# THE CONTRIBUTION OF THEORY AND RESEARCH TO THE TRANSFORMATION OF LIBRARIES

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#### SERHAN A. AL TAWALBEH

Department of Library& Information, College of Art, Al-Hussein Bin Talal University (Ma'an, Jordan), e-mail: satwlbh@yahoo.com, Sarhan.A.Tawalbeh@ahu.edu.jo, ORCID 0000-0003-1406-0955

#### RAID J. SULEIMAN

Department of Library& Information, College of Art, Al-Hussein Bin Talal University (Ma'an, Jordan), e-mail: raidjameelsuleiman@gmail.com, Raid.j.suleiman@ahu.edu.jo, ORCID 0000-0001-6247-826X

#### MUSTAFA H. AHMED

Department of Library& Information, College of Art, Al-Hussein Bin Talal University (Ma'an, Jordan), e-mail: mustafahamdi@hotmail.com, Mustafa@ahu.edu.jo, ORCID 0000-0001-9289-0984

# Developments of Teaching Library, Information and Digital Archiving Sciences in Jordan: Al-Hussein Bin Talal University as a Case Study

Objective. The study sought to examine the progress of teaching library and information science in several Jordanian universities from their establishment till the present (1921-2022). The study aimed to provide a comprehensive analysis of the development and challenges faced by library and information science programs in Jordan, specifically focusing on the Bachelor's and Master's Degree programs offered by the Department of Library and Information Technology (DLIT) at Al-Hussein Bin Talal University. Methods. The study employed a descriptive and content analysis methodology to examine the initial stages of establishing the first professional program in teaching library and information science in the late 1970s. The analysis focused on developing the newly created master's program in Information Management and Digital Archiving within the Department of Library and Information Technology in the Faculty of Arts at Al-Hussein Bin Talal University. Results. That academic programs of the four universities lack collaboration and synchronization in enhancing their curricula and teaching methodologies. Currently, there is a lack of sufficient, contemporary, and thorough research or study on the significance of this problem within the higher education system. There is a requirement for greater collaboration and organization among faculty members in Jordan's four universities to evaluate the current situation and propose more efficient approaches to improve teaching in libraries, information, documentation, and digital archiving. In the fields of library, information, and digital archiving the sciences in Jordan are always developing and improving. The Department of Library and Information Technology at Al-Hussein Bin Talal University is experiencing notable progress in its programs to align with the era of information technology. Conclusions. The primary objective of every academic program should be to bridge the disparity between the requirements and competencies of library professionals while considering the pertinent and up-to-date advancements in information technology, telecommunications, and digital transformation.

Keywords: library science; Jordan; library science program; master's degree; Al Hussein Bin Talal University

#### Introduction

The instruction of library and information science programs at the university level commenced in 1887, with the establishment of the inaugural university college program by Melville Dewey at Columbia University in the United States of America. The instruction of library science programs in Europe commenced around the early 20th century, mostly in nations like France and Germany. However, in the United Kingdom, the inaugural program was founded in 1951. A Bachelor's degree program was introduced and taught in Australia during the early 1970s.

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Library science in Scandinavia was not associated with academia or universities until the early 1960s.

In contrast, Eastern countries began teaching library science in universities following World War II (Sedhum, 2014). The initiation of library and information education in Arab countries may be traced back to the establishment of the Library and Documentation Department at Cairo University in Egypt in 1951. Library science programs were initiated at universities in Sudan in 1966, while in Saudi Arabia, education commenced at the Institute of Management in 1968 and was subsequently shifted to universities. The introduction of library science programs in Iraqi institutions began in 1968, followed by Morocco in 1974, Algeria in 1975, Libya in 1976, Tunisia in 1979, and Oman in 1987 (Gerarmi, 2008).

The origins of librarianship education and training in Jordan are quite recent. From a historical perspective, it can be traced back to the mid-1950s. In 1956, the Ministry of Education initiated the first instance of sending a Jordanian individual to pursue studies in library science in Great Britain (Kent, Lancour, & Daily, 1975). The field of library and information science has been taught in Jordan for almost 40 years, beginning with the establishment of the first professional diploma program at the University of Jordan in 1977/1978. The library and information sciences departments were sequentially established at Jordanian universities. The University of Jordan initiated the program in 1977, followed by Al-Balqa Applied University in 1999, Al-Zarka Private University, and Philadelphia University in 2000. The most recent addition to this list is the program of Library and information technology at Al-Hussein Bin Talal University, established in 2006.

