2017). CC and copyright work together because copyright provides the base protection that can be used to operate the different types of CC licences (Scharf, 2017). That said, infringement of CC laws will ultimately lead to the original copyright laws of a resource. As Scharf (2017) explains:

> Copyright protection and the CC-licensing mechanism co-exist inasmuch that the sound recording receives automatic copyright protection upon fixation and the subsequent adoption of a CC over it governing use/reuse … although CC licences are deemed to be legally enforceable, as a matter of practicality, the unauthorized use of the CC licensed work could be treated as a copyright infringement of copyright. (p. 380).

There are six different types of CC licences, as shown in Figure 20.

Attribution
CC BY

Attribution-ShareAlike
CC BY-SA

Attribution-NonCommercial
CC BY-NC

Attribution-NoDerivatives
CC BY-ND

Attribution-NonCommerical-ShareAlike
CC BY-NC-SA

Attribution-NonCommercial-NoDerivatives
CC BY-NC-ND

Figure 20. The different types of the Creative Commons licence. Source:
(https://opensource.com/article/19/5/creative-commons-certificiation)

Creative Commons USA (n.d.) explains that there is no need to register a CC licence to apply
for a CC licence. The licence must simply be applied in your document. Moreover, Creative
Commons USA (n.d) says that a CC licence it is not revocable. The Creative Commons USA
website provides a tool to help authors generate a CC code for digital resources to indicate that
they are protected by CC.[15] The website suggests that authors display the logo of the type of
licence that they choose (one of the logos that appears in Figure 20). The site also suggests
that authors write a statement that clearly indicates that a work is protected by CC and that the
CC licence expires when the original copyright of the resource expires.

There is a similarity between the CC policy and the Waqf laws. The CC is not revokable nor is
any Waqf-protected resource. Once the content is registered as a Waqf, you are no longer the
owner of it as we explained in the literature review. However, CC will expire once the

---

[15] Frequently Asked Questions | Creative Commons USA

copyright law of the same resource expires, which will depend on each country's copyright policy protection, which could be 50 or 70 years.

This presents a dilemma that needs to be resolved before we begin to establish a digital Waqf library. This dilemma applies to both the printed physical Waqf library and the digital one. Almost every published work will have an indication of the kind of protection it has, as the copyright protection with the known symbol of © or the different types of symbols that indicate that a book is protected under the Creative Commons licence (CC) using one of the six known licence types of Creative Commons.

If any printed or digital content contains any of those symbols, it will be understood what they mean because they can easily refer to copyright acts of the country or refer to the Creative Commons website for specific information. The policies are straightforward, easy to interpret, stable, and respected by the public. Open access policies also have a dedicated symbol, shown below.

When it comes to Waqf protection, there is no internationally recognised symbol or statement, nor a dedicated website that people can refer to, to understand what intellectual Waqf protection means. Table 1 provides a clearer comparison between the known intellectual protection polices vs Waqf.

Table 11

Comparison Between the Known Intellectual Protection Polices vs Waqf.

Name of the Policy	Symbol recognised internationally	Dedicated websites or an Act to explain the policy regarding intellectual protection	Duration of protection
Copyright	©	-Each country has a different dedicated website and Act : Example : USA: https://www.copyright.gov/title17/ Saudi Arabia: https://www.saip.gov.sa/wp-content/uploads/2019/10/Copyright-Law.pdf	Depends on the country's policy
Creative Commons	**(CC)**	https://creativecommons.org/ https://creativecommonsusa.org/	When the underlying copyright policy expires
Open Access		Different websites exist to explain the policy. examples : https://www.openaccess.nl/en/what-is-open-access https://en.unesco.org/open-access/what-open-access https://doaj.org/	
Waqf	N/A	N/A	Forever

In the past, books and manuscripts in the Western world had different stamps to indicate the kind of protection associated with a book or manuscript. Figure 21 shows an example of a stamp used in books to show that a book is under copyright (the blue stamp, first stamp from the left in Figure 21). For hundreds of years, books and manuscripts that were under Waqf protection had special stamps and/or statements.

Blue ink was used for Old Royal Library books and for copyright (legal) deposit items.

Yellow ink (sometimes orange/yellow) was used for donations until about 1944.

Green ink has been used since about 1944 on donated items. This small BL stamp with green ink has also been used on early acquisitions which lacked any stamps in order to denote BL ownership.

Black ink was used for Sloane books, for purchased items 1791-8 and 1804-13, and for some special collections such as Cracherode and Musgrave.

Brown ink was used for donations from 1756 to 1769, and occasionally for later donations and for items of unknown provenance.

Red ink was normally used for purchased material. It was also used for the Edwards collection.

Plate VI. (See P. R. Harris, 'Identification of Printed Books Acquired by the British Museum, 1753-1836', p. 422.)

Figure 21. An example of a physical stamp used inside physical books that indicates the copyright status of the books (first stamp from the left indicates the copyright status of the book). Source: Giles Mandelbrote and Barry Taylor (eds), Libraries within the Library. The Origins of the British Library's Printed Collections. London, The British Library, 2009. ISBN978-0-7123-5035–8.

Moreover, Figure 22 shows examples of different old Waqf stamps that used to be placed within books and manuscripts to indicate Waqf protection.

Figure 22. A sample of old Waqf stamps used in books and manuscripts to indicate that the documents are under Waqf protection. Photograph taken by the researcher in the library of the holy Mosque of Makkah.

Figure 23 shows a photograph of an old book shows an oval stamp that indicates that the book is Waqf-protected. Some other old Waqf manuscripts also had handwritten statements to show that the document was under Waqf protection and also state the conditions of the Waqf and the beneficiaries.
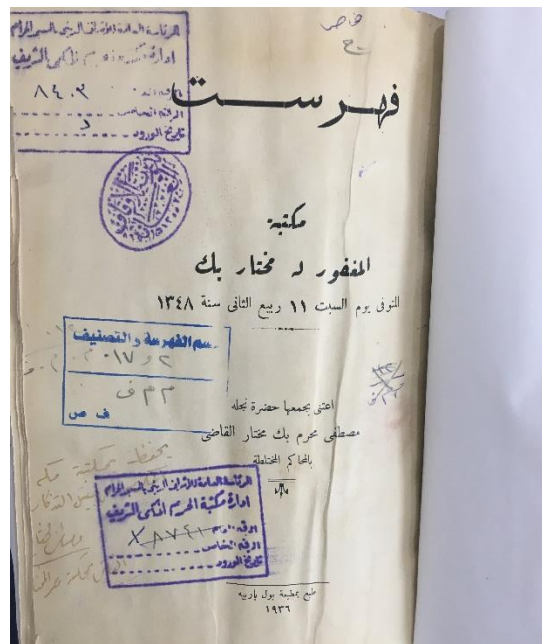

Figure 23. A photograph of an old book with an oval stamp that indicates the book is under Waqf protection. Photograph taken by the researcher at the library of the holy mosque in Mecca.

Figure 24 shows a manuscript dated 1164 AD, which is a digitised manuscript of a Quran on the digital Penn Museum website. The first word in the Arabic handwriting is the word "Waqf" in Arabic,وقف, which clearly says that this document is Waqf-protected, and then the writing proceeds to state the conditions associated with the Waqf protection. According to Brey (2016), the manuscript in Figure 24, which is now owned by the Penn museum:

> Was donated as a religious endowment (Waqf) to the al-Azhar mosque in Cairo by Amir Ahmed Jawish, who died in 1786. The manuscript, now disbound, was purchased by the museum in 1919 from Dmitri Andalaft, an antiquities dealer in Cairo. (p. 151).

Even though the manuscript is a Waqf, it was somehow sold at that time, and as explained in the literature review, a Waqf should not be sold, given away, or inherited. However, this incident, and the next one that will be examined from the British Library, were once very common due to the lack of knowledge about Waqf protection from both the sellers and buyers, as well as the lack of Waqf enforcement or recognition.

Figure 24. Arabic manuscript dated 1164 AD, and it is a digitised manuscript of a Quran that exists on digital Penn Museum's website – the Arabic handwriting in the top of the manuscript, the first word in the handwriting is the word "Waqf" in Arabic "وقف", reading the handwriting on the document it clearly says that this document is Waqf-protected and proceeds to state the conditions associated with the Waqf protection. Source: Penn Museum NEP27. University of Pennsylvania Museum of Archaeology and Anthropology : https://openn.library.upenn.edu/Data/0016/html/NEP27.html.

Figure 25. A digitised manuscript from the British Library collection, number 848, Volume 9, of a Qur'ān, originally in 30 volumes, commissioned by the Mamluk Sultan Faraj ibn Barqūq (reg. 1399-1412 AD), containing Sūrah 7:86-Sūrah 8:41, where in the middle of the left page there is the Arabic word وقف which means Waqf, indicating that this manuscript is intended to be protected as a Waqf forever. Source : (http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Or_848)

The researcher went through the digitised Quran manuscript collection of the British Library and found a digitised manuscript (Figure 25) that also had Arabic writing to indicate that the manuscript was Waqf-protected. The Arabic writing used the Arabic word Waqf (وقف), just like the example that was provided from the Penn Museum. In Figure 25, it can be seen, in the middle of the page, the word وقف in Arabic, which means Waqf, with extending the last Arabic letter. According to the British Library's website, the manuscript is owned by the British Library, and it was purchased from R. Lieder in 1869.

Neither the Penn Museum or British Library apply and enforce Waqf laws when it comes to the Waqf collections that they currently hold, they rather apply copyright and CC polices on them, which is understandable, as Waqf laws do not apply in the UK and the US. It is believed that at the time when those two organisations bought those Waqf items, neither the sellers nor the buyers had knowledge of those items being Waqf and what Waqf means, which is very

common even today. Moreover, Waqf laws are not enforced in the UK in comparison to Saudi Arabia. That is why during the researcher visit to mecca and Medina he noticed the extreme care from the Government of any Waqf item regardless of its age, and an example of that is the establishing of King Abdulaziz for Waqf libraries complex in Medina, which make sure that Waqf libraries and items in Medina will remain protected under Waqf laws, especially Waqf libraries and items that were neglected.

This again shows the importance and urgency of a global recognition of Waqf protection of intellectual properties, which will make people more aware of Waqf-protected items and give them knowledge of how to deal with such, and prevent future unlawful methods of acquiring Waqf-protected items, such as buying them.

With the emergence of digital libraries and digital documents, the known intellectual protection policies such as copyright and CC were able to form a virtual presence and exist within the digital document and digital websites to indicate that a document is protected under a certain policy. This is where Waqf protection falls behind and has yet to make that transition. Figure 26 shows an example of a digital document in which the end of the page contains a copyright symbol Ⓒ to indicate that the document is under copyright protection and Figure 27 shows an example of a digital document in which there is a paragraph at the end that explains the kind of protection this document has along with the Ⓒ symbol. The lack of virtual presence of a dedicated symbol, statement, or website to represent intellectual Waqf protection creates a barrier to recognising and acknowledging intellectual Waqf protection and what it means. This recognition is needed to establish the concept of a digital library.

Figure 26. An example of a digital document with the copyright symbol © placed at the bottom of the page to indicate that the document is under copyright protection.
Source: Crane, G., & Wulfman, C. (2003, May). Towards a cultural heritage digital library. In 2003 Joint Conference on Digital Libraries, 2003. Proceedings. (pp. 75-86). IEEE.

Figure 27. An example of a digital document with a paragraph at the bottom of the first page explaining the kind of protection the document has in detail along with the © symbol. Source: Agosti, M., & Ferro, N. (2007). A formal model of annotations of digital content. ACM Transactions on Information Systems (TOIS), 26(1), 3-es.:.

The lack of a dedicated symbol and trusted websites that explain what it means for a document to be protected by Waqf is an important obstacle in establishing Waqf digital libraries and content. The creation of a symbol and dedicated website that is recognised internationally will help people around the world acknowledge and recognise Waqf protection of intellectual properties. Such protection is unfortunately lost nowadays due to the lack of knowledge and recognition of digital Waqf protection worldwide.

Waqf protection of physical properties is enforced mostly in Islamic countries as shown in the example in this thesis of the enforced protection of the physical Waqf libraries and Waqf content in Saudi Arabia. However, back to the example in Figure 24, which is a manuscript dated 1164 AD as a digitised manuscript of a Quran that exists on the digital Penn Museum website. The document clearly states that it is Waqf protected, and the conditions associated with the Waqf protection. On the page where this manuscript exists, Penn Museum states that the image (Figure 24) is under copyright and CC protection (Figure 28).[16]

This is clearly an original Waqf-protected document per the instructions that have been stated by the author and Waqf protection lasts forever. However, due to the global lack of knowledge and recognition of Waqf protection of intellectual properties, this document was placed under copyright and CC protection and could end up in the public domain even though that is against the laws of Waqf as stated in the general conditions in the document.

Many other Islamic manuscripts that exist around the world may indicate their Waqf protection and the beneficiaries, which should be respected. However, due to the lack of acknowledge and recognition of digital Waqf protection, these manuscripts may be placed under different policies or placed in the open domain, breaching the original Waqf condition.

---

[16] https://openn.library.upenn.edu/Data/0016/html/NEP27.html
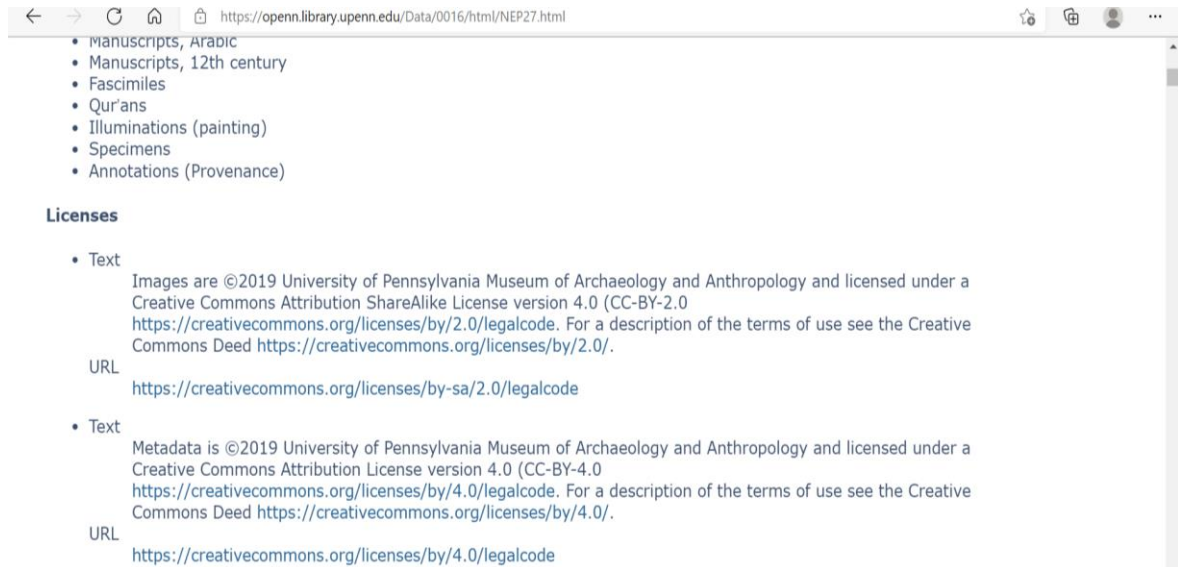
Figure 28. The same page where Figure 24 exists, the page shows that the image in Figure 25 is protected under copyright and CC, even though at the top of the document clear Arabic writing states that the document is Waqf-protected. Source: https://openn.library.upenn.edu/Data/0016/html/NEP27.html

It is important that a Waqf protection symbol and websites be established before starting to create digital Waqf content and libraries, so that Waqf protection can be globally recognized. Just as we see how the law of trust which is similar to Waqf (as we explained it in the literature review) is well recognised in western nations. It is also important to establish how digital content, or a digital library, can be registered as a Waqf from a religious point of view.