Study Significance. The Department of Library and Information Technology at Al-Hussein Bin Talal University introduced a bachelor's degree program over 17 years ago. Recently, the department added a master's degree program in Information Management and Digital Archiving, completing the range of teaching in library and information and digital archiving at both the bachelor and master levels. Researchers deemed it opportune to undertake a comprehensive revision by conducting an extensive descriptive study to assess the level of success achieved by these two programs thus far. They also aim to identify and address any deficiencies or inadequacies that may exist in the current curriculum. The findings of this study will assist the Department of Library and Information Technology at Al-Hussein Bin Talal University in developing a well-defined future plan. This is particularly important in response to the rapid advancements in information technologies, telecommunications, and digital content. The study aims to analyze the achievements of various academic departments in library and information science and digital archiving at the national level. This analysis will enable the researchers to modify the curriculum, suggesting new courses and removing outdated and conventional ones that have been taught for an extended period. This presents a valuable opportunity to enhance the requirements by incorporating additional fundamental, elective, and mandatory courses to adapt to the emerging technologies of digital transformation. It also aims to fulfill the needs of the employment market, particularly with regard to future professions.

**Study Questions.** The study will comprehensively assess the current state of DLIT in the Faculty of Arts at Al Hussein Bin Talal University, examining all its academic dimensions, such as its strategies, courses, syllabus, and future goals. This will be achieved by addressing the following two research inquiries:

- 1. What is the current situation and status of teaching library and information science in both public and private Jordanian universities?
- 2. What is the status and current situation of the Library and Information Science Department (DLIT) at Al-Hussein Bin Talal University as compared to other programs nationwide, especially regarding future ambitions and aspirations?

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#### The study aims at:

- 1. Tracing the historical development of teaching library and information science programs in Jordan since the foundation until this time (1921–2022).
- 2. Describing the status and current situation of the Library and Information Science Department (DLIT) at Al-Hussein Bin Talal University, especially the future ambitions and aspirations.

#### **Methods**

This study employed the method of descriptive content analysis to examine the academic programs in the Department of Library and Information Technology at Al Hussein Bin Talal University. The purpose was to describe and analyze the advancements in teaching library, information, and digital archiving sciences in Jordan. The information and data were gathered through a content analysis of professional literature pertaining to this topic in Jordan. Additionally, the department's reports, plans for the previous and current year, the department's curriculum, and interviews with the current and former academic department heads were utilized.

The gathered data and information were examined and classified to assess the strengths and weaknesses, as well as the opportunities and dangers, of the existing academic professional programs at the undergraduate and graduate levels.

**Literature Review.** In general, there is a promising amount of published and unpublished studies on the advancements of professional teaching in library, information, documentation, and digital archiving sciences in various Arab countries and globally. However, it is surprising that the number of studies conducted in Jordan is limited.

The study (Nahlani et al., 2024) is aimed to diagnose the efforts of the government in higher education and the involvement of libraries in promoting teaching, research, and extension activities by conducting a comparative analysis of library funding and resource management in Indian higher education institutions. One of the most important findings of the study was that the observed source of funding significantly affected various aspects of university libraries in India. This includes the distribution of knowledge resources, maintenance of library amenities, accessibility to human resources, and provision of library amenities. It is important to involve university librarians in the strategic planning of a higher education institution.

The study (Fihel, 2021) examines the legislation of Ukraine in the framework of library reform. It is noted that in the presence of all changes and additions, the wording of the Law of Ukraine "On Libraries and Library Affairs" of 2021 regulates the activities of mostly public libraries. The peculiarities of the activity of libraries of higher educational institutions (HEI) are not reflected in the law (Nikolaienko, 2022). The article examines the operations of a university library amid transformational changes, particularly due to the merging of book collections from four higher education institutions and the challenges posed by Russia's war against Ukraine. The study involved a review of publications focused on the practical application of remote work methods in modern university libraries. It also summarized the experiences of the Scientific Library of the State Biotechnology University (SL SBTU) in reorganizing its work during wartime. The study found that SL SBTU's primary response to these challenges was centered around theoretical reasoning, practical experimentation, flexibility, and timely information support for scientific and educational activities during remote work.

The authors of the paper titled "What is the purpose of a school of library and information science in the 21st century?" Myburgh S. and Tammaro A. (2013) emphasized that developing technology is playing a significant role in shaping the future of libraries. A comprehensive

assessment of evolving information requirements should be conducted to account for the conventional and growing responsibilities of information professionals in light of evolving work settings and societal expectations. They also examined various aspects related to the goals of the school of library and information sciences. These included the evolving responsibilities of information workers and how to adequately train them, the potential for globalizing education in digital librarianship considering the current state and scope of digital libraries, the conflict between technology and societal objectives, the shared intentions and principles among libraries, galleries, archives, and museums as preservers of cultural heritage, the promotion of fairness and global access to resources, and the potential for professional transformation.