There is an important point to clarify regarding the two different opinions of the interviewed Islamic scholars related to physical Waqf collections that have been digitised, as in the case of physical Waqf libraries in Mecca and Medina. Those are examples of printed Waqf collections that have been digitised. When is a digitised Waqf collection from a physical Waqf document a Waqf? The two Islamic scholars disagreed. Sheikh Dr Bahjat believes that a digital version of a physical Waqf document is not a Waqf by default and there are certain steps that need to be followed to register this digital version as a Waqf as mentioned earlier.

Dr Merah believes that a digital version of physical Waqf document is a Waqf by default and all the conditions associated with the physical Waqf document should apply to the digital version. Dr Merah's opinion follows the famous Islamic rule that a branch should always follow its origin (الفرع يتبع الاصل) (Alzohili, 2006). Therefore, if following the opinion of Sheikh Dr Bahjat, any digital institution that holds a digital version of a physical Waqf document does not have to adhere to the Waqf laws for the digital version. However, following the opinion of Dr Merah, institutions that hold a digital version of a clearly physical Waqf document have to apply all the Waqf laws and all the conditions associated with the physical Waqf document to the digital version. This might be difficult to accomplish in non-Muslim countries that do not acknowledge nor enforce the laws of Waqf.

Therefore, when creating a digital Waqf library, it is very important to explicitly state that the library and the content are Waqf-protected and explain the conditions associated with the digital Waqf library as imposed by the donor at the time of the donation. It is also suggested that it is very important to have a recognised symbol for Waqf protection of intellectual properties and dedicated websites that explain Waqf protection of intellectual property such as those for copyright and Creative Commons policies. Following is a suggested Waqf protection symbol using the first letter of Waqf:

W

Both the English and Arabic digital resources can use the phrase Waqf Protected, or in Arabic وقف لله تعالى : in the digital document to indicate that the document is Waqf-protected, and preferably list the Waqf conditions in the same document or refer readers to where they can find the specific or general Waqf condition or resources. The Arabic phrase وقف لله تعالى, which means Waqf for God, is written in every copy of the physical Quran that was printed from the King Fahd Complex for the Printing of the Holy Qur'an in Medina (see Figure 29). Therefore, the phrase can be adopted in the Arabic digital Waqf content to indicate that the content is Waqf-protected.
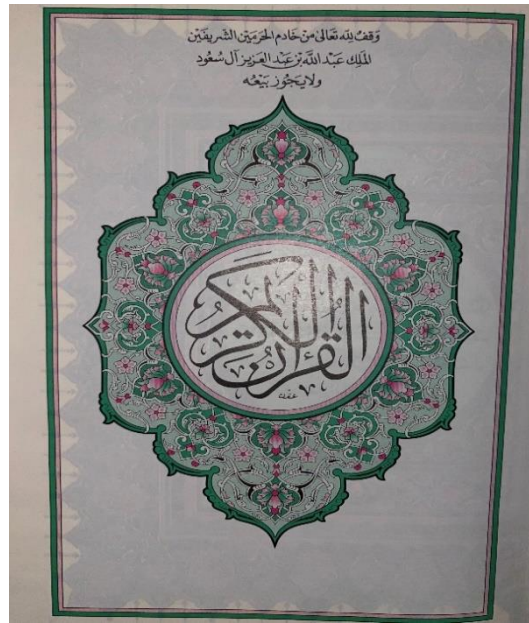
Figure 29. A page in a printed Quran, a copy issued by King Fahd Complex for the printing of the Holy Qur'an, on which an Arabic phrase at the top states "وقف لله تعالى", which means "Waqf for God", to indicate that this printed Quran is a Waqf. The Arabic phrase then proceeds to say "from the Custodian of the Two Holy Mosques King Abdullah bin Abdul-Aziz Al Saud, Not to be sold". Photograph taken by the researcher.

It is interesting to look into a collection that is protected under copyright laws alongside the Waqf laws. For example, the two visited Mosque Waqf libraries in Mecca and Medina, sometimes receive copyrighted materials from the general public, and the general public aim to donate those copyrighted materials as a Waqf to those libraries. This will make those items somehow fall under the copyright and Waqf laws. The Saudi Arabian Copyright Act protects authors' works during their lifetime and 50 years after their death; other countries may have different terms. If digital or physical Waqf libraries have some copyrighted materials within their collections, when the copyright protection of certain materials ends 50 years after the death of the author, normally, this means that those materials will be in the public domain and have no more protection. In comparison, under Waqf laws, once copyright protection ends, the protection of the Waqf continues to be valid forever. Therefore, for a copyrighted collection owned by a Waqf library, which is protected under both the copyright laws and the Waqf laws, the Waqf protection continues even though the copyright protection ends. In such a scenario, the kind of protection will be based on the conditions associated with the Waqf, and any previous guidance related to the copyright law will be dropped. In comparison, the Waqf

library previously had to honour both the copyright law and Waqf conditions when the former had not yet expired.

For example, if someone donated a copyrighted collection to a Waqf library, and along with the copyright protection the donor placed a Waqf condition that this collection can be copied and accessed by a certain group of people, then 50 years after the death of that author the collection should be in public domain and can be freely used by anyone (based on copyright laws). However, this cannot happen, because the conditions associated with the Waqf collection, which indicate who can copy and access this collection, have to be honoured and applied forever. This scenario is shown in Figure 30.
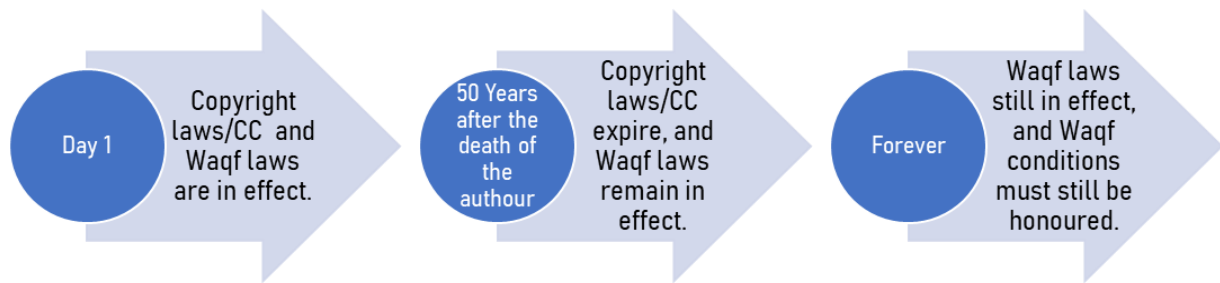
Figure 30. The timeline explains the length of protection of a collection that happens to be protected under both copyright and Waqf laws.

Chapter 6: Conclusion

This thesis makes an important contribution to the field in that it has explored and investigated the concept of digital Waqf libraries, beginning by investigating traditional Waqf libraries that have existed for more than a thousand years in many territories worldwide. Some ancient Waqf libraries still exist, and new ones continue to be established; nonetheless, these libraries have attracted little research attention. In particular, little is understood about the possible existence of digital Waqf libraries.

New trends are usually brought to the attention of Islamic scholars to see whether there are any obstacles to their registration as a Waqf. For example, Alahmed (2018) investigated whether the stocks of joint-stock companies could be registered as a Waqf. However, as mentioned in the Literature Review chapter, Islamic studies on the existence of Waqf in the digital age are lacking. Therefore, this thesis investigated whether a digital Waqf library could be registered as a Waqf at all.

Summary

This thesis investigated the concept of the digital Waqf library in general and tried to understand, identify and address the possible implications of applying digital practices in the context of Waqf libraries. Ultimately, this work attempted to discern how we could register a digital library as a Waqf—whether this was a digitised version of a registered physical Waqf library or a born-digital library. To address this issue and answer the research questions, the researcher had to locate and visit real Waqf libraries in Mecca and Medina to better understand whether and how such libraries use digital practices, then identify any issues that might arise from them. Moreover, as digital Waqf libraries are still subject to religious rules, the researcher had to seek insights from Islamic scholars to better understand how a digital library could be registered as a Waqf and how to address the conflicts and issues identified during field visits.

The field visits to Waqf libraries in Mecca and Medina and interviews with their caretakers revealed that the absence of suitable regulations has led to these libraries employing different

methods to address issues arising from their digital practices. One major issue was access; it is not yet clear whether the digitised versions of these libraries' physical Waqf collections will be a Waqf by default. Owing to this confusion, some Waqf libraries have decided to block remote access to their digitised collections, fearing that they would be a Waqf by default. Thus, only the specified beneficiaries of the Waqf would be allowed access to it.

Since Waqf laws existed well before copyright laws did, the visited Waqf libraries were confused about how to deal with donations that were protected under copyright laws. Accepting such donations as a Waqf would mean that they are protected under both copyright and Waqf laws, which would result in various conflicts, as explained in the Findings chapter. Saudi Arabia has both a Copyright Act and a Waqf Act; however, there is no guidance on how to deal with content that is protected under both legislations.

The thesis found there are implications when applying digital practices within the context of a Waqf library (as mentioned and discussed in chapters 5 and 6), such as the question of how to treat a digitised collection of an original physical Waqf library and whether the digitised collection should be Waqf by default. Moreover, the thesis found that there is not yet a specific regulation that organises and advises on how to deal with Waqf in the virtual world, especially Waqf libraries. The current Waqf laws and regulations in Saudi Arabia have yet to address and find a mechanism that allows digital proprieties to be registered as a Waqf and to issue advice on the conflicts and complications of applying both Waqf and copyright laws within Waqf libraries.

Another finding of the thesis was that whether data are viewed as a real tangible asset (from the Islamic perspective) represents a main factor when addressing the complications that arise from digitising a Waqf collection or trying to register a digitised or born-digital library as a Waqf. Therefore, this thesis suggested different mechanisms by which digital libraries can be registered as Waqf. Such mechanisms and scenarios as presented in Figures 17, 18 and 19 depend on whether digital content/data is treated as a real, tangible asset.

Contribution to knowledge

The thesis significantly contributes to the available pool of knowledge by exploring the concept of a digital Waqf library and presenting different methods by which digital Waqf libraries can come into existence. It identified, addressed and drew attention to important issues and obstacles that could affect the creation of a digital Waqf library, such as the absence of Waqf-specific regulations that dictate how a Waqf's protection of libraries' intellectual property should be applied. Beginning from the literature review, after defining the concept of Waqf, how it is managed, the importance of the enforcement of Waqf laws for it to succeed and requirements to establish a Waqf, the thesis then explained the similarities and differences between the law of Waqf and the law of trust and Waqf donation versus normal non-Waqf donation. Reading through the law of Waqf, some may notice a similarity between the law of Waqf versus trust and normal donations; therefore, the Literature review chapter explained the differenced between those two laws.

The thesis also investigated Waqf libraries and their important contribution to Islamic civilisation, providing a definition of digital Waqf libraries. It also investigated the different types of Waqf libraries and presented a rationale and explained the mechanism of how those types of libraries come into existence. In the visit to Mecca and Medina, the researcher identified four types of existing Waqf libraries (public, mosque, family, and academic), one of which was newly identified by the researcher and has never been discussed before (the academic Waqf library). Moreover, the thesis explained the differences between Waqf libraries and normal types of libraries, such as normal public libraries versus Waqf public libraries.

The thesis also investigated digital libraries, provided a definition of digital libraries and listed a set of core elements that is needed to identify a library as a digital library. The thesis also identified the two types of digital libraries that exist today—hybrid and born-digital libraries. Nevertheless, it identified an ongoing lack of understanding of how Waqf in general can exist in the digital world. Ultimately, it illustrated that more research and attention from researchers, Islamic scholars and related government bodies are needed to regulate this matter.

The thesis' major contribution and aim was to try to understand whether a digital Waqf library can exist. Hence, this thesis found that a digital library could be registered as a Waqf.

However, two Islamic scholars differed in their conceptions of the means of doing so based on whether data should be considered a real, tangible asset. These differing views resulted in different scenarios in which a digital library could be registered as a Waqf, as illustrated in Figures 17, 18 and 19 and presented in the discussion.

The described scenarios are not necessarily the only methods of registering a digital library as a Waqf. Since this thesis is in the initial exploratory stage of the concept of digital Waqf libraries, these scenarios were the only ones that were found to have emerged at present. Other Islamic scholars from the four Islamic schools may have similar or differing views on this issue, and it is hoped that this will encourage other studies on the possibility of digital Waqf libraries.This is especially true for the conflict between applying both Waqf and copyright laws within the same environment. Addressing this issue is important in Saudi Arabia, which enforces both Waqf and copyright laws; moreover, it is significant globally because the recognition of the protection of Waqf libraries' intellectual property is important to facilitate the emergence of functional digital Waqf libraries. The absence of formal rules regulating digital Waqf donations makes it difficult to speculate about the laws and guidelines that need to be followed to register a digital library as a Waqf. Furthermore, it leaves Waqf libraries no choice but to act per their best judgement when they face any issues with employing digital practices. It also poses challenges to people who want to donate to a digital library as a Waqf and formal authorities that have to register a digital library as a Waqf.

The visit to the Waqf libraries revealed that they are already starting to use digital technology for the preservation, enhancement and facilitation of their targeted user experience. However, they hesitate to create a remote digital presence for Waqf libraries. Rather, some provide digital access to their collections only internally. As explained above, this relates to the absence of clear regulations regarding Waqf libraries and how they should operate in the digital world because librarians worry about changes that would result in a breach of Waqf laws and conditions associated with their libraries. Another concern is the conflict between Waqf laws and copyright laws. The Findings chapter provided different scenarios and examples of such conflicts that need to be addressed by government entities, such as the General Authority for Awqāf and the Saudi Authority for Intellectual Property.

Key takeaways

In terms of key takeaways, one fundamental issue pertains to the presence of Waqf documents in Western institutions that do not recognise Waqf. This indicates the absence of global recognition, or a universal standard acknowledgement, of the Waqf protection of intellectual proprieties. In Waqf libraries in Saudi Arabia, most books are stamped with a statement indicating that they are protected by Waqf (see Figure 23). This is the same as the idea of copyright protection, which is denoted by the symbol ©. However, no such globally recognised symbol exists to indicate that a work is protected by Waqf regulations. Creating such a symbol represents an important step in facilitating the existence of digital Waqf libraries.

If Waqf protection of intellectual property were to be globally recognised, it would somewhat prevent the potential loss of Waqf intellectual property, including books and manuscripts and their digital versions. Global recognition would mean that if an item has clear indications that it is protected by Waqf (based on the wish of the author), individuals and institutions would be able to prevent others from acquiring the protected item in honour of the wish of the author. Individuals would also understand that a Waqf item cannot be sold or given away. As noted in the Discussion chapter, the Penn Museum and the British Library own some Waqf materials. These institutions acquired these items when Waqf protection of intellectual property was not globally recognised; otherwise, they would not have bought these items.

Most Islamic countries, including Saudi Arabia, have a Waqf Act. However, these are more general legislations, and a specific Waqf Act for Waqf protection of intellectual property is needed. Even non-Muslim countries that own Waqf materials could adopt such acts to honour authors' wishes to protect their work as Waqfs in a manner similar to copyright and CC.

Global recognition of Waqf is essential for establishing digital Waqf libraries. Establishing a dedicated Waqf Act for Waqf protection of intellectual properties in Saudi Arabia would enable courts and dedicated Waqf judges to easily manage cases regarding digital or physical Waqf libraries and solve any conflicts related to Waqf protection. Ultimately, this will encourage people to register more physical and digital libraries, such as Waqf.

Limitations

Regarding the limitations of this thesis, one point is that the researcher's background and training are in librarianship, not Islamic scholarship. Therefore, this thesis has focused mostly on questions of librarianship, with additional consultation coming directly from qualified Islamic scholars. To address this limitation, other studies could investigate digital Waqf libraries from a holistic Islamic approach and intensively investigate this concept. Another limitation of thesis relates to the issue of copyright versus Waqf laws because the focus was solely on Saudi copyright laws as a basis to identify and address conflicts. Others may desire to compare different copyright acts against the laws of Waqf regarding the mechanism by which intellectual property should be protected.

The outcomes of this thesis are intended to be used within the Saudi context in general. However, if others wish to use or adapt some of these outcomes, they should consider certain points. First, before applying the findings of this thesis to other Islamic countries, possible differences in the four Islamic Madhabs must be considered. Specifically, Islamic scholars from different Madhabs may have different opinions on scenarios in which a digital library can be registered as a Waqf and on how to address issues and conflicts that result from employing digital practices in Waqf libraries.

Second, to apply the findings to a non-Islamic country, one must consider how to legally register a digital library as a Waqf or how to adopt the above-mentioned outcomes if Waqf laws are not enforced in the country. As explained in the literature review, Muslims may consider the possibility of using the law of trust, which is applied in non-Islamic countries and is very similar to Waqf law.

Recommendations

This thesis is an initial step towards exploring a massive topic—the existence of Waqf in the digital world, with a focus on digital Waqf libraries. However, although this thesis has identified, presented and addressed some of the issues that may arise when trying to create a digital Waqf, reaching a complete understanding of the digital Waqf concept and digital Waqf

libraries should be a community effort.Therefore, the following recommendations can be made:

librarians/caretakers of Waqf libraries are encouraged to investigate and acknowledge any potential issues and conflicts when implementing digital practices in their Waqf libraries and bring them to the attention of Islamic scholars and dedicated Waqf agencies, such as the General Authority for Awqāf in Saudi Arabia. This will also help these agencies become aware of issues, and it will ultimately help guide their dealings with digital Waqf libraries. Waqf enforcement agencies, such as the General Authority for Awqāf in Saudi Arabia, are encouraged to work towards finding a legal and formal mechanism to register digital items and content, such as digital libraries, under Waqf law (which includes a way to prove ownership of the digital property).

 The issues and conflicts in Waqf libraries regarding the application of both Waqf and copyright protection to a physical/digital document (i.e. a single intellectual property) must be solved; this may also guide Waqf donors in setting suitable conditions for a digital Waqf. This could lead to the issuance of a guide for librarians/caretakers of Waqf libraries on how to deal with existing intellectual properties that fall under both Waqf and copyright protection. The General Authority for Awqāf must work with the Saudi Authority for Intellectual Property to produce guidance on addressing the conflicts between Waqf and copyright laws.

In the Saudi Arabia section of the Literature Review chapter, it was explained that in the academic literature, Waqf libraries have yet to be considered, treated and introduced as conventional libraries in a manner similar to public libraries, private libraries and so on. Therefore, it is recommended that Waqf libraries be treated and recognised as conventional libraries alongside other recognised types of libraries. More studies are needed to evaluate this recommendation; for example, studies could investigate and compare religious libraries.

Another recommendation is for global initiatives to acknowledge and recognise Waqf protection as equivalent to copyright protection, although this might not be easy outside Islamic countries. Nonetheless, non-Islamic countries that have many Waqf books, manuscripts and so on could adopt such protection.

Future studies

This thesis and its findings offer many research directions for researchers, Waqf librarians/caretakers and Waqf enforcement agencies. Researchers could further study the following topics: the past, present and future of Waqf libraries in countries worldwide; how Waqf in general can exist in the digital age; the overall concept of a digital Waqf library; Waqf protection for intellectual properties and how it differs from and conflicts with copyright, CC and open access; establishing new mechanisms to prove ownership of digital properties; and mechanisms for how to officially register a digital property, such as a digital library, as a Waqf. Moreover, studies could focus on the users/beneficiaries of Waqf libraries. Ultimately, the concept of a digital Waqf library is still in its initial stages, and it is hoped that this thesis will inspire other researchers and officials to focus more on this concept.

Appendix (A) Initial and Final Themes

A. Initial and final themes of the interviews with the librarians of the visited Waqf libraries.

Initial themes	Final themes
Waqf libraries' history	Types
Collection	Management /Caretakers
Waqf conditions	Background and content
The use of technology	Digital status
Policy conflicts	Digitising, virtual presence and reasons for digitising
How it is managed	Access
Providing Access	Waqf vs copyright

B. Initial and final themes of the interviews with the Islamic scholars

Initial themes	Final themes
Waqf in the virtual world	Digital Waqf
Registering a digital library as a Waqf	The creation/establishment of a digital Waqf library
The possible conflicts of applying and enforcing local known libraries' polices vs. Waqf laws	Access and copyright within a digital Waqf library

Appendix (B) Semi-structured interview questions used as a guide when interviewing librarians/caretakers of Waqf libraries in Mecca and Medina

Part 1: Questions about the Waqf library itself, including but not limited to:

-What is the formal name of this Waqf library?

-What kind of Waqf library is it?

-Who is the founder of this Waqf library/how was it founded?

-When was this Waqf library founded?

-What are the reasons behind the creation of this Waqf library (if any)?

-My understanding is that this is not your original location, is this correct?

-Who can access your Waqf library and are there any restrictions?

Part 2: Questions about the Waqf conditions associated with the Waqf library

-Does this Waqf library have any Waqf conditions imposed by the creator of the library?

-What are these Waqf conditions and how are they documented?

-Are all of the Waqf conditions still applied and respected? If not, why?

-Who is in charge of this Waqf library?

Part 3: Questions related to the collection and existence of a digital version of Waqf libraries, the current status and reasons for digitising, and access

-Can you describe in detail the collection that this Waqf library holds (books, manuscripts, artefacts, etc.)?

-Are you digitising your own collection? If not, why?

-When did you start digitising your collection?

-What are the reasons that encouraged you to digitise your own collection?

-Which items have the priority for digitising?

-What is the current status of the digitisation of your collection?

-What kind of technology do you use to digitise your collection?

-Do you have a digital version of your library? If so, is it available online or in house only?

-Are you digitising all types of items in your collection?

-How do you digitise your collection?

-What is the current and future digitisation plan?

-Who is funding the digitisation project?

-Where do you keep your data (in house or rented servers)?

-How can you retrieve the digitised collection (in house only, online, etc.)?

-Who will be able to access your digital collection and how? Are there any access restrictions?

-What is your policy for accessing your digital collection?

-How did you deal with the conditions of your Waqf library in the digital version? Are they also applied in the digital version?

Appendix (C) Semi-structured interview questions used as a guide by the researcher when interviewing Islamic Scholars

Note: Since these interview questions are aimed toward Islamic scholars, the researcher realises and understands that the Islamic scholars might not be thoroughly familiar with some of the terms used in the interview questions, such as: digital world, virtual, servers, hybrid and online library, digital surrogates, fair use, etc. Therefore, the researcher will make sure to properly explain the meaning of those terms and others to the Islamic scholars during the interview.

A – General questions:

1- Can you please confirm your name, current role and area of specialty?

2- Can you please tell me in general about the concept of Waqf, including its purpose, rules, and guidelines?

3- Can you tell me about the rules and guidelines in case the owner of a typical traditional library desires to register the library as a Waqf?

4- Can you tell me the rules and guidelines surrounding the managing of a Waqf library?

B – Questions about the possible existence of Waqf in general in the digital world

5- Are the current rules and guidelines of Waqf appropriate and suitable to be applied in the digital world and regulate how the concept of Waqf can exist in the digital world? Please could you explain the reason for your answer?

6- If the answer to the previous question is no, then do you believe that the current rules and guidelines of Waqf need to be reviewed and updated to be suitable to regulate the existence of Waqf in the digital world?

7- Are there any new regulations or/and Islamic studies, that organise, regulate, and explain how Waqf can exist in the digital world? In other words, how can

virtually existing content such as virtual schools, virtual websites, virtual education institutions, virtual libraries, etc.. exist and registered as a Waqf? If the answer is no, then can you give me an answer based on your own experience and knowledge as an Islamic scholar?

8- If a Waqf property in general (such as schools, libraries, educational institutions. Etc) decided to digitise its content, would the digital surrogates considered part of the original Waqf and therefore to be regulated appropriately?

C – Specialised questions related to the possible existence of digital libraries as a Waqf (a digital Waqf library)

9- If a recognised, approved physical Waqf library created a digital library as an extension of their original library (hybrid digital library), can that digital library by default be recognised as a digital Waqf library? Or would it also need to be registered in court to be recognised as a digital Waqf library? Would this digital library need to follow the same criteria associated with the original physical Waqf library, or would it have different conditions that would need to be honoured?

10- If a non-Waqf physical library created a digital library (whether through digitising their content or acquiring born-digital materials or booth) and would like to register only the digital library as Waqf, not the original physical library, is that possible? What are the rules and guidelines that would need to be followed to accomplish this?

11- In the case of an online digital library (a library that exists only online and does not have a physical location), is it possible for this type of digital library to be recognised as Waqf (minding the main rule of Waqf that it must be a physical asset in an appointed location)? If yes, what are the rules and guidelines of

Waqf that need to be followed to accomplish this? (note: consider two scenarios: if the owner of the online digital library owns the servers vs renting the servers).

12- In terms of ownership, as one of the rules of Waqf is that a Waqf has to be owned by the donor at the time of the donation, does the digital content that exists in a digital library has to be fully owned by the donor at the time of donation of the digital library as a Waqf? In other words, can a donor register a digital library as a Waqf if the content of the digital library is copyrighted or rented, and the donor does not have the full ownership and full rights to use those materials at the time of the donation?

13- Do Waqf libraries and digital Waqf libraries have to comply with fair use and copyright laws in the country? For example, does a Waqf library, or a digital Waqf library, need to mind and respect the copyright laws of copyrighted materials that may exist within the library's digital library collection? If a Waqf library is to respect copyrighted materials, should the Waqf library's conditions be applied after the copyright period has expired? And if allowing the use of the Waqf library/digital Waqf library content based on the fair use law in the country would mean a breach of one of the Waqf library's condition, is that still allowed?

14- In terms of Waqf conditions and copyright, it is known that all the conditions associated with a Waqf library must be honoured and monitored by the court (including who has the right to access the library and who its beneficiaries are); however, if there are copyrighted materials within the library collection or if a person would like to donate a copyrighted book to the Waqf library or digital Waqf library, would the conditions associated with the Waqf library supersede the copyright laws? For example, if a copyrighted book was donated to a public Waqf library, and one of the Waqf conditions associated with this Waqf library states that people are allowed to borrow and copy its materials as many times as they want with no restrictions of any kind, would, in this case, the condition of the Waqf undermine the copyright law, as honouring the Waqf conditions is

monitored by the court? Moreover, Could said library provide its patrons with a PDF of said copyrighted book? Would that patron need to be physically present at the library to receive that PDF or could they receive it by visiting a website?

15- In the case of a Waqf library that aims to serve a specific group only, would provide digital surrogates without compromising the original collection be a breach of the Waqf conditions? Could you please explain in detail the reasons and justification why that could or could not be a breach of the Waqf conditions?

16- Could providing the general public with remote access to the digital collection of a Waqf library be a breach of Waqf conditions if the Waqf library aims to serve a targeted groups/users? Could you please explain in detail the reasons and justification why that could or could not be a breach of the Waqf conditions?

17- What is the status of the software and hardware that is essential to the functioning of a digital library, in terms of them being registered as a Waqf alongside the digital content of the digital library?

18- Some Waqf libraries in Mecca and Medina (ones that the researcher visited) have only indexes, catalogues, and metadata as digital content but not a digital collection of books, can that digital content still be registered and recognised as a Waqf?

19- Can a digital library be donated and registered as a Waqf if it is donated by groups, organisations, government, or educational entities, or does it have to be donated by individuals?

20- Aside from being in an appointed physical location, do the rest of the rules and guidelines of Waqf (mentioned in the Literature Review chapter) have to be followed in the process of recognising a digital Waqf library?

21- When can the conditions associated with a digital Waqf library be changed, and by who?

22- In terms of any dispute or potential problems that may encounter the digital Waqf library and/or may affect the continuous existing of the library, who has the right to make a decision regarding this matter?

23- Could you sum up the mandatory rules of Waqf (in your opinion), and the legal steps that need to be followed for a hybrid and online digital library to be recognised as a Waqf?

Appendix (D) Interviews consent form – English/Arabic

1- For the Waqf libraries caretakers

CONSENT TO THE USE OF DATA(1)

University of Glasgow, College of Arts Research Ethics Committee

Research project title: Digital Waqf libraries in the two holy cities of Mecca and Medina and their user services

Researcher: Ahmed Alshanqiti

Dear participant,

Thank you for considering participating in this interview. My name is Ahmed Alshanqiti and I am currently a PhD student at University of Glasgow, and a faculty member at the Institute of Public Administration in Saudi Arabia which is my sponsor.

This interview is a part of my PhD thesis conducted at the University of Glasgow. The thesis aims to introduce the concept of the digital Waqf library and to investigate the existence and current status of digital Waqf libraries in the two holy cities of Mecca and Medina. The interview questions will cover different areas related to this topic, including questions about the history and existence of your Waqf library, the Waqf conditions associated with your Waqf library, whether your Waqf library is digitizing its own collection, and whether you have a digital version of your library. Moreover, it will cover the reasons that encouraged your Waqf library to go digital, as well as how you are applying the condition of your Waqf library to the digital version and the impact of digitizing your Waqf library in terms of access and how you evaluate this impact.

Please know that your participation is highly appreciated, and it will help to add significant knowledge to the field of library and information studies. This interview will take about one and a half hour, and you have the right to stop the interview or withdraw from the research at any time.