Younis conducted a study on the scarcity of skilled workers and the educational aspects of becoming a librarian in Jordan. The primary objective of this study was to identify the fundamental elements for future research endeavors focused on forecasting and providing a precise assessment of the professional workforce requirements for libraries in Jordan. The author critically examined the training programs provided by several institutions in Jordan, with a particular focus on the short-term courses offered by the Jordan Library Association, which subsequently transformed into the Jordan Library and Information Association (Younis, 1982).

Mustafa did two research projects on a topic that was previously explored by Yonis (1982). The papers "Factors Affecting Demand for Manpower" and "Current Library Situation in Jordan and Projection of Demand" addressed manpower planning in librarianship in Jordan (Mustafa, 1983). The author analyzed the key characteristics and aspects that must be considered while planning the staffing requirements of libraries in Jordan. This analysis applies to both professional and subprofessional positions in various types of libraries. Bouazza and Nimer conducted comparative research on library education in Tunisia and Jordan. They provided a concise overview and analysis of the current status of library education development in both nations. They attempted to identify the issues affecting the process to determine if library education in countries with comparable cultures and economic structures develops similarly and encounters the same challenges. The authors of the study asserted that cultural and economic issues have an impact on the progress of education for librarianship in Jordan and Tunisia. Based on this observation, it appears that library education in countries with comparable cultures and economic systems develops similarly and encounters the same challenges (Bouazza & Nimer, 1986).

Younis outlined the three distinct classifications of library education in Jordan during that period, the period from 1960 to 1991. He concluded that libraries in Jordan are currently undergoing a period of transition. They are transitioning away from old techniques in librarianship and embracing the era of modern information science (Younis, 1992).

Elayyan conducted a survey study to investigate the educational practices of teaching library and information science at the undergraduate level in Jordan. He discovered that there were a total of seven programs available in the country that offered education in libraries and information sciences. The nomenclature of these programs differed across different universities. Regrettably, these programs were associated with distinct colleges, including arts, public management, and educational sciences. Elayyan stated that all of these programs were experiencing various academic and administrative challenges. However, there are significant ongoing efforts and initiatives to improve and strengthen these programs (Elayyan, 2008).

Younis examined the necessary competencies in the industry and assessed the extent to which the existing academic programs' curricula fulfilled the students' needs. To stay updated on advancements in information technology, communication, and digital transformation, he made an effort to focus on current concerns, developing technologies, and new concepts in the area (Younis, 2014).

Abed Al-Razaq and Klaib assessed the necessity of enhancing the curricula for teaching library and information science in Jordanian universities. This evaluation took into account the evolving job demands and perspectives of both faculty members and graduates. They adopted a descriptive methodology, using a questionnaire they had created. The study demonstrated a significant level of respondents' endorsement of the prompt modifications to the work prerequisites. One of the shortcomings of the curriculum's plans is the lack of enthusiasm for non-Arabic subjects. The study also indicated that there were no notable disparities in the participants' responses based on gender, personal characteristics, occupation, or the type of university (public or private) about their motivations for development, personal growth, and administrative skills. (Abed Al-Razaq & Klaib, 2018).

A study undertaken by Ahmad, Sulaiman, and Tawalbeh focused on the accreditation standards for master's degree programs in Jordan. The Jordanian criteria for the Masters level in Library and Information Science were analyzed through a comparison with the ALA criteria for accreditation. The study determined that the local Jordanian requirements were universally applicable to all postgraduate studies in various scientific domains. Consequently, no distinct criteria were specifically implemented for Master's Degree programs in library and information science in Jordan. Regrettably, Jordanians are regulated by the Council of the Higher Education Accreditation and Quality Assurance Commission, which is not directly associated with the profession. As a result, the local standards lack numerous essential requirements for library and information science knowledge as a field of study and a profession (Ahmad, M. Sulaiman, R.& Al Tawalbeh, S., 2016).

Shawabkeh conducted a study to assess the degree to which the local standards of the Master's Degree program in library and information science at Jordan University align with the five ALA Standards for Accreditation: systematic planning, curriculum, faculty, students, administration, finance, and resources. The study's findings indicated that only the third criterion (faculty) met the ALA requirements of accreditation, while the other four requirements (systematic planning, curriculum, students, administration, finance, and resources) were only minimally implemented. The study proposed an increase in the focus on evaluating the systematic planning criteria, particularly those about vision, mission, objectives, and student learning outcomes (Shawabkeh, 2018).

Suleiman's work focuses on investigating the definition of school library education and its practical implementation in Jordanian school libraries. Suleiman's research demonstrates that several obstacles are preventing Jordanian school libraries from achieving their objectives. These include the lack of a dedicated curriculum, official activities for developing library skills, programs that align with other curricula, and a shortage of specialized courses for library education (Suleiman, 2016).

#### **Results and Discussion**

History and Development of Department of Library and Information Technology at Al Hussein Bin Talal University. Al Hussein Bin Talal University (ahu.edu.jo) was established in 1999 in Ma'an, a city located 210 kilometers south of Jordan's capital, Amman. AHU is a comprehensive higher education institution that has seen significant growth in recent years. The university has expanded its academic programs to include nine colleges and two deans, offering bachelor's degree programs in various fields. The Department of Library and Information Technology at the Faculty of Arts at Al Hussein Bin Talal University was established around 16 years ago. This study aims to provide a detailed overview of the department's progress in terms of

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its administrative and academic aspects, including plans, programs, curriculum, and future objectives.

The Department of Library and Information Technology at Al-Hussein Bin Talal University acknowledges the importance of developing comprehensive undergraduate programs in library and information technology, as well as a master's degree program in Information Management and Digital Archiving, in response to the rapid advancements in the field. The university conducted a study on the current state of library, information, and digital archiving sciences in the country, leading to the creation of a bachelor's degree program in library and information technology in 2006, and a master's degree program in Information Management and Digital Archiving in 2010, the first of its kind in the country. Al-Hussein Bin Talal University is currently working on establishing a doctoral program in collaboration with prestigious international countries and United universities in European the States. (https://www.ahu.edu.jo/CollDeptAr.aspx?type=1&id=478)

The History of Library and Information Science Programs in Jordan. The teaching of library sciences in Jordan commenced in 1956 when the Ministry of Education (MOE) granted the late Mahmoud Al-Akhras a scholarship to the United Kingdom, funded by UNESCO. The purpose of the award was to enable him to study librarianship and receive training to establish libraries in Jordan, starting in 1958. Mahmoud Al-Akhrasis is the trailblazer of the movement to enhance librarianship in Jordan, particularly in the context of school libraries. The Ministry formed the Department of Librarianship to oversee the progress of library development in schools. This department was under the supervision of Al-Akharas (Guendel, 1995).

Library science education in Jordan commenced in 1958 with the introduction of brief courses in library science conducted by professionals from UNESCO (Bouazza & Nimer, 1986). In terms of academia, the field has undergone various stages, beginning with the Community Colleges Middle Diploma, a two-year post-secondary institution that still exists today. This was followed by a bachelor's degree and then a master's degree, which was introduced at the University of Jordan in 2007 (https://educational.ju.edu.jo/Departments).

The University of Jordan, founded in 1962 in Amman, Jordan's capital, was the first university in the city. The University of Jordan introduced its library and information science program in the academic year of 1977/1978, offering a higher diploma degree in the field. The department of library and information science established a B.A. program in 2006/2007, followed by the introduction of a Master's Degree program in library and information science in the academic year 2007/2008 (https://educational.ju.edu.jo/Departments).

Al-Hussein Bin Talal University introduced a bachelor's degree program in library and information technology in 2006. In 2018, the university launched a new master's degree program in information management and digital archiving (Ahmed, Sulaiman, & Al Tawalbe, 2015). The name of the university is Al Balqa Applied University. The department was founded in the Faculty of Planning and Management during the 1999-2000 academic year. It was later relocated to the Faculty of Salt College of Human Sciences in the 2011-2012 academic year (L.S. Department Al-Balqa University). There were three other departments associated with different institutions. The university consists of three departments: the Libraries and Information Science Department in the Faculty of Alia College-Amman, the Library Department in the Faculty of Irbid College, and the Faculty of Al-Karak. The Department of Library and Information Science was established by Zarqa University in 2000/2001 (https://www.ahu.edu.jo/EN-Article-12558).

Table 1

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Library Science	e Programs curre	ently taught at .	Jordanian i	universities

No.	University	Degrees				
		Middle	Higher	Bachelor	Masters	Ph.D
		Diploma	Diploma	and name	and name	
		and name of	and name	of program	of	
		program	of program		program	
1	Universit	Universit	Universit	Universit	Universit	Universit
	y of	y of	y of	y of	y of	y of
	Jordan	Jordan	Jordan	Jordan	Jordan	Jordan
2	Al-Balqa	Al-Balqa	Al-Balqa	Al-Balqa	Al-	Al-
	Applied	Applied	Applied	Applied	Balqa	Balqa
	Science	Science	Science	Science	Applied	Applied
					Science	Science
3	Al-Hussein	Al-Hussein	Al-Hussein	Al-Hussein	Al-Hussein	Al-Hussein
	Bin Talal	Bin Talal	Bin Talal	Bin Talal	Bin Talal	Bin Talal
	University	University	University	University	University	University
4	Al-Zark	Al-Zark	Al-Zark	Al-Zark	Al-Zark	Al-Zark
	Private	Private	Private	Private	Private	Private
	University	University	University	University	University	University