Ethical procedures for academic research undertaken from UK academic universities and institutions require that interviewees clearly agree to being interviewed and how the information produced from the interview will be used. This consent form is vital for us to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. Therefore, please read the information below and then sign this form to indicate that you understand and approve the **following:**

- The Researcher is collecting data from this interview for use in an academic research project (explained above) at the University of Glasgow, as well as potential future publication.
- All information collected from this interview will be stored on the University's secure network (One Drive) and will only be accessible to myself.
- All recordings will be destroyed once a transcript has been generated by the researcher and approved by myself.
- At the end of this project, the produced transcript will be retained in a secure laptop and password protected for five years.
- I agree for my interview to be recorded (select one):
  ☐ Yes   ☐ No
- I agree for a transcript of my interview to be generated and that I will have the right to review and edit my responses before publication:
  ☐ Yes   ☐ No
- I agree for the transcript to be published with this research:
  ☐ Yes   ☐ No
- I agree for my name and institutional affiliation to be revealed in any publications resulting from this research:
  ☐ Yes   ☐ No
- I agree to be quoted directly in any publications resulting from this research:
  ☐ Yes   ☐ No

Participant's name: _____

Participant's signature: _____

 Date: _____

Researcher's name and email contact: Ahmed
Alshanqiti ()

Supervisor's name and email contact:
Professor Lorna M. Hughes
Lorna.Hughes@glasgow.ac.uk

Department address:
Information Studies
11 University Gardens
University of Glasgow
Glasgow, G12 8QQ
Scotland

University
of Glasgow
VIA VERITAS VITA

نموذج موافقة على عمل مقابلة شخصية واستخدام البيانات المتعلقة بهذه المقابلة (1)

جامعة جلاسكو باسكتلندا

- **اسم المشروع (رسالة دكتوراة):** المكتبات الوقفية الرقمية في مكة والمدينة وخدماتها

- **الباحث :** احمد محمد الشنقيطي

عزيزي المشارك,

نشكر لك رغبتك بالمشاركة في عمل هذه المقابلة الشخصية. اسمي هو احمد محمد الشنقيطي طالب دكتوراة في جامعة جلاسكو باسكتلندا وعضو هيئة تدريب بمعهد الادارة العامة بفرع منطقة مكة المكرمة ومبتعث منها.

هذه المقابلة الشخصية هي جزء من رسالتي لبحث الدكتوراة والذي يهدف الى تعريف مفهوم المكتبات الرقمية الوقفية مع دراسة واقعها الحالي في مكة المكرمة والمدينة المنورة. تهدف الاسئلة في هذه المقابلة الشخصية الى الاجابة عن العديد من التساؤلات المتعلقة بتاريخ المكتبات الوقفية في مكة المكرمة والمدينة المنورة وواقعها الحالي بالاضافة الى الرغبة في معرفة واقع هذه المكتبات من الناحية التقنية, والتي تشمل التعرف على الخدمات الالكترونية المقدمة في هذه المكتبات ووجود مواقع الكترونية لتقديم هذه الخدمات من عدمه بالاضافة الى معرفة الوضع الحالي في عملية رقمنة محتويات المكتبات الوقفية في هذه المكتبات. اضافة الى ذلك تهدف الدراسة الى معرفة شروط الواقف لكل مكتبة وقفية. كما تهدف الى معرفة شروط الحصول على هذه الخدمات الالكترونية وماهي اللوائح المتعلقة بذلك. كما تهدف اخيرا الى معرفة ماهو اثر المكتبة الرقمية الوقفية وخدماتها بشكل عام.

نقدر لكم ونشكر لكم مشاركتكم في عمل هذه المقابلة الشخصية. يقدر الوقت المستغرق للمقابلة بحوالي ساعة ونصف. مع العلم انه يحق لك ايقاف المقابلة في اي وقت والانسحاب في اي وقت.

التاكد من تغطية جميع الجوانب الاخلاقية المتعلقة بهذه المقابلة هو متطلب مهم في جميع الجامعات والمؤسسات الاكاديمية البريطانية. والتي تطلب ان يتم التوضيح لكم بشكل واضح كيف سيتم استخدام البيانات المستخرجة من هذه المقابلة الشخصية, قرائتكم وفهمكم لكل المعلومات في هذا النموذج و توقيعكم عليها في هذا النموذج هو جزء مهم. لذلك نرجو قراءة المعلومات التالية بعناية ومن ثم التوقيع على النموذج مما يعني موافقاتكم على المعلومات التالية :

-يقوم الباحث بجمع البيانات في هذه المقابلة الشخصية بغرض استخدامها لمشروع رسالة الدكتوراة الذي سبق شرحه في الاعلى في جامعة جلاسكو بالاضافة لاغراض النشر الاكاديمي مستقبلا.
- سيتم تسجيل المقابلة الشخصية بشكل صوتي ومن ثم تفريغ المقابلة الصوتية بشكل نص كتابي.

- سيتم حذف التسجيل الصوتي وتدميره فور الانتهاء من تفريغه كتابيا.

-سيتم الاحتفاظ بالبيانات في مكان امن على شبكة جامعة جلاسكو الامنة (ون درايف) والتي تعطي صلاحية الاطلاع على البيانات للباحث فقط.

- سيتم الاحتفاظ بالنسخة المكتوبة من المقابلة الشخصية في مكان امن لمدة خمس سنوات لاستخدامه في اغراض بحثية اخرى.

- اوافق على تسجيل المقابلة الشخصية (فضل اختر المربع الصحيح):

نعم☐ لا☐

- اوفق على تفريغ المقابلة المسجلة صوتيا بشكل نص كتابي ولي الحق في مراجعتها

نعم☐ لا☐

- اوافق على نشر النص الكامل للمقابلة في هذا البحث

نعم☐ لا☐

- اوافق على نشر اسمي الصريح وجهة عملي في هذا البحث

نعم☐ لا☐

- اوافق على ان يقتبس من كلامي بشكل مباشر واستخدامه في هذا البحث

نعم☐ لا☐

اسم المشارك ـــــــــــــــــــــــ

توقيع المشارك ـــــــــــــــــــــــ

التاريخ ـــــــــــــــــــــــ

اسم الباحث وايميل التواصل:

احمد محمد الشنقيطي
()

اسم المشرف الاكاديمي على الباحث في جامعة جلاسكو وايميل التواصل
Professor Lorna M. Hughes
Lorna.Hughes@glasgow.ac.uk

العنوان

Information Studies
11 University Gardens
University of Glasgow
Glasgow, G12 8QQ
Scotland

2- For the Islamic scholars

CONSENT TO THE USE OF DATA(2)

University of Glasgow, College of Arts Research Ethics Committee

Research project title: Digital Waqf libraries in the two holy cities of Mecca and Medina and their user services
Researcher: Ahmed Alshanqiti

Dear participant,
    Thank you for considering participating in this interview. My name is Ahmed Alshanqiti and I am currently a PhD student at University of Glasgow, and a faculty member at the Institute of Public Administration in Saudi Arabia which is my sponsor.
    This interview is a part of my PhD thesis conducted at the University of Glasgow. The thesis aims to introduce the concept of the digital Waqf library and to investigate the existence and current status of digital Waqf libraries in the two holy cities of Mecca and Medina. The interview questions will cover different areas related to this topic, including questions about the concept of Waqf in general, how to deal with the possibility of registering a digital library as a Waqf, and what are the laws and rules regarding this matter.
    Please know that your participation is highly appreciated, and it will help to add significant knowledge to the field of library and information studies. This interview will take about one and a half hour, and you have the right to stop the interview or withdraw from the research at any time.
    Ethical procedures for academic research undertaken from UK academic universities and institutions require that interviewees clearly agree to being interviewed and how the information produced from the interview will be used. This consent form is vital for us to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. Therefore, please read the information below and then sign this form to indicate that you understand and approve the **following:**

- The Researcher is collecting data from this interview for use in an academic research project (explained above) at the University of Glasgow, as well as potential future publication.
- All information collected from this interview will be stored on the University's secure network (One Drive) and will only be accessible to myself.
- All recordings will be destroyed once a transcript has been generated by the researcher and approved by myself.
- At the end of this project, the produced transcript will be retained in a secure laptop and password protected for five years.
- I agree for my interview to be recorded (select one):
  ☐ Yes   ☐ No

- I agree for a transcript of my interview to be generated and that I will have the right to review and edit my responses before publication:
  ☐ Yes ☐ No
- I agree for the transcript to be published with this research:
  ☐ Yes ☐ No
- I agree for my name and institutional affiliation to be revealed in any publications resulting from this research:
  ☐ Yes ☐ No
- I agree to be quoted directly in any publications resulting from this research:
  ☐ Yes ☐ No

Participant's name: _____

Participant's signature: _____

Date: _____

Researcher's name and email contact:

Ahmed Alshanqiti
()

Supervisor's name and email contact:
Professor Lorna M. Hughes
Lorna.Hughes@glasgow.ac.uk

Department address:
Information Studies
11 University Gardens
University of Glasgow
Glasgow, G12 8QQ
Scotland

University
of Glasgow
VIA VERITAS VITA

نموذج موافقة على عمل مقابلة شخصية واستخدام البيانات المتعلقة بهذه المقابلة (2)

جامعة جلاسكو باسكتلندا

- **اسم المشروع (رسالة دكتوراة):** المكتبات الوقفية الرقمية في مكة والمدينة وخدماتها

- **الباحث :** احمد محمد الشنقيطي

عزيزي المشارك,

نشكر لك رغبتك بالمشاركة في عمل هذه المقابلة الشخصية. اسمي هو احمد محمد الشنقيطي طالب دكتوراة في جامعة جلاسكو باسكتلندا وعضو هيئة تدريب بمعهد الادارة العامة بفرع منطقة مكة المكرمة ومبتعث منها.

هذه المقابلة الشخصية هي جزء من رسالتي لبحث الدكتوراة والذي يهدف الى تعريف مفهوم المكتبات الرقمية الوقفية مع دراسة واقعها الحالي في مكة المكرمة والمدينة المنورة. تهدف الاسئلة في هذه المقابلة الشخصية الى الاجابة عن عدد من التساؤلات المتعلقة بالجانب الفقهي من الدراسة. تتمحور الاسئلة عن مفهوم الوقف بشكل عام بالاضافة لمحاولة فهم كيفية التعامل مع المكتبات الرقمية في حالة الرغبة بتسجيلها كوقف, ويتضمن ذلك معرفة الشروط اللازمة لذلك وماهو مقبول او غير مقبول من الاجراءات لتتماشى مع شروط واجراءات الوقف.

نقدر لكم ونشكر لكم مشاركتكم في عمل هذه المقابلة الشخصية. يقدر الوقت المستغرق للمقابلة بحاولي ساعة ونصف. مع العلم انه يحق لك ايقاف المقابلة في اي وقت والانسحاب في اي وقت.

التاكد من تغطية جميع الجوانب الاخلاقية المتعلقة بهذه المقابلة هو متطلب مهم في جميع الجامعات والمؤسسات الاكاديمية البريطانية. والتي تطلب ان يتم التوضيح لكم بشكل واضح كيف سيتم استخدام البيانات المستخرجة من هذه المقابلة الشخصية, قرائتكم وفهمكم لكل المعلومات في هذا النموذج و توقيعكم عليها في هذا النموذج هو جزء مهم. لذلك نرجو قراءة المعلومات التالية بعناية ومن ثم التوقيع على النموذج مما يعني موافقاتكم على المعلومات التالية :

-يقوم الباحث بجمع البيانات في هذه المقابلة الشخصية بغرض استخدامها لمشروع رسالة الدكتوراة الذي سبق شرحه في الاعلى في جامعة جلاسكو بالاضافة لاغراض النشر الاكاديمي مستقبلا.
- سيتم تسجيل المقابلة الشخصية بشكل صوتي ومن ثم تفريغ المقابلة الصوتية بشكل نص كتابي.
- سيتم حذف التسجيل الصوتي وتدميره فور الانتهاء من تفريغه كتابيا.

-سيتم الاحتفاظ بالبيانات في مكان امن على شبكة جامعة جلاسكو الامنة (ون درايف) والتي تعطي صلاحية الاطلاع على البيانات للباحث فقط.

- سيتم الاحتفاظ بالنسخة المكتوبة من المقابلة الشخصية في مكان امن لمدة خمس سنوات لاستخدامه في اغراض بحثية اخرى.

- اوافق على تسجيل المقابلة الشخصية (فضل اختر المربع الصحيح):

☐نعم ☐لا

- اوافق على تفريغ المقابلة المسجلة صوتيا بشكل نص كتابي ولي الحق في مراجعتها

☐نعم ☐لا

- اوافق على نشر النص الكامل للمقابلة في هذا البحث

☐نعم ☐لا

- اوافق على نشر اسمي الصريح وجهة عملي في هذا البحث

☐نعم ☐لا

- اوافق على ان يقتبس من كلامي بشكل مباشر واستخدامه في هذا البحث

☐نعم ☐لا

اسم المشارك ـــــــــــــــــــ

توقيع المشارك ـــــــــــــــــــ

التاريخ ـــــــــــــــــــ

اسم الباحث وايميل التواصل:

احمد محمد الشنقيطي
()

اسماء المشرفين الاكاديمين على الباحث في جامعة جلاسكو وايميلات التواصل
Dr. Paul Gooding
Paul.Gooding@glasgow.ac.uk

Dr. Timothy Duguid
Tim.Duguid@glasgow.ac.uk

Professor Lorna M. Hughes
Lorna.Hughes@glasgow.ac.uk

العنوان
Information Studies
11 University Gardens

University of Glasgow
Glasgow, G12 8QQ
Scotland

Appendix (E) Photographs of the academic library of Umm Al Qura University مكتبة جامعة ام القرى

Main entrance of the library. Photograph taken by the researcher.

The private entrance to the Waqf collection, which is kept separate from the normal academic collection of the library. Photograph taken by the researcher.

Part of the Waqf collection. Photograph taken by the researcher.

Part of the Waqf collection with banners shows the name of the Waqf libraries on this side of the shelves. Photograph taken by the researcher.

Appendix (F) Photographs of The Academic Library of the Islamic University مكتبة الجامعة الاسلامية

Main building of the library. Photograph taken by the researcher.

On the first floor, an arrow indicates the way to the Waqf libraries' collection which is separate from the library's normal academic collection. Sentence above the arrow says (Waqf libraries). Photograph taken by the researcher.

The private room that holds the Waqf library of Al-Shaikh Mohammed Alalbani (kept separated from the other Waqf libraries and from the rest of the normal academic collection) . Photograph taken by the researcher.

The written will of Al-Shaikh Mohammed Alalbani where he stated that he wants to donate his library as a Waqf to the Islamic University in Medina. Photograph taken by the researcher.

The private room that holds the Waqf library of Al-Shaikh Obaid Madani (kept separated from the other Waqf libraries and from the rest of the normal academic collection). Photograph taken by the researcher.

From inside the Al-Shaikh Obaid Madani Waqf library. Photograph taken by the researcher.

From inside the Al-Shaikh Obaid Madani Waqf library. Photograph taken by the researcher.

Appendix (G) Photographs of Makkah Al Mukaramah Waqf library (مكتبة مكة المكرمة\المولد)

Main building of the library. Photograph taken by the researcher.

Inside the library. Photograph taken by the researcher.