Table No. 1 shows that the Master's program is only available at the University of Jordan and Al-Hussein Bin Talal University. However, there is a difference in terms of specialization. Al-Hussein University focuses on information management and digital archiving. At the bachelor's level, Table No. 1 indicates that it is available at all universities. Al-Hussein University differs from the rest in that it developed the program to be an overlapping specialization between library science and information technology.

Development of Department of Library and Information technology at Al-Hussein Bin Talal University. The Library and Information Technology Department was established at Al-Hussein Bin Talal University in 2006 to meet the growing demand for professional librarians in Jordan. It functions as a professional department within the Faculty of Arts. Since the academic year 2006–2007, the department has offered a bachelor's degree program in library and information technology. The enrollment figures for the academic year 2010/2011 are not available. Currently, the student body totals three hundred and fifty individuals. The undergraduate enrollment for the 2019/2020 academic year is twenty individuals. The decline in high school graduation rates and the entrance of a large number of graduates into the job market have created a shortage of job opportunities, leading students to explore other fields of study (Ahmed, Sulaiman, & Al Tawalbe, 2015).

Consequently, the department has developed a Master's Degree curriculum focusing on innovative subjects such as digital archiving, called the Master's Degree in Information Management and Digital Archiving. Currently, there are 22 students enrolled in this program. This document is the annual report for the year 2019 (North Carolina State University Libraries, n.d.).

**Library and Information Technology Department Mission.** The Department of Al-Hussein Bin Talal University produces professional librarians who play a crucial leadership role in the management, implementation, and promotion of the preservation, organization, and efficient utilization of society's documented knowledge and ideas. Currently, libraries in Central

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Asia are trying to adapt to the digital age by integrating technology, digitizing collections, and enhancing their role as network centers. This will achieve professional development for librarians (Bobojonova et al., 2024). Therefore, it is necessary to offer academic programs in universities in order to create cadres that keep pace with the digital age in the field of information and libraries, and this is what Al-Hussein Bin Talal University has done.

#### **Objectives of the Library and Information Technology Department:**

- 1. To offer adaptable and concise educational programs to graduate specialist professional librarians in the domains of libraries, information, documentation, and digital archiving.
- 2. To contribute to the dissemination of knowledge in the disciplines of library science, information management, documentation, and digital archiving through teaching, training activities, and supporting scientific research.
- 3. To strengthen the library's function as a social and educational institution dedicated to cultivating knowledgeable individuals.
- 4. To develop qualified information specialists capable of handling novel information and evolving technology in libraries and information centers.
- 5. To educating and improve the understanding of library and information ethics among information professionals.
- 6. Our goal is to supply highly skilled information professionals who can fulfill the specific demands of the local market in library, information, documentation, and digital archiving. Additionally, we aim to cater to the needs of other Arab countries as well.
- 7. To assist in attaining the primary objectives of the institution, which include education and instruction, scientific investigation, and community outreach.

**Library and Information Technology Department Faculty Members.** Table 2 shows that at Al-Hussein Bin Talal University, there are currently (7) faculty members in the Department of Library and Information Science, with (6) of them holding PhD degrees in Library and Information Sciences (Al-Hussein Bin Talal University, n.d.).

Table 2

# The number of faculty members at Al-Hussein Bin Talal University and their academic degrees

G	Gender	Deg	ree	Academic Position			
Male	Female	PhD	ML S	Prof	Associate Prof.	Assistant Prof.	Lecturer
5	2	6	1	1	3	2	1

The department met the national accreditation standards for the bachelor's and master's degree programs and was granted accreditation by the Accreditation and Quality Assurance Commission for Higher Education Institutions in Jordan (Richmond Public Library, n.d.).

Library and Information Technology Department Teaching Assistant Facilities. The department has a computer laboratory equipped with 24 computers, each installed with software applications for information management systems and other library amenities. The practical area is a crucial and essential component of integrating with the theoretical aspect. Furthermore, the department and the university library collaborate extensively, serving as the primary training and practical experience hub for students enrolled in both undergraduate and graduate programs. The university library houses a sufficient, extensive, and varied assortment of information resources, encompassing both conventional printed and non-printed materials, as well as a range of full-text electronic databases that cover the key subjects required by the university community to fulfill their research and reading needs. Students have convenient remote access to the library collection (https://www.ahu.edu.jo/TheLibraryEN.aspx).

An agreement has been finalized and signed with the Jordanian National Library (JNL) for the Master's Degree program in information management and digital archiving. The agreement specifically outlines the arrangement to conduct the program in Amman. This agreement was made between AHU and JNL in 2019 (Jordan Media Institute, 2019). The National Library has the duty of acquiring, arranging, preserving, retrieving, and distributing the intellectual works and cultural heritage of the entire nation. The National Library is commonly recognized as the epitome of the nation's collective recollection. Therefore, it is an ideal location for training students pursuing a master's degree in various subjects, such as Integrated Digital Archiving Systems (IDAS) and Integrated Library Systems (ILS). The National Library is equipped with the essential apparatus required for carrying out preservation procedures, such as robust, versatile specialized scanners and other technical amenities (Suleiman & Ahmed, 2019).

Scientific Degrees Offered by the Library and Information Technology Department. The department offers the following academic degrees:

- 1. Undergraduate degree programs. The department offers an integrated program that awards a bachelor's degree in library science/information technology. The program was provided in collaboration with the Information Technology Department but was discontinued in 2012.
- **2. Bachelor in Library and Information Science.** This program began in 2009 and is still ongoing. In 2013, the program underwent restructuring to adapt to the dynamic nature of libraries and information technologies, as well as the emergence of the digital world. This restructuring took place after the completion of the bachelor's degree in library science and information technology. Table 3 shows the structure of this bachelor's degree program, which consists of a total of 132 credit hours. Of these, 99 credit hours are dedicated to mandatory requirements, while the remaining 33 credit hours are allocated for optional or elective courses. The university requires 12 mandatory credit hours, with the option to take an additional 15 credits as electives. The college has 15 mandatory requirements and six optional electives. The department's mandatory requirements include 69 credit hours and 12 optional electives. Additionally, students can take 3 credit hours from any other specialization.

Bachelor program credit hours

Requirements	Credit hours		
	Mandatory	Optional	Tota
			l
University Requirements	12	15	27
College Requirements	15	6	21
Department requirements	69	12	81

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Table 3

Free requirements	3	0	3
Total	99	33	132

The mandatory and optional or elective requirements as shown in (Table 4) demonstrate diversity and comprehensiveness in the subjects taught to undergraduate students, including information science, libraries, information technology, and management.

Table 4

#### **BA** courses and credit hours

Course name (Mandatory Credit	Course name (Optional
Hours)	Credit Hours)
Introduction to Library Science and	Special Libraries and
Information	Information Centers
Information Technology in Libraries	Libraries and Society
Information Resources	Reference Services in
	Humanities
Introduction to Cataloging and	Periodicals and Their Control
Classification	
Information Services	Manuscripts
Descriptive and Subject Cataloging	Statistics in Libraries
Classification (1)(2)	Libraries and Information
	Centers Management
Development of Library Collections	Public Libraries
Scientific Research in Library Science	Legislation and Libraries
and Information	
Practical Training	School Libraries
Graduation Project	Academic Libraries
English Text in Library Science	Knowledge Economy
Bibliography, Indexing, and Abstracting	
Information Marketing	Bibliometrics
Information Storage and Retrieval	Reference Resources and
	Their Services

Internet and E-Publishing	New Trends in Library Science
Automated Cataloging  Computerized Systems in Libraries and Information Centers	Communication Skills in Libraries and Information Centers
Retrieval of Digital Information in Humanities  Virtual Libraries	

- 1. Graduate Program. Al-Hussein Bin Talal University was distinctive in its provision of this program, including the novel concentration in information management and digital archiving, which was the first of its type in the nation. The program emphasized cutting-edge technologies such as digital information management, digital archiving, and digital knowledge. The program commenced in 2018 as an instructional procedure and remains ongoing at present. The Master's Degree program has a total of 33 credit hours, as shown in (Table 5). There are two options available, allowing students to exercise their autonomy in selecting the path they wish to pursue:
- 1. The thesis path, which consists of 15 mandatory credit hours, 9 optional elective credit hours, and 9 credit hours for the thesis.
- 2. The Comprehensive Exam path, which consists of 24 mandatory credit hours, 9 optional elective credit hours, and a comprehensive exam.

Table 5

#### Master's degree program credit hours

		Credit hours				
Requirements	Thesis path	Mandato ry	Optio nal	Master Thesis	Total	
Course	Comprehensive	15	9	9	33	
	path	24	9	0		

Table 6 indicates that the compulsory courses offered focus on the technical aspect, archiving systems, and digital content management systems, which are requirements of the current era, the era of the digital environment.