One of the rooms inside the library where Waqf libraries are kept separately. The two signs on the door show the names of the two different Waqf libraries that are located inside the room. . Photograph taken by the researcher.
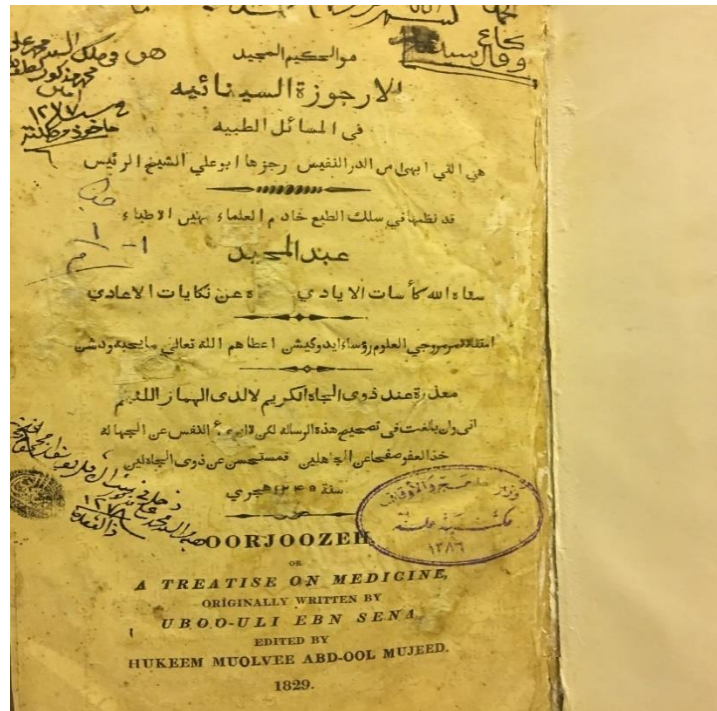
Sample from the library's collection. Photograph taken by the researcher.
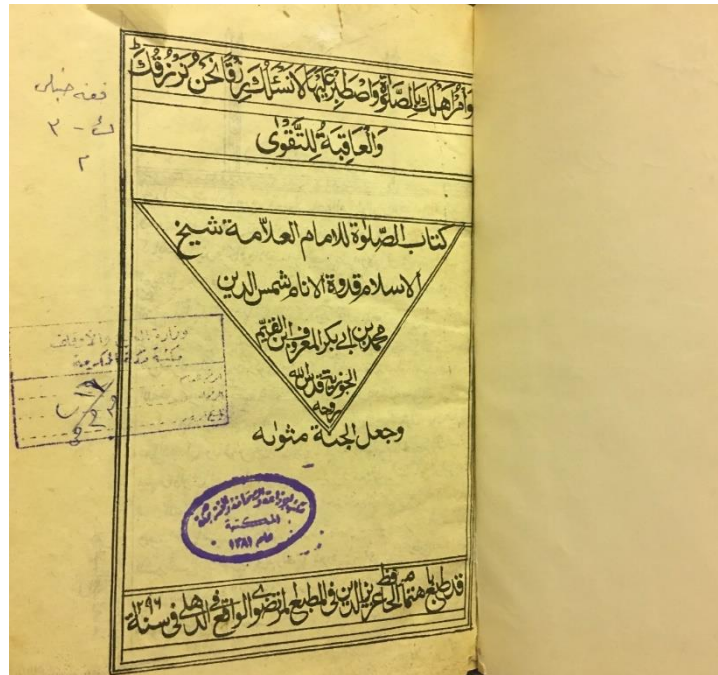
Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Appendix (H) Photographs of Al Haram Al Makkey Al Shareef Waqf library (the library of the holy mosque in Mecca) مكتبة الحرم المكي الشريف

Main bulding of the library. Photograph taken by the researcher.

Sample from the library's collection. The photograph shows the original location of the library when it was next to the Kabah inside the holy mosque of Mecca between the years 1845-1883). Photograph taken by the researcher.

Inside the library. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

الجامع الصحيح للبخاري (صحيح البخاري)

المؤلف : الإمام محمد بن إسماعيل البخاري

سنة الوفاة : ٢٥٦ هـ

الجزء الثالث

نموذج من خطوط القرن الرابع عشر

الفن : حديث

Sample from the library's collection. Photograph taken by the researcher.

Printed catalogue of the library's manuscript collection. Photograph taken by the researcher.

Appendix (I) Photographs of Al Masjed Al Nabawi Waqf Library, the Library of the holy mosque in Medina مكتبة المسجد النبوي الشريف

The main entrance to the library. Photograph taken by the researcher.

The main entrance to the library. Photograph taken by the researcher.

Inside the library showing the computers that can be used on-site by visitors to access the digitised collection. Photograph taken by the researcher.

Appendix (J) Photographs of King Abul-Aziz Complex for Waqf Libraries مجمع الملك عبد العزيز للمكتبات الوقفية

Main entrance (temporary location). Photograph taken by the researcher.

A separate room that holds the collection of the Arief-Hikmet Waqf library (مكتبة عارف حكمت). Photograph provided by the library's staff.

Sample from the library's collection. Photograph provided by the library's staff.

Sample from the library's collection. Photograph provided by the library's staff.

Appendix (K) Photographs of Al Busati Waqf Library.مكتبة البساطي

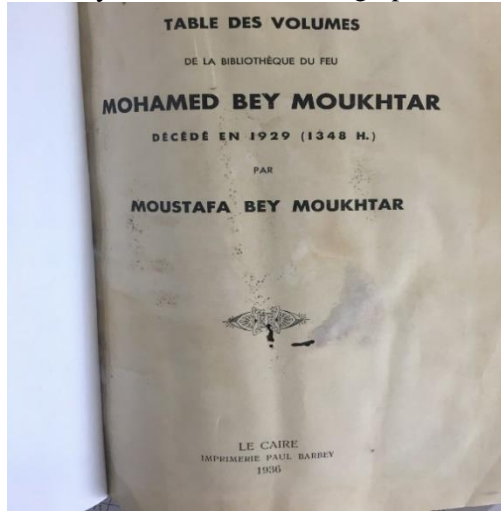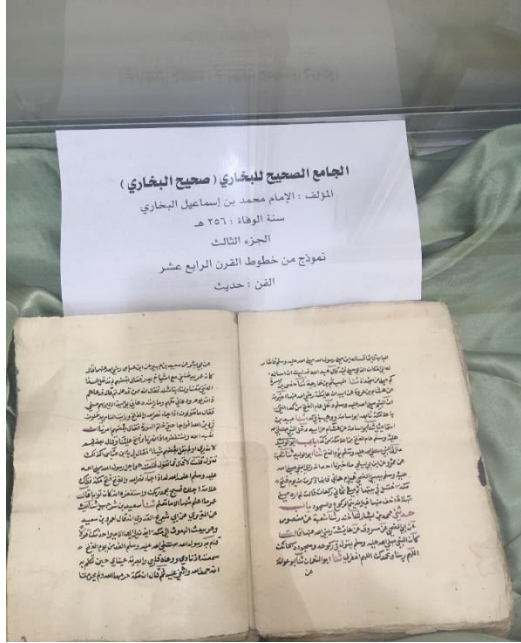Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

The scanner that has been currently used to digitise the library's collection. Photograph taken by the researcher.

Appendix (L) Photographs of Muzhar Al -Farouqi Waqf library مكتبة مظهر الفاروقي

The main room of the library. The writing on the door says:[The Waqf of the library of Al Sheikh Mohammed Muzhar Al-Farouqi, established in 1874]. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Sample from the library's collection. Photograph taken by the researcher.

Appendix (M) Names of the Waqf libraries that reside within the eight visited Waqf libraries in **Mecca and Medina (where available and applicable).**

Makkah Al Mukaramah Waqf library (Almawalaed) (مكتبة مكة المكرمة\المولد) in Mecca holds 19 Waqf libraries as follows:

1- Majed Kurdi Waqf library مكتبة ماجد كردي,
2- Abdulhamed Kodos Waqf library مكتبة عبدالحميد قدس ,
3- Hassan Mashat Waqf library مكتبة حسن مشاط ,
4- Hussin Arab Waqf library مكتبة حسين عرب ,
5- Mohammed Ali Maleki Waqf library مكتبة محمد علي بن حسين ابراهيم المالكي,
6- Mohammed Suliman Hassab Allah Waqf library مكتبة محمد سليمان حسب الله,
7- Omar Alfarouq Waqf library مكتبة عمر الفاروق ,
8- Seraj Shisha Waqf library مكتبة سراج ششة ,
9- Al Sada Al Adaresa Waqf library مكتبة السادة الادارسة
10- Salem Aljefery Waqf library مكتبة السيد سالم الجفري ,
11- Rashed Farsi Waqf library مكتبة رشيد فارسي,
12- Mohammed Awad Waqf library مكتبة محمد عوض ,
13- Shata Waqf library مكتبة شطا ,
14- Ibrahim Alaf Waqf library مكتبة ابراهيم علاف ,
15- Almarzouqi Waqf library مكتبة المرزوقي ,
16- Abdullah Al Hakami Waqf library مكتبة الشيخ عبدالله الحكمي ,
17- Abbas Abduljabar Waqf library مكتبة عباس عبد الجبار ,
18- Faisal Iraqie Waqf library مكتبة فيصل عراقي ,
19- Ibrahim Rakkah Waqf library مكتبة ابراهيم ركة .

Al Haram Al Makkey Al Shareef Waqf Library (مكتبة الحرم المكي الشرف) in Mecca holds 34 Waqf libraries (as explained in the Findings chapter, the library has more than 34 Waqf libraries, however the official number and names of the libraries that were available at the time of the visit by the researcher was 34) as follows :

1- Hassan Ali Al-Edries Waqf library مكتبة السيد حسن علي الادريس,
2- Abdulasattar Aldahlawi Waqf library الشيخ عبد الستار دهلوي مكتبة
3- Ali Alkelani Waqf library مكتبة الشيخ علي الكيلاني
4- Abdulwahaab Aldahlawi Waqf library مكتبة الشيخ عبد الوهاب دهلوي
5- Abdulrahman Almualmi Waqf library مكتبة عبد الرحمن المعلمي
6- Abdulgani Zamzmi Waqf library مكتبة عبد الغني زمزمي
7- Omar Althobaibi Waqf library مكتبة عمر الذبيبي
8- Abdulmoen Abu-Alsamh Waqf library مكتبة عبد المعين ابو السمح
9- Abdulmaliek AL- Alshaikh Waqf library مكتبة عبدالملك ال الشيخ
10- Ismaiel Hariri Waqf library مكتبة اسماعيل حريري
11- Yasen Alathma Waqf library مكتبة الشيخ ياسين العظمة

12- Mohammed Ahmed Faki Waqf library مكتبة الاديب محمد احمد فقي

13- Mohammed Awd Razeq Waqf library مكتبة الدكتور محمد عوض رزيق

14- Ahmed Alarabie Waqf library مكتبة الشيخ احمد العربي

15- Abdullah Duhish Waqf library مكتبة عبدالله دهيش

16- Abdulrahem Seddeq Waqf library مكتبة عبدالرحيم صديق

17- Ali Alhendi Waqf library مكتبة علي الهندي

18- Mohammed Saleh Altf Waqf library مكتبة محمد صالح الطف

19- Suliman Obied Waqf library مكتبة سليمان عبيد

20- Prince Abdulmehsin bin AbdulAziz Al Saud Waqf library مكتبة الأمير عبدالمحسن بن عبد العزيز ال سعود

21- Abdullah Mohammed Hakmi Waqf library مكتبة عبدالله محمد حكمي

22- Abdulrahman Abuhemid Waqf library مكتبة عبدالرحمن ابوحيمد

23- Mohammed Saleh Bondoqgi Waqf library مكتبة محمد صالح بندقجي

24- Adel Abdulhamed Turkustani Waqf library مكتبة عادل عبد الحميد تركستاني

25- Mohammed Abdullah Takroni Waqf library مكتبة محمد عبدالله تكروني

26- Alshareef Hasan Waqf library مكتبة الشريف حسن

27- Mohammed Saled Faran Waqf library مكتبة محمد صالح فران

28- Mariam Ali Alzain Waqf library مكتبة مريم علي الزين

29- Nabil Abullah Alhusain Waqf library مكتبة نبيل عبدالله الحصين

30- Albeladi Waqf library مكتبة البلادي

31- Abdulkaem Albaz Waqf library مكتبة عبدالكريم الباز

32- Ahmed Abdulgani Alhelali Waqf library مكتبة احمد عبدالغني الهلالي

33- AbdulRahman Alsaqa Waf library مكتبة عبد الرحمن السقا

34- Um Suliman Alsahaf Waqf library مكتبة ام سليمان الصحاف

King Abdul-Aziz Complex for Waqf Libraries in Medina holds 34 Waqf libraries, however, the researcher was able to acquire the names of 30 of them as follows:

1- Almushaf Alshareef Waqf library مكتبة المصحف الشريف

2- Almahmudia Waqf library المكتبة المحمودية

3- AlMadrasa Alehsania Waqf library مكتبة المدرسة الاحسانية

4- Madrasat Alshefa Waqf library مكتبة درسة الشفاء

5- Almadrasa Algazania Waqfl ibrary مكتبة المدرسة القازانية

6- Rebat Basher Aga Waqf library مكتبة رباط بشير اغا

7- Rebat Aljbrt Waqf library مكتبة رباط الجبرت

8- Mohammed Ibrahim Alkatni Waqf library مكتبة محمد ابراهيم الختني

9- Abulrahman Alsafi Waqf library مكتبة عبدالرحمن الصافي

10- Aref Hikmat Waqf library مكتبة عارف حكمت

11- Almadinah Almonawarah libraty مكتبة المدينة المنورة العامة

12- Madrasat AlSaqezli Waqf lirary مكتبة مدرسة الساقزلي

13- Almadrasa AlAurfania Waqf library مكتبة المدرسة العرفانية

14- Madrasat Kelly Natheri Waqg library مدرسة كيلي ناظري

15- Rebat Othman bin Affan Waqf library مكتبة رباط عثمان بن عفان (رضي الله عنه)

16- Rebat Qurat Bash Waqf library مكتبة رباط قرة باش

17- Abdulgader Shalbi Waqf library مكتبة عبدالقادر شلبي

18- Omar Hamdan Waqf library مكتبة عمر حمدان

19- Mohammed Noor Kutbi Waqf library مكتبة محمد نور كتبي

20- Mohammed Alkheder Alshangity Waqf library مكتبة محمد الخضر الشنقيطي

21- Abdulgader Algazaeri Waqf library مكتبة عبدالقادر الجزائري

22- Abdulaziz Mohammed Almarakeshi Waqf library مكتبة عبدالعزيز محمد المراكشي

23- Mohammed Ahmed Alrwaithei Waqf library مكتبة محمد احمد الرويثي

24- Salem Asaad Noaman Waqf library مكتبة سالم أسعد نعمان

25- Hassan Kutbi Waqf library مكتبة حسن كتبي

26- Abdulrahman Alkayal Waqf library مكتبة عبدالرحمن الخيال

27- Ammar Alazar Alhelali Waqf library مكتبة عمار الأزعر الهلالي

28- Abbas Ahmed Sagor Alhusaini Waqf library مكتبة عباس احمد صقر الحسيني

29- Mohammed Ali Almuailhi Waqf library مكتبة محمد علي المويلحي

30- Abdullah Alhujaile Waqf library مكتبة عبدالله الحجيلي

The Academic Library of Umm Al Qura University in Mecca holds 18 Waqf libraries as follows :

1- Ibn Jubair Waqf library مكتبة ابن جبير

2- Ahmed Ibrahin Gazawi Waqf library مكتبة احمد ابراهيم غزاوي

3- Ahmed Alsharafei Waqf library مكتبة احمد الشرفي

4- Ibrahim Almehalawi Waqf library مكتبة ابراهيم المحلاوي

5- Hamed Harasani Waqf library مكتبة حامد هرساني

6- Hussain Arab Waqf library مكتبة حسين عرب

7- Sadeiq Dahlan Waqf library مكتبة صادق دحلان

8- Saleh Bakotma Waqf library مكتبة صالح باخطمة

9- Abdullah Al-Alsheik Waqf library مكتبة عبدالله ال الشيخ

10- Abdullah Aljefri Waqf library مكتبة عبدالله الجفري

11- Alawi Shata Waqf library مكتبة علوي شطا

12- Ghssan Alramal Waqf library مكتبة غسان الرمال

13- Mohammed Ibrahim Ali Waqf library مكتبة محمد علي ابراهيم

14- Mohammed Bakhet Waqf library مكتبة محمد بخيت

15- Mohammed Hammed Qari Waqf library مكتبة محمد حامد قاري

16- Mohammed Suror Sabban Waqf library مكتبة محمد سرور صبان

17- Mohammed Saeed Gassal Waqf library مكتبة محمد سعيد غسال

18- Abdulwahab Ashi Waqf library مكتبة عبدالوهاب اشي

The Academic Library of the Islamic University in Medina holds two main Waqf libraries and different smaller Waqf collections of books, the two main Waqf libraries are as follows: (the names and numbers of the smaller Waqf collection was not accessible by the researcher).