Table 6

#### Master's degree program mandatory courses

•	Mandatory Courses (Comprehensive	credit
Path)	Path)	hours
Storage and Retrieval of	Storage and Retrieval of Records	3
Records		
Asset Management and	Assets Management and Digital	3
Digital		
Reservation	Document Archiving and Digitization	3
Document Archiving and	Digital Record Reservation Systems	3
Digitization	-	
Digital Record Reservation	Research Methods	3
Systems		
Research Methods	Bibliographic Description of Archival	3
	Resources	
	Metadata	3
	Digital Reservation	3
	Data Analysis and Representation	3

Table 7 indicates the elective courses offered, which broaden the students' horizons and provide other aspects related to information, libraries, and archiving, such as digital publishing and preservation, digital libraries, and information management technology.

Table7

#### Master's degree optional course: Theses and comprehensive path

Course Name	credit hours
Principles and Applications of Record Management	3
Creating, Managing, and Reserving Digital Resources	3
Records and Physical Evidence	3
Management of Documents and Archiving Institutions	3
Digital Publishing and Preservation	3

Records and Preservation	3
Preservation, Access, and Archive Service	3
Information and Records Security	3
Information Management Technology	3
Digital Libraries	3
Directed Readings	3
Conservation of Digital Heritage	3

Library and Information Technology Department Future Aspirations. The Higher Education Accreditation and Quality Assurance Commission's Council has just endorsed a novel approach to accrediting academic programs, which relies on qualitative data. This system adapts to the continuous changes brought about by the rapid advancements in information technology, telecommunications, and digital transformation. The LISD has already been implementing essential modifications in anticipation of forthcoming advancements. We have already commenced the procedure and acquired governmental authorizations to change the designation of the Bachelor degree program from Library and Information Technology to "Digital Content Management." The revised curriculum will encompass courses in library science, information management, and digital archiving. Students will have the opportunity to focus on a primary area of study and pursue a secondary concentration within the discipline. Furthermore, the new curriculum will function as a supplementary and essential component of the Master's Degree Program in Information Management and Digital Archiving at Al Hussein Bin Talal University for incoming students. The second step involves further improving the existing Master Degree Program in Information Management and Digital Archiving to align with recent advancements and meet the global standards in teaching library, information, and archive studies. The department's most ambitious step is the third one, in which it is actively pursuing the development of a doctoral degree program in digital assets and multimedia management in collaboration with European, Western, and American university departments specializing in this field. The planned PhD program seeks to furnish students with a diverse range of strategic, technical, and practical skills, enabling them to assume positions of guidance and authority, not just in library science but also in information and archival studies. The broadcast and publishing sectors are progressively embracing novel technical platforms, such as tablets and mobile devices. Archive centers and libraries are increasingly dependent on digital assets, and an increasing number of cultural heritage institutions are converting their archives into digital format to enhance accessibility and ensure long-term availability for future generations. Businesses depend on digital media and content to create, operate, and oversee their future databases. Researchers, managers, and data scientists handle substantial amounts of digital data, conducting experiments, simulations, and visualizations. Employers seek proficient people with specialized knowledge to oversee their important forthcoming digital media resources for these and other motives (Suleiman, & Hamdi, 2019).

#### **Conclusions**

Regarding library education, what is usually applicable to Arab countries is likely to be applicable, to some extent, to Jordan. The programs for educating individuals in the fields of library, information, and digital archiving sciences in Jordan are always developing and improving. Library science programs have shown obvious advancement, transitioning from diplomas to bachelor's degrees to master's degrees, and it is quite likely that in the near future, they will expand to include PhD programs. In his 1992 master's thesis, (Momani, 1992) expressed that despite the endeavors and accomplishments in enhancing education and training for library and information science in Jordan, the present state of affairs remains unsatisfactory, yet it offers potential for a more promising future. The Department of Library and Information Technology at Al-Hussein Bin Talal University is experiencing notable progress in its programs to align with the era of information technology. This is achieved through the implementation of new curriculum and visions, including the Master's Degree Program in Information Management and Digital Archiving. The program is currently being offered and has demonstrated success, evident by the increasing number of students and growing demand for such programs. Nevertheless, it seems that we are still facing the same predicament as a result of insufficient coordination and cooperation among the diverse professional programs available in the country. We require an expeditious and pragmatic national strategy that accurately forecasts forthcoming advancements in the field. It is advisable to have a positive outlook as Jordan's library system, librarianship, and library education are showing promise. This is particularly noteworthy considering the country's status as a young nation with numerous urgent priorities and problems (Momani, 1992).