1- Al-Shaikh Mohammed Alalbani Waqf library مكتبة الشيخ محمد الألباني

2- Al-Shaikh Obaid Madani Waqf library مكتبة الشيخ عبيد مدني

Appendix (P) The researcher Waqf certificate

The certificate and the testimony from Shaikh Dr Amir Bahjat for the researcher upon completing and passing the course of the *Faiqh* of Waqf. This certificate allows the researcher to explain and pass on knowledge of Waqf, but does not authorise the researcher to give verdicts or responses regarding new cases that have not yet been studied by recognised Islamic scholars. In such cases, the scholars' advice must be sought. This course was supervised and managed by *Waqef* centre in Riyadh (A non-profit organisation providing advisory services concerning Waqf donations and wells).

بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيمِ

الإِجَازَةُ العِلْمِيَّةُ فِي الحَقِيبَةِ المُوَسَّعَةِ فِي أَحْكَامِ الوَقْفِ

الحَمْدُ للهِ، وَصَلَّى اللهُ وَسَلَّمَ عَلَى رَسُولِ اللهِ، وَعَلَى آلِهِ وَصَحْبِهِ أَمَّا بَعْدُ:

فَلَمَّا كَانَ/ احمد محمد سيد الشنقيطي –وَفَّقَهُ اللهُ– مِمَّنْ أَتَمُّوا دَوْرَةَ فِقْهِ الوَقْفِ عَبْرَ الإِنْتَرْنِت –حَسَبَ النَّمَاذِجِ الإِلِكْتُرُونِيَّةِ– فَقَدْ أَجَزْتُهُ فِي مُقَرَّرِ الدَّوْرَةِ إِجَازَةً خَاصَّةً وَأَذِنْتُ لَهُ أَنْ يَرْوِيَهُ عَنِّي بِشَرْطِ الضَّبْطِ وَالإِتْقَانِ وَالتَّحَرِّي وَالدِّقَةِ، وَالتَّثَبُّتِ فِيمَا يُشْكِلُ، وَالمُرَاجَعَةِ فِيمَا يُعْضِلُ مَعَ العُلَمَاءِ المُتْقِنِينَ، وَالرُّجُوعِ فِي المَسَائِلِ إِلَى كَلَامِ الفُقَهَاءِ المُتْقِنِينَ، وَعَدَمِ الإِقْدَامِ عَلَى الإِفْتَاءِ قَبْلَ التَّأَهُّلِ لَهُ بِشُرُوطِهِ المُقَرَّرَةِ عِنْدَ أَهْلِ العِلْمِ، وَأَنْ يَقُولَ لِمَا لَا يَعْلَمُهُ: «لَا أَدْرِي»، وَأُوصِيهِ بِالاِعْتِصَامِ بِالكِتَابِ وَالسُّنَّةِ، وَمُوَاصَلَةِ طَلَبِ العِلْمِ وَالتَّفَقُّهِ فِي الدِّينِ، وَنَشْرِ سُنَّةِ الوَقْفِ وَالحَثِّ وَالإِعَانَةِ عَلَيْهَا مُحْتَسِبًا الأَجْرَ فِي ذَلِكَ، كَمَا أَرْجُو أَلَّا يَنْسَانِي مِنْ دُعَائِهِ وَالحَمْدُ للهِ رَبِّ العَالَمِينَ.

وَكَتَبَهُ الفَقِيرُ إِلَى اللهِ تَعَالَى:

عَامِرُ بنُ مُحَمَّد فِدَاء بَهْجَت

المدينة النبوية– ١٤٤١/١٢٧هـ

شهادة إتمام برنامج فقه الوقف
و إجازة علمية

الحمد لله و الصلاة و السلام على رسول الله ، وبعد :
فيشهد مركز واقف خبراء الوصايا و الأوقاف لـ /

احمد محمد سيد الشنقيطي

باجتياز برنامج فقه الوقف وذلك في نسخته الثانية عبر النماذج
الإلكترونية في القناة التعليمية في الوقف عبر التليقرام
في الفترة من تاريخ (١٣ / ١١ إلى ١٩ / ١١ / ١٤٤١هـ)
ونوصيه بتقوى الله تعالى و مواصلة طلب العلم الشرعي و السعي لإحياء سنة الوقف وبثها بين الناس .
ومرفق مع الشهادة إجازة علمية لمن اجتاز البرنامج .
وصلى الله على نبينا محمد و على آله وصحبه أجمعين .

مقدم البرنامج :
د. عامر بن محمد فداء بهجت

المشرف العام على مركز واقف
سليمان بن جاسر الجاسر

References

Abbasi, M. (2012). The Classical Islamic Law of Waqf: A Concise Introduction. *Arab Law Quarterly*, *26*(2), 121–153. doi: https://doi.org/10.1163/157302512X629124.

Abdullah, M. (2016). Waqf versus implied trust: A comparison of form and substance. *Trusts & Trustees*, *22*(3), 336. doi:10.1093/tandt/ttv136

Accounting and Auditing Organization for Islamic Financial Institutions. (2017). *Shari'ah Standards*. ISBN 6-9616-01-603-978

Akhunov, A. (2015). Issue of Waqf in the Context of Establishment of Muslim Institutions in the Post-Soviet Tatarstan. *Journal of Sustainable Development*. *8*(5), 157–163. doi: 10.5539/jsd.v8n5p157.

AlAbdulgabar, A. (2010). Al maktabat al raqamiah al saudiah: Derasa lelwaqe wamoqawemat tahqeq al taawn المكتبات الرقمية السعودية : دراسة للواقع ومقومات تحقيق التعاون [Digital libraries in Saudi Arabia : A study to the current status and the means to achieve cooperation]. Arab Federation For Libraries & information, and the Lebanese Library Association, The Twenty One Conference : The Arabic Digital Library: I am Arabic : Necessities, Opportunities, and Challenges. pp. 1740–1765.

Alahmed, M. (2018). Waqf al ashom fe al sharekat al mosahema وقف الاسهم في الشركات المساهمة [The Waqf of stocks in joint stock companies]. See for awqaf development.

Aldawood, A. (1980).Al Waqf :Shoroth wa kasaesoh الوقف:شروطه وخصائصه [Waqf: its conditions and characteristics]. *Adwa AL-sharia Magazine*, *11*, 103–185.

Alexe, I. (2010). About two types of books and two types of libraries. *Revista Română De Biblioteconomie şi Ştiinţa Informării*, *6*(4), 22–28.

Al-Fawzan, S. (2011). *A summary of Islamic jurisprudence* (Vol. 2). Riyadh: Dar Almaiman, Publishing and Distributing.

Alharthi, W. J. (2021). Using Blockchain in WAQF, Wills and Inheritance Solutions in the Islamic System. *International Journal of Economics & Business Administration (IJEBA)*, *9*(2), 101–116.

Ali, M. & Maravia, U. (2020). Seven Faces of A Fatwa: Organ Transplantation and Islam. Religions. 11. 99. 10.3390/rel11020099.

Almoathem, N.(2010).Al maktabat Al raqameyah fe Al mamlaka Al Arabiya AlSaudia: Derasa taqwemiah ala maktabat Al Malik Fahad Alwatanya المكتبات الرقمية في المملكة العربية السعودية : دراسة تقويمية على مكتبة الملك فهد الوطنية [Digital Libraries in Saudi Arabia: Evaluation study on King Fahad National Library]. [Doctoral dissertation, Omdurman Islamic University.]

Almoshaqeh, K. (2013).Al jame le Ahkam Al Awqaf Wa Al hebat Wa Al Wasaya الجامع لاحكام الوقف والهبات والوصايا[The compilation of the rules of Waqf, Giveaways and Wills]. Ministry of Waqf and Islamic Affairs, Qatar.

Almuzaini, A. (1999).Maktabat Al Malik AbdulAziz bayn Al Madi Wa Alhader مكتبة الملك عبد العزيز بين الماضي والحاضر[*King AbdulAziz Library between the Past and the Present*].

Alomair, M. (2018). *Governance and Accountability in Corporate Waqf Institutions in Saudi Arabia* (Doctoral dissertation, Royal Holloway, University of London, London, United Kingdom).

AlReyaee, S. (2006). *Factors that influence the attitude of academic librarians in Saudi Arabia toward copyright laws* [Unpublished doctoral dissertation]. McGill University.

AlSalm, S. (1999).Al maktabat fe Ahd Al Malik AbdulAziz المكتبات في عهد الملك عبد العزيز [Libraries in King Abdul-Aziz Era]. The General Secretariat of The One Hundred Years Celebration.

AlSalm, S. (1999).Johod Al Malik AbdulAziz fe Daem Harakat Al maktabat جهود الملك عبد العزيز في دعم حركة المكتبات [The efforts of King Abdul-Aziz in supporting libraries]. Riyadh: *King Fahad National Library Magazine*.

Alshangity, M. (2015).Al Maktabat AkWaqfeyah fe AlMadinah Almunawarah : Tarekha wa Haderoha wa Motagbalha المكتبات الوقفية بالمدينة المنورة :تاريخها وحاضرها ومستقبلها [*Al Waqf (The Endowment) libraries in Al-Madinah, its history, present status, and future prospects*]. Cairo: Cairo University.

AlShaye, S. (2017).Al Awqaf AlFeqhea wa Ahkamoha AlRakameya ألأوقاف الفقهية واحكامها الرقمية [Electronic Waqf and its Fiqh rules]. Saee for Awqaf Development.

Alshiban, O. (2015).Mawqef Al Mostafte mn Taadod Al Fatwa موقف المستفتي من تعدد الفتوى[The position of the Mustafti in case of multiplications of Fatwas]. مجلة البحوث والدراسات الشرعية [*Magazine of Research and Shariah Studies*]. Volume 34. Retrieved from: https://units.imamu.edu.sa/colleges/sharia/rnd/Documents/%D8%A3%D8%B5%D9%88%D9 %84%20%D8%A7%D9%84%D9%81%D9%82%D9%87/%D9%85%D9%88%D9%82%D9 %81%20%D8%A7%D9%84%D9%85%D8%B3%D8%AA%D9%81%D8%AA%D9%8A%2 0%D9%85%D9%86%20%D8%AA%D8%B9%D8%AF%D8%AF%20%D8%A7%D9%84% D9%81%D8%AA%D9%88%D9%89%20%D8%AF.%20%D8%A3%D8%B3%D8%A7%D9 %85%D8%A9%20%D8%A7%D9%84%D8%B4%D9%8A%D8%A8%D8%A7%D9%86.pdf

Alsiddiqi, S. (2003).Athr Alwaqaf Al Islamie fe AlHaya Al elmya fe Al Madinah Al Munawara اثر الوقف الاسلامي في الحياة العلمية بالمدينة المنورة [*The effect of Islamic endowments on cultural mileau in Al-Madinah Al-Munawwarah*]. Medina: Medina's Research and Studies Centre.

AlSuraie, S. (2001).Nashat wa Tatawor Al Maktabat wa Kadamatoha fe Al Mamlaka Al Arabitya Al Saudia نشأة وتطور المكتبات وخدماتها في المملكة العربية السعودية [The emergence and

development of Libraries and their services in Saudi Arabia]. *King Fahad National Library Magazine*, *7*(2), 5–65.

Alzohili, M. (2006).Al Qawaed Al Feqheya wa Tatbekatha fe Al Mathaheb Al Arbaa القواعد الفقهية وتطبيقاتها في المذاهب الاربعة[*The rules of Fiqh and its implementation in the four schools of Islam*], Damascus: Dar-Alfikr.

American Library Association. (2019). *Definition of a Library*. Retrieved from https://libguides.ala.org/library-definition.

Appleton, L., Hall, H., Duff, A. S., & Raeside, R. (2018). UK public library roles and value: A focus group analysis. *Journal of Librarianship and Information Science*, *50*(3), 275–283.

Aramburo, A. S. (2019). The future of national libraries. Alexandria, 29(3), 225–227. https://doi.org/10.1177/0955749019892373

Arms, W. (2000). *Digital libraries*. Cambridge, MA: MIT Press.

Awass, O. (2014). Fatwa: *The evolution of an Islamic legal practice and its influence on Muslim society* (Order No. 3623102). Available from ProQuest Dissertations & Theses A&I. (1548716435). Retrieved from http://ezproxy.lib.gla.ac.uk/login?url=https://www.proquest.com/docview/1548716435?accountid=14540

Bameflh, F. (2003).Eistkhdam Teqaneyat Al Maelomat fe Maktabat Al Awqaf اسخدام تقنية المعلومات في مكتبات الاوقاف السعودية دراسة للواقع وتطلعات المستقبل [The Use of Information Technology in Waqf Libraries In Saudi Arabia; Realities and future hopes]. *King Fahad National Library Magazine*. *8*(2), 5–31.

Baruzzo, A., Casoto, P., Dattolo, A., & Tasso, C. (2009). *A Conceptual Model for Digital Libraries Evolution*. WEBIST 9, 299–304.

Bearman, D. A. (2007). Digital libraries. *Annual Review of Information Science and Technology*, *41*, 223–272. Retrieved from: https://doi.org/10.1002/aris.2007.1440410112

Beiligi, F. (2013).Al Maktabat Alwaqfya fe Istambul fe Al qarn Al 16 Al Meladi المكتبات الوقفية في استانبول في القرن 16 الميلادي [Waqf libraries in Istanbul in the 16th century]. *Egypt: the Institute of Arabic Manuscripts Magazine*, *57*(2), 203–233.

BenAicha, H. (1986). Mosques as Libraries in Islamic Civilization, 700–1400 A.D. *Journal of Library History*, Spring 1986, *21*(2), ProQuest, 253.

Bhar, D., Mallik, S., Ray, M., & Modak, S. (2018). *Features of Academic Libraries in Twenty Fast Centuries. Academic Libraries in India: Challenges and Future*, (Acharjya, N., Ed.), New Delhi: Kunal Books. Available at SSRN: https://ssrn.com/abstract=3198828

Black, A., & Hosen, N. (2009). Fatwas: Their Role in Contemporary Secular Australia (2009). *Griffith Law Review*, *18*(2), 405–427, University of Queensland TC Beirne School of Law Research Paper No. 15–10, Available at SSRN: https://ssrn.com/abstract=2610387

Bolter, J., & Grusin, R. (1999). *Remediation: Understanding new media.* Cambridge, MA: MIT Press.

Borgman, C. L. (1999). What are digital libraries? Competing visions. *Information Processing & Management*, 35, 227–243. doi:10.1016/S0306-4573(98)00059-4

Borună, A. E. (2013). The European national libraries: Discussion about resources versus functions. *Revista Română De Biblioteconomie și Știința Informării*, *9*(2), 55–58.

Breeding, M. (2014). Ongoing challenges in digitization. *Computers in Libraries*, *34*(9), 16–18. Retrieved from https://search.proquest.com/docview/1625138510?accountid=14290

Brey, A. (2016). Quantifying the Quran. In E. Muhanna (Ed.), *The Digital Humanities and Islamic & Middle East Studies* (pp. 151–174). Berlin, Boston: DeGruyter. https://doi.org/10.1515/9783110376517-008

British Newspaper Archive. (2018). About The British Newspaper Archive. Retrieved December 1, 2018 from https://www.britishnewspaperarchive.co.uk/help/about

Brooks, J. & King, N. (2014). *Doing Template Analysis: Evaluating an End-of-Life Care Service*. London: Sage.

Brophy, P. (2001). *The library in the twenty-first century: New services for the Information Age*. London, United Kingdom: Library Association Publishing.

Bultmann, B., Hardy, R., Muir, A., & Wictor, C. (2006). Digitized content in the UK research library and archives sector. *Journal of Librarianship and Information Science*, *38*(2), 105–122. http://dx.doi.org/10.1177/0961000606063893
Bush, V. (1945). As we may think. *The Atlantic Monthly*, *176*(1), 101–108. Retrieved from http://www.theatlantic.com /magazine/archive/1945/07/as-we-may-think/303881/

Calhoun, K. (2014). *Exploring digital libraries: Foundations, practice, prospects*. Chicago: Neal-Schuman.

Candela, L., Athanasopoulos, G., Castelli, D., El Raheb, K., Innocenti, P., Ioannidis, Y, & Ross, S. (2011). The digital library reference model. DL. org Project Deliverable.

Candela, L., Castelli, D., Pagano, P., Ioannidis, Y., Koutrika, G., & Ross, S. (2006). The Digital Library Manifesto: DELOS A Network of Excellence on Digital Libraries.

Candela, L., Castelli, D., Pagano, P., Thano, C., Ioannidis, Y., Koutrika, G., & Schuldt, H. (2007). Setting the foundations of digital libraries: The DELOS manifesto. *D-Lib Mag*, *13*(3–4). Retrieved from http://www.dlib.org/dlib/march07/castelli/03castelli.html

Cassell, C. & Bishop, V. (2019). *Qualitative Data Analysis: Exploring Themes, Metaphors and Stories*. Wiley Subscription Services, Inc. doi:10.1111/emre.12176.

Chepesiuk, R. (1997). The future is here: America's libraries go digital. *American Libraries*, *27*(1), 47–49. Retrieved from

Chowdhury, G. G., & Chowdhury, S. (1999). Digital library research: major issues and trends. *Journal of Documentation*, *55*(4), 409–448. https://doi.org/10.1108/EUM0000000007154

Chowdhury, M. S. R., Ghazali, M. F. B., & Ibrahim, M. F. (2011). Economics of cash Waqf management in Malaysia: A proposed cash Waqf model for practitioners and future researchers. *African Journal of Business Management*, *5*(30), 12155–12163. doi: 10.5897/AJBM11.1810.

Cleveland, G. (1998). *Digital libraries: definitions, issues and challenges*. IFLA, Universal dataflow and telecommunications core programme. Retrieved from https://archive.ifla.org/VI/5/op/udtop8/udt-op8.pdf

Cohen, D., & Crabtree, B., (2006). Qualitative Research Guidelines Project. Retrieved from http://www.qualres.org/HomeEval-3664.html

Corrado, E, & Moulaison, H. (2014). *Digital preservation for libraries, archives, and museums*. Lanham, Maryland: Rowman & Littlefield.

Coyle, K. (2006). Mass digitization of books. *The Journal of Academic Librarianship*, *32*(6), 641–645.

Creative Commons USA. (n.d.). Frequently Asked Questions. Retrieved January 22, 2021, from https://creativecommonsusa.org/

Dafterdar, M. H. (2011). Toward effective legal regulations and an enabling environment for inalienable Muslim endowments (Awqaf). *Islam and Civilisational Renewal*, *2*(4), 654–668, 766. Retrieved from http://ezproxy.lib.gla.ac.uk/login?url=https://search-proquest com.ezproxy.lib.gla.ac.uk/docview/1315158987?accountid=14540

Dalvi, M. S. (2018). *Fatwa and their development since the early Islamic era* (Order No. 28006656). Available from ProQuest Dissertations & Theses A&I. (2401772862). Retrieved from http://ezproxy.lib.gla.ac.uk/login?url=https://www.proquest.com/docview/2401772862?accou ntid=14540

Elsayed, A. M. (2014). Outsourcing digitization projects in Saudi Arabia: An overview of current practices. *Library Collections, Acquisitions & Technical Services*, *38*(1–2), 37–46. doi:10.1080/14649055.2014.992000

Franca, A. (2021). Transforming library collections in a pandemic: The perspective from Edge Hill University. *Insights the UKSG Journal*, *34*(1), 1–6. doi:10.1629/uksg.536

Gaudiosi, M. M. (1988). The influence of the Islamic law of waqf on the development of the trust in England: The case of Merton College. *University of Pennsylvania Law Review*, *136*(4), 1231–1261. doi:10.2307/3312162

Gerring, J. (2004). What is a case study and what is it good for? *American Political Science Review*, *98*(2), 341–354.

Ghanem, I. (n.d).Nahwa Ehya Dawr Al Waqf fe Al Tanmeya Al Mostakblia نحو احياء دور الوقف في التنمية المستقبلية [*Towards reviving the role of Waqf (endowment) in independent development*]. Egypt. Retrieved from http://www.askzad.com/Bibliographic?service=5&key=PAPRA_Bibliographic_Content&imageName=BK00013285-001

Given, L., Williamson, K. & Scifleet, P. (2017). Qualitative Data Analysis. In: Williamson, K. and Johanson, G. (Eds). *Research Methods: Information, Systems and Contexts* (2nd ed.). Oxford: Chandos.

Goldner, M. R. (2010). Winds of change: libraries and cloud computing. *BIBLIOTHEK Forschung und Praxis*, *34*(3), 270–275.

Goncalves, M. A., & Fox, E. A. (2004). *Streams, structures, spaces, scenarios, and societies (5S): A formal digital library framework and its applications*. (Doctoral dissertation, University Libraries, Virginia Polytechnic Institute and State University).

Gonçalves, M. A., Fox, E. A., & Watson, L. T. (2008). Towards a digital library theory: A formal digital library ontology. *International Journal on Digital Libraries*, *8*(2), 91–114. doi:10.1007/s00799-008-0033-1

Gonçalves, M., Fox, E., Watson, L. and Kipp, N. (2004). Streams, Structures, Spaces, Scenarios, Societies (5s): A Formal Model for Digital Libraries. *ACM Transactions on Information Systems (TOIS)*, *22*(2), 270–312. https://doi.org/10.1145/984321.984325.

Gooding, P. (2017). *Historic Newspapers in the Digital Age: Search All About It!*. London: Routledge.

Green, A. (2008). National libraries: where next?. In *Biblioteka-klucz do sukcesu użytkowników ePublikacje Instytutu Informacji Naukowej i Bibliotekoznawstwa*, (5) 150–158. Instytut Informacji Naukowej i Bibliotekoznawstwa, Uniwersytet Jagielloński.

Green, A. (2011). Notes from a small country. In *Proceedings of the Library and Information Association of New Zealand Aotearoa LIANZA Conference, 2011*, Wellington, New Zealand. Retrieved from https://www.library.wales/fileadmin/fileadmin/docs_gwefan/amdanom_ni/dogfennaeth_gorffo raethol/darlithoedd_ac_erthyglau/dog_gorff_dar_erth_nfasc_11S.pdf

Green, A. H. (1988). The history of libraries in the Arab world: A diffusionist model. *Libraries and Culture*, *23*(4), 454. Retrieved from https://search.proquest.com/docview/1307336884?accountid=142908

Greenstein, D. (2000). Digital Libraries and Their Challenges. *Library Trends*, *49*(2), 290. Retrieved from https://link-gale-com.ezproxy.lib.gla.ac.uk/apps/doc/A72274397/EAIM?u=glasuni&sid=EAIM&xid=bafae392

Griffin, S. (1998). Taking the initiative for digital libraries, *The Electronic Library*, *16*(1), 24–27.

Gvelesiani, I. (2021). The trust and the waqf (comparative analysis). *Trusts & Trustees*, *26*(8–9), 737–745. doi:10.1093/tandt/ttaa075

Haggar, T. (2002). تاريخ المدارس الوقفية في المدينة النبوية [History of Waqf schools in the holy city of Medina]. *The Islamic University Magazine*, 120, 461–506.

Hamadeh, M. (1962). Islamic libraries during the middle ages. Retrieved from ProQuest *Dissertations and Theses Global*. (TM10555)

Hansson, J. (2010). *Libraries and identity: The role of institutional self-image and identity in the emergence of new types of libraries*. Oxford: Chandos.

Helling, J. (2012). *Public libraries and their national policies: International case studies*. Oxford: Chandos.

Helms, L., Henkin, A. B., & Murray, K. (2005). Playing by the rules: Restricted endowment assets in colleges and universities. *Nonprofit Management and Leadership*, *15*(3), 341–356. doi:10.1002/nml.72

Hennigan, P. C. (1999). The birth of a legal institution: The formation of the Waqf in third century A. H. Hanafi legal discourse. Retrieved from ProQuest Dissertations and Theses Global. https://search.proquest.com/docview/304503032?accountid=142908

Heyvaert, M., Hannes, K., Maes, B., & Onghena, P. (2013). Critical appraisal of mixed methods studies. *Journal of Mixed Methods Research*, *7*(4), 302–327. doi:10.1177/1558689813479449

Hmadi, M. (1996). المكتبات الوقفية في المملكة العربية السعودية بين الماضي والحاضر [Waqf libraries in the Kingdom of Saudi Arabia between the past and the present]. King Fahad National Library Magazine. 2, 60–89.

Hudson, A. (2010). Equity and trusts (6th ed.). Routledge.

Hughes, L. M. (2004). *Digitizing collections: Strategic issues for the information manager*. London: Facet Publishing.

Iesei, A. 'Al maktabat Al Waqfya fe al hadara al islamiya fe al asr al abbasi alawal wa dawrha fe tatwer al bahth al elmi' ['Waqf libraries in the Islamic civilization during the first Abbasi era and its role in developing scientific research']. (Master's dissertation. University of Mohamed Boudiaf-Msila, Algeria, 2018.

IFLA, (2010). IFLA Manifesto for digital libraries. Retrieved from https://www.ifla.org/files/assets/digital-libraries/documents/ifla-unesco-digital-libraries-manifesto.pdf

Indrák, M., & Pokorná, L. (2021). Analysis of digital transformation of services in a research library. *Global Knowledge, Memory and Communication*, *70*(1/2), 154–172. doi:10.1108/GKMC-09-2019-0118

Ismail, A. Affandy, H. (2018). Conceptual Paper: Digital Preservation Strategies in Archival Institution. *MATEC Web of Conferences*. 150. 05052. 10.1051/matecconf/201815005052.

Issa, A.O. (2009). *Fundamentals of library and information science*. Ilorin: Ilorin Publisher. http://elibrary.bsu.az/books_rax/N_24.pdf

Johnson, K., & Magusin, E. (2005). *Exploring the digital library: A guide for online teaching and learning*. San Francisco, Calif: Jossey-Bass.

Johnson, R. Onwuegbuzie, A. and Turner.L. 2007. Toward a definition of mixed methods research. *Journal of Mixed Methods Research* 1:112–133.

Kahf, M. (1999). Financing the development of "awqaf" property. *American Journal of Islamic Social Sciences*, *16*(4), 39. Retrieved from http://ezproxy.lib.gla.ac.uk/login?url=https://search.proquest.com/docview/1311899847?accountid=14540

Kahn, R. E., & Cerf, V. G. (1988). *The Digital Library Project, Volume 1: The world of knowbots*. Reston, VA: Corporation for National Research Initiatives. Retrieved from https://doi.org/4263537/2091

Kani-Zabihi, E., Ghinea, G., & Chen, S. Y. (2006). Digital libraries: What do users want? *Online Information Review*, *30*(4), 395–412. https://doi.org/10.1108/14684520610686292

Kbha, S. Akam Al Masajid wa Al Waqf Aliha احكام وقف المساجد والوقف عليها ['Regulations for the Waqf of mosques and the mosques Waqf']. Nablus: Master's thesis, Alnagah National University, 1999). http://search.mandumah.com/Record/583503.

King AbdulAziz Foundation for Research and Archives. (2019).Al Busati " Al Intelaqa Lelmohafza Ala Al Maktabat Al Waqfey Al Raqamya Al Madinya" البساطي" الانطلاقة للمحافظة على المكتبات الوقفية المدينية ["AlBusati" the launch of the preservation of Waqf libraries of Medina]. Retrieved from https://www.darah.org.sa/index.php/media-library/darah-news-menu22/230-2019-12-10-08-46-58

Kirschenbaum, M. (2013). The Textual Condition: Digital Humanities, Born-Digital Archives, and the Future Literary. *Digital Humanities Quarterly 7*(1). http://www.digitalhumanities.org/dhq/vol/7/1/000151/000151.html

Knig, J., Oikonomopoulou, K., & Woolf, G. (2013). *Ancient libraries*. Cambridge: Cambridge University Press.

Kostagiolas, P. (2012). Identifying and categorizing intellectual capital in libraries, ed. by Petros Kostagiolas, In Chandos Information Professional Series, *Managing Intellectual Capital in Libraries*. Oxford: Chandos, pp. 49–85. https://doi.org/10.1016/B978-1-84334-678-4.50003-7.

Koteswara R. M. (2004). Digital libraries: Challenges, opportunities and implications. In *Digital information exchange*. *Annual conference*, pp. 236–243.

Koulouris, A., & Kapidakis, S. (2012). Policy route map for academic libraries' digital content. *Journal of Librarianship and Information Science*, *44*(3), 163–173. doi:10.1177/0961000612444299

Kuny, T., & Cleveland, G. (1998). The digital library: myths and challenges. *IFLA journal*, *24*(2), 107–113.

Kuwait Awqaf Public Foundation, (2017).Modawant Al Ahkam Al Waqf Al Feqheya مدونة احكام الوقف الفقهية[*The recorder of Fiqh laws of Waqf*]. Kuwait Awqaf Public Foundation, Kuwait.

Lagoze, C., Krafft, D., Payette, S., & Jesuroga, S. (2005). What is a digital library anyway, anymore? Beyond search and access in the NSDL. *D-Lib Magazine*, *11*(11). Retrieved from http://dlib.org/dlib/november05/lagoze/11lagoze.html

Lamarre, L. (1998). The digital revolution. *EPRI Journal*, *23*(1), 26. Expanded Academic ASAP.

Lesk, M. (2005). *Understanding digital libraries* (2nd ed.). London, Amsterdam: Elsevier.