When examining libraries, information, documentation, and digital archiving, it is essential to consider important issues and obstacles such as curricula, accreditation, teaching methodologies, and research. Although four Jordanian universities currently provide diploma, bachelor, and master's degree programs in library, information, and digital archiving, there is a prevailing lack of uniformity and coordination in terms of the mission, vision, intents, and contents of these different academic programs. The academic programs of the four universities lack collaboration and synchronization in enhancing their curricula and teaching methodologies. Currently, there is a lack of sufficient, contemporary, and thorough research or study on the significance of this problem within the higher education system. There is a requirement for greater collaboration and organization among faculty members in Jordan's four universities to evaluate the current situation and propose more efficient approaches to improve teaching in libraries, information, documentation, and digital archiving throughout the country. We propose that all faculty members specializing in library, information, documentation, and digital archiving sciences from Jordan's four public and private universities should partake in a nationwide scientific day or workshop. The purpose of this event would be to address and deliberate upon the significant issues pertaining to the future of the profession. The primary objective of every academic program should be to bridge the disparity between the requirements and competencies of library professionals while considering the pertinent and up-to-date advancements in information technology, telecommunications, and digital transformation.

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#### SERHAN A. AL TAWALBEH

Кафедра бібліотекознавства та інформаційних технологій, Коледж мистецтв, Університет Аль-Хусейна бін Талала (Маан, Йорданія), e-mail: satwlbh@yahoo.com, Sarhan.A.Tawalbeh@ahu.edu.jo, ORCID 0000-0003-1406-0955

#### RAID J. SULEIMAN

Кафедра бібліотекознавства та інформаційних технологій, Коледж мистецтв, Університет Аль-Хусейна бін Талала (Маан, Йорданія), e-mail: raidjameelsuleiman@gmail.com, Raid.j.suleiman@ahu.edu.jo, ORCID 0000-0001-6247-826X

#### MUSTAFA H. AHMED

Кафедра бібліотекознавства та інформаційних технологій, Коледж мистецтв, Університет Аль-Хусейна бін Талала (Маан, Йорданія), e-mail: mustafahamdi@hotmail.com, Mustafa@ahu.edu.jo, ORCID 0000-0001-9289-0984

# Розвиток викладання бібліотечно-інформаційних наук та цифрового архівування в Йорданії: на прикладі Університету Аль-Хуссейна бін Талала

### THE CONTRIBUTION OF THEORY AND RESEARCH TO THE TRANSFORMATION OF LIBRARIES

Мета. Дослідження було спрямоване на вивчення прогресу викладання бібліотекознавства та інформології в кількох йорданських університетах з моменту їх заснування до сьогодення (1921–2022 рр.). Дослідження мало на меті надати всебічний аналіз розвитку та проблем, з якими стикаються у сфері бібліотекознавства та інформології в Йорданії, зокрема, зосередившись на бакалаврських та магістерських програмах, що пропонуються Департаментом бібліотечних та інформаційних технологій Університету Аль-Хуссейна бін Талала. Методика. У дослідженні використано методи описового та контент-аналізу для вивчення початкових етапів створення першої професійної програми з викладання бібліотекознавства та інформології наприкінці 1970-х років. Аналіз зосередився на розробці новоствореної магістерської програми з інформаційного менеджменту та цифрового архівування на кафедрі бібліотечних та інформаційних технологій факультету мистецтв Університету Аль-Хуссейна бін Талала. Результати. Академічним програмам чотирьох університетів бракує співпраці та синхронізації в удосконаленні навчальних планів і методик викладання. Наразі бракує достатніх, сучасних і ґрунтовних досліджень або вивчення важливості цієї проблеми в системі вищої освіти. Існує потреба у більш тісній співпраці та організації між викладачами чотирьох університетів Йорданії для оцінки поточної ситуації та пропозиції більш ефективних підходів до покращення викладання в галузі бібліотечної справи, інформаційних технологій, документознавства та цифрового архівування. У галузі бібліотечної справи, інформації та цифрового архівування наука в Йорданії постійно розвивається і вдосконалюється. Кафедра бібліотечних та інформаційних технологій Університету Аль-Хуссейна бін Талала досягає помітного прогресу у своїх програмах, щоб відповідати сучасним інформаційним технологіям. Висновки. Основною метою кожної академічної програми має бути подолання непомірності між вимогами та компетентностями бібліотечних фахівців з урахуванням актуальних і сучасних досягнень в галузі інформаційних технологій, телекомунікацій та цифрової трансформації.

*Ключові слова:* бібліотекознавство; Йорданія; програма з бібліотекознавства; магістратура; Університет Аль-Хуссейна бін Талала

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