Licklider, J. (1965), *Libraries of the Future*. Cambridge: M. I. T. Press.

Lidman, T. (2012). *Libraries and archives: A comparative study*. Oxford: Chandos.

Lieu, A., & Zhao, D. (2019). How much of library digital content is checked out but never used?: A call for refined lending models. *Electronic Library*, *37*(2), 255–262. doi:10.1108/EL-10-2018-0208

Litman, J. (2017). *Digital copyright*. Retrieved from SRN: https://ssrn.com/abstract=2968546

Liu, Y. Q. (2004). Best practices, standards and techniques for digitizing library materials: A snapshot of library digitization practices in the USA. *Online Information Review*, *28*(5), 338–345. Retrieved from https://search.proquest.com/docview/57596541?accountid=142908

Longhurst, R. (2003). Semi-structured interviews and focus groups. *Key methods in geography*, 3, 143–156.

Lowry, C. B. (1991). Information Technologies and the Transformation of Libraries and Librarianship. *The Serials Librarian*, *21*(2–3), 109–132. https://doi.org/10.1300/J123v21n02_11

Lynch, C. (2005). Where do we go from here? The next decade for digital libraries. *D-Lib Magazine*, *11*(7/8). Retrieved from http://www.dlib.org/dlib/july05/lynch/07lynch.html

Maguire, M. & Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-by-Step Guide For Learning and Teaching Scholars. *AISHE-J: The All Ireland Journal of Teaching and Learning in Higher Education*, *9*(3), 3353.

Marwah, H., & Bolz, A. K. (2009). Waqfs and trusts: A comparative study. *Trusts & Trustees*, *15*(10), 811–816. doi:10.1093/tandt/ttp107

Masud, M. (2009). The Significance of Istiftā' in the Fatwā Discourse. *Islamic Studies*, *48*(3), 341-366. http://www.jstor.org/stable/20839171

McCluskey, S., Brooks, J., Turley, E. and King, N. (2015). *The Utility of Template Analysis in Qualitative Psychology Research*. England: Routledge. doi:10.1080/14780887.2014.955224.

Mehaouat, A., & Babbouche, M. (2017). Al Waqf Al Electoroni wa Dawroh fe Jawdat Al Talem Al Sharee الوقف الالكتروني ودوره في جودة التعليم الشرعي [Electronic Waqf and its role in the quality of Islamic education]. Presented at the 7th international conference on the Islamic education and ways to develop it. An-Najah National University, Nablus.

Merriam, S. B. & Tisdell, E. J. (2016). *Qualitative Research: A Guide to Design and Implementation* (4th ed). San Francisco, CA: Jossey-Bass.

Ministry of Culture. (2021).Hayat Al Maktabat Totleq Estrajetha Letatwer Ketaa Al Maktabat fe Al Mamlaka هيئة المكتبات تطلق استراتيجيتها لتطوير قطاع المكتبات في المملكة [Saudi Libraries Commission launch its strategies to develop the libraries sector in the Kingdom]. Retrieved from : https://www.moc.gov.sa/ar/news/44376

Miran, J. (2009). Endowing property and edifying power in a Red Sea port: Waqf, Arab migrant entrepreneurs, and urban authority in Massawa, 1860s-1880s. *World Today*, *42*(2), 151–178. Retrieved from http://ezproxy.lib.gla.ac.uk/login?url=https://search.proquest.com/docview/753828730?accountid=14540

MIT News Office. (2017). MIT to receive $140 million gift. Retrieved from http://news.mit.edu/2017/mit-receive-140-million-unrestricted-gift-0607

Moftie, S. (2003).Al Maktabat Al Waqfya fe Al Madina Al Munawra fe Al Ahd Al Othmani المكتبات الوقفية بالمدينة المنورة في العهد العثماني [Waqf libraries in Medina during the Ottoman era]. *Medina: Medina's Research and Studies Centre Journal*, *4*, 45–82.

Mohsin, M. M. A. (2019), "Waqfintech and Sustainable Socio-Economic Development", *International Journal of Management and Applied Research*, *6*(3) 130-141. https://doi.org/10.18646/2056.63.19-009

Mollah, N., Anwaruzzaman, A. K. M., & Kundu, S. S. (2012). Funding for Development of Infrastructure in The College Libraries in Murshidabad District (wb) and Associated Problems. *Golden Research Thoughts*, *2*(2). https://www.researchgate.net/profile/A_K_M_Anwaruzzaman/publication/311964958_Funding_For_Development_Of_Infrastructure_In_The_CollegeLibraries_In_Murshidabad_District_WB_And_Associated_Problems/links/58654fb308ae6eb871adb4a2/Funding-For-Development-Of-Infrastructure-In-The-CollegeLibraries-In-Murshidabad-District-WB-And-Associated-Problems.pdf

Monopoli, M., 'User-based evaluation of academic digital libraries: case studies, Social Science Information Gateway, Art, Design Architecture & Media Gateway and the Electronic Journals Service of the University of Patras, Greece' (doctoral thesis, City University, London 2005).

Nagaraj, A. (2018). Does copyright affect reuse? evidence from Google books and Wikipedia. *Management Science*, *64*(7), 3091–3107. doi:10.1287/mnsc.2017.276

Nasution, K. S. (2002). Colonial intervention and transformation of Muslim Waqf settlements in urban Penang: The role of the endowments board. *Journal of Muslim Minority Affairs*, *22*(2), 299–315. doi: 10.1080/1360200022000028112.

National Library of Scotland. (2018). Legal deposit – National Library of Scotland. Retrieved from https://www.nls.uk/about-us/what-we-are/legal-deposit

Njie, B., & Asimiran, S. (2014). Case study as a choice in qualitative methodology. *Journal of Research & Method in Education*, *4*(3), 35–40.

Nnenna, O. & Ume, L. (2015). Digitization of Library Resources in Academic Libraries: Challenges and Implications. *IOSR Journal of Mobile Computing & Application*, *2*(2), 2394–42. https://doi.org/10.9790/0050-0223540

Nour, H., (2015). Reconsidering the Waqf: Traditional mechanism of urban regeneration in historic Muslim cities. *ArchNet-IJAR: International Journal of Architectural Research*, *9*(1), 18–30. Retrieved from http://ezproxy.lib.gla.ac.uk/login?url=https://search-proquest-com.ezproxy.lib.gla.ac.uk/docview/1670195276?accountid=14540

Obaidullah, M. (2016). A framework for analysis of Islamic endowment (Waqf) laws. *International Journal of Not-for-Profit Law*, *18*(1).

Odum, H & Jocher, K (1929). *An Introduction to Social Research*. New York: H. Holt.

Orzeata, M. (2014). The Reverse of The Digital Revolution. *International Journal of Communication Research*, *4*(2).

Otlet, P. (1934). *Traité de documentation*. Bruxelas: Mundaneum.
http://user.textus.io/examples/trait%C3%A9-de-documentation.pdf

Pandey, P., & Misra, R. (2014). Digitization of Library Materials in Academic Libraries:
Issues and Challenges. *Journal of Industrial and Intelligent Information*, *2*(2), 136–141.
https://doi.org/10.12720/jiii.2.2.136-141

Pickard, A. (2013). *Research Methods in Information* (2nd ed.). London: Facet.

Qattan, O. (2012). *Al Maktba AlWaqfya* [*The Waqf library*]. Mosul, Iraq: Maktb Alhafez.

Rafiq, M. & Ameen, K. (2013). Digitization in university libraries of Pakistan. *OCLC Systems
and Services*, *29*(1), 37–46. https://doi.org/10.1108/10650751311294546

Ranganathan, S. R. (1931). *The five laws of library science*. Madras, India: Madras Library
Association; London: Edward Goldston.

Riedlmayer, A. J. (2007). Crimes of war, crimes of peace: Destruction of libraries during and
after the Balkan Wars of the 1990s. *Library Trends*, *56*(1), 107–132.

Rikowski, R. (2011). Digital Libraries and Digitisation: An Overview and Critique.
Digitization Perspectives. Educational Futures: Rethinking Theory and Practice 46. Oxford:
Chandos.

Rowlands, I., & Bawden, D. (1999). Digital libraries: a conceptual framework. *Libri*, *49*(4),
192–202.

Rydén, J. (2013). *Legal restrictions and the digital library – is digital access to knowledge
achievable*? IFLA WLIC. Singapore.

Saati, Y. (1996). الوقف وبنية المكتبة العربية [*Waqf, and the structure of Arabic libraries*]. Riyadh:
King Faisal Centre for Research and Islamic Studies.

Sadeq, A. (2002). Waqf, perpetual charity and poverty alleviation. *International Journal of
Social Economics*, *29*(1), 135–151. Retrieved from
https://search.proquest.com/docview/274643738?accountid=142908

Saudi Authority for Intellectual Property. (2022). Brief about SAIP. Retrieved from
https://www.saip.gov.sa/en/about/brief

Saudi Copyright Law. (2003).Official Translated Version by The World Trade Organization.
https://www.wto.org/english/thewto_e/acc_e/sau_e/WTACCSAU56_LEG_4.pdf

إنشاء الهيئة السعودية للملكية الفكرية يهدف لرفع مستوى المملكة في مؤشر الابتكار .Saudi Press Agency. (2017)
العالمي ودعم الاقتصاد المعرفي [Establishing the Saudi Authority for Intellectual Property
aims to raise the Kingdom's level in the Global Innovation Index and support the
knowledge economy].

Scharf, N. (2017). Creative Commons-ense? An analysis of tensions between copyright law and Creative Commons. *Journal of Intellectual Property Law & Practice*, *12*(5), 376-383.

Seadle, M., & Greifeneder, E. (2007). Defining a digital library. *Library Hi Tech*, *25*(2), 169–173.

Seeds, R. (2002) Impact of a digital archive (JSTOR) on print collection use, *Collection Building*, *21*(3) 120–122. https://doi.org/10.1108/01604950210434551

Semertzaki, E. (2011). *Special libraries as knowledge management centres*. Burlington: Elsevier Science.

Sharma, R. K., & Vishwanathan, K. R. (2001). Digital libraries: Development and challenges. *Library Review*, *50*(1), 10–16. doi:10.1108/00242530110363190

Shimray, S & Ramaiah,C. (2018). *Digital Preservation Strategies: An Overview*.

Shukla, B. (2018). The Google books case: An insight into the emerging trends in digital copyright law. *Cognitio*, *2018*(1), 1–6. doi:10.5281/zenodo.1689901

Siddiqui, M. A. (1995). Management of libraries in Saudi Arabia: Practices and constraints. *Library Management*, *16*(6), 24–32. doi:10.1108/01435129510091829

Siddiqui, M. A. (1997). The use of information technology in academic libraries in Saudi Arabia. *Journal of Librarianship and Information Science*, *29*(4), 195–203. doi:10.1177/096100069702900404

Soergel, D. (2002). A framework for digital library research: Broadening the vision. *D-lib magazine*, *8*(12), 1–7. http://www.dlib.org/dlib/december02/soergel/12soergel.html

Stibbard, P., David Russell, Q. C., & Bromley, B. (2012). Understanding the Waqf in the world of the trust. *Trusts and Trustees*, *18*(8), 785–810. doi: 10.1093/tandt/tts087

Suthersanen, U. (2007). Creative Commons—the other way? *Learned publishing*, *20*(1), 59-68.

Taha Dulaymi, S., Marghalani, M., McDonald, A., & Tait, J. (2004). The growth of electronic journals in academic libraries in Saudi Arabia. *Library Management*, *25*(4/5), 190–198. doi:10.1108/01435120410533774

Tashakkori, A. Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches* (Vol. 46). London: Sage.

Tashkandy, A. S. (1974). A descriptive catalogue of the historical collection of the scientific manuscripts at the library of Arif Hikmat in Medina, Saudi Arabia. Retrieved from ProQuest Dissertations and Theses Global. (7419521)

Tellis, W. (1997). Application of a case study methodology. *The Qualitative Report*, *3*(3), 1–19.

Terras M.M. (2011) The Rise of Digitization. In: Rikowski R. (eds) Digitisation Perspectives. Educational Futures Rethinking Theory and Practice, vol 46. SensePublishers. https://doi.org/10.1007/978-94-6091-299-3_1

The British Library. (2011). The British Library and Google to make 250,000 books available to all [Press release]. Retrieved from https://www.bl.uk/press-releases/2011/june/the-british-library-and-google-to-make-250000-books-available-to-all

The Digital Library Federation. (n.d.). Retrieved from https://www.diglib.org/about/.

The Library of Alharam Al Makkey A Cultural Hub that Aims to Digitize. (2021). *Alyaum news*. Retrieved from : shorturl.at/lqyR9

The United States Copyright Office. (2016). Copyright Law of the United States and Related Laws Contained in Title 17 of the United States Code. Retrieved from https://www.copyright.gov/title17/title17.pdf

Toemoe, T. Yeldham, P. & Milosevic, A. (2017). *Touch the edge – is data "tangible property" for the purpose of your insurance policy*. King & Wood Mallesons. https://www.kwm.com/en/knowledge/insights/data-tangible-property-insurance-policy-damage-loss-cover-20170327

Too, Y. (2010). *The idea of the library in the ancient world*. Oxford: Oxford University Press. doi: 10.1093/acprof:oso/9780199577804.001.0001

Trivedi, M. (2010). Digital libraries: functionality, usability, and accessibility. *Library Philosophy and Practice* (e-journal), 381.

UCLA Digital Library Program (DLP). (n.d.). UCLA Digital Library Program (DLP). Retrieved from http://digital2.library.ucla.edu/mission.html

UK Intellectual Property Office (IPO) (2014). https://www.gov.uk/guidance/exceptions-to-copyright#text-and-data-mining-for-non-commercial-research

UNESCO, IFLA, and ICA (2002). Guidelines for Digitization Projects for collections and holdings in the public domain, particularly those held by libraries and archives. Retrieved from https://www.ifap.ru/library/book126a.pdf

University of Edinburgh. (2017). *Endowment Policy*. Retrieved July 30, 2018, from https://www.ed.ac.uk/files/atoms/files/endowment_policy.pdf

University of Manchester Library. (n.d.). General public. Retrieved 1 December 2018 from? Weise, F. (2004). Being there: The library as place. *Journal of the Medical Library Association*, *92*(1), 6–13.

Weiss, A (2013) A Review of "Theoretical Foundations for Digital Libraries: The 5S (Societies, Scenarios, Spaces, Structures, Streams) Approach", *Cataloguing & Classification Quarterly*, *51*(7), 839–841, DOI: 10.1080/01639374.2013.813614

Wells, H. G. (1938). *The world brain*. Garden City, NY: Doubleday, Doran & Co.

Worrall, A. (2014). The roles of digital libraries as boundary objects within and across social and information worlds (PhD). Retrieved from ProQuest Dissertations & Theses Global.

Wu, T. H. (2018). From Waqf, ancestor worship to the rise of the global trust: A history of the use of the trust as a vehicle for wealth transfer in Singapore. *Iowa Law Review*, *103*(5), 2263+. Retrieved from https://link.gale.com/apps/doc/A553627651/AONE?u=glasuni&sid=bookmark-AONE&xid=f4a7d4d4

Xie, I., & Matusiak, K. (2016). *Discover digital libraries: Theory and practice*. Amsterdam, Netherlands: Elsevier.

Yates, J. (1989). *Control through communication*. Baltimore: Johns Hopkins University Press.