



# Library and Information Science in the USA and Iran<sup>1</sup>

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## Abstract

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**Introduction:** In the context of the global mobility of skilled professionals, this is a comparative study of library science education and librarianship in the USA and Iran. The study attempts to determine how education and professional skills may transfer from one country to another. Historically, the USA and Iran are two various significant centers of development of knowledge, science and technology, and culture. Each of these two countries developed its general education and library science education system and professional practice. This study investigates the definition of the librarian profession, historical perspectives, types of librarians and librarian-related positions, the initial academic training of librarian (schools, duration, curriculum, and accreditation), daily activities of librarians, continuing education, and opportunities and challenges of the profession in each country.

**Methods:** The qualitative research method was selected to conduct this study using benchmarking.

**Results:** This investigation led to a comparative analysis pointing out similarities and differences in this scope. The comparative investigation of the LIS profession and education was conducted for the first time. The first part of this presented historical perspectives for library science education and librarianship. The second part of the paper demonstrated contemporary library science education and librarianship in each country. The last part contained a comparative critical discussion of both systems.

**Conclusion:** The present study concludes that, even though both systems are different, with the globalization of knowledge, education, and communications, under certain circumstances, one could consider a librarian “qualified” to practice across the border.

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## Introduction

Library and Information Science (LIS) is a multidisciplinary field focusing on information collection, organization, preservation, and dissemination. Library and information education in different countries have different backgrounds and strengths, and weaknesses. Therefore, to benefit from the experiences of different countries in the field of librarianship and information, a comparative study in this field will be helpful.

There is significant literature comparing LIS education and

professional practice in the USA and Iran. These studies tend to focus more on specialties/minors rather than on the whole program. Lila Mortezaie and Nader Naghshineh (1) compared LIS education programs in UK, USA, India, and Iran. This paper that compared LIS program development in developed countries versus developing countries concludes that:

“The findings support no clear conclusion other than the fact that there is a widening chasm between LIS education in developed countries and those in developing countries. Without



any significant restructuring, the LIS program in Iran will provide little in the way of riding out the rapid transition that the field is currently experiencing at a regular interval.”

The study mentioned above suggested that to improve LIS education in Iran, it is essential to introduce competitiveness within the curricula and academic management; make LIS education multidisciplinary; to establish independent LIS schools; to abandon centralized planning from the Ministry; allow LIS schools to engage constructive and progressive program planning (1). Fattahi et al. conducted a study on the LIS curriculum in the USA, UK, Canada, Australia, and India to find similarities with Iran's. They suggested two minors in Information management and Information technology management based on the country's current information needs (2).

In 2011, Alimohammadi found a substantial similarity between LIS Ph.D. (3). The curriculum in Iran, the USA, and Canada, and Mansourian also linked LIS minors/specialties in UK, USA, Canada, and Australia and pointed out the variety and diversity of these programs due to the specialization and interdisciplinary nature of LIS (4). Moreover, Taheri and Alaei Arani focused on LIS specialties/minors in the USA, UK, Canada, and Iran and their effectiveness on scientific productions at the international level (5). They found out that the multiplicity of specialties/minors was different in different countries and directly affected their productivity. They also believed that these specialties/minors have to be created based on the community needs of that society/country, and they reflect the maturity of this field.

On the other hand, literature is abundant in various aspects of the topic that comprehensively helped define and refine this study. General literature on comparative education helped build a good understanding of this field and determine how this study fits in. Primary research works in comparative education were considered, including Comparative Method in Education (6), Comparative Education (7), Comparative Education: Some Considerations of Method (8), Comparative and International Research in Education: Globalisation, context, and difference (9), Comparative Education: The Construction of a Field (10), Theories and Methods in Comparative Education (11), Social Cartography: Mapping Ways of Seeing Social and Educational Change (12), Toward a Science of Comparative Education (13), “Comparative Education: The Dialectic of the Global and the Local (14)”, “Globalization and Educational Reform: What Planners Need to Know” (15), “Comparative and International Education.” (16), In Encyclopedia of the Social and Cultural Foundations of Education; “Reconceptualising comparative and international education (17). However, there are some comparative studies on library and information education focused on different regions as West Africa (18), Tanzania and Jordan (19), European Union (20), developing countries (21), United States and Asian countries (22) referring to the courses, curriculum, educational goals, models, career prestige, librarian skills.

Historically, the USA and Iran are two influential development centers of knowledge, science and technology, and culture. Each one of these two countries developed its system of general education and LIS education and professional practice. The American and English professional librarians had supported Iranian librarians' founding of the Iranian Librarians Association, designing librarianship curriculum, as well as launching library science Bachelor and Master in Tehran University through the Fulbright program during 1965-1966. Moreover, the Iranian librarianship was largely influenced by

the Iranian Librarians Association's scientific activities during 1966, as they had graduated in the United States. Nevertheless, the current state of librarianship and information education in these two countries is not clear in comparison. Therefore, in a context of global mobility of skilled professionals, this study aims to investigate the definition of the librarian profession, historical perspectives, types of librarians and librarian-related positions, the initial academic training of librarian (schools, duration, curriculum, and accreditation), daily activities of librarians, continuing education, and opportunities and challenges of the profession in both countries. This means how LIS education and professional practices in the USA and Iran compare to one another and how credentials acquired could transfer to the other. Accordingly, this study intends to point out differences and similarities of LIS education, credentials, and professional practices in the two countries under consideration and investigates professional librarians' academic qualifications offered by Iranian institutions, and compares them to similar degrees offered in the USA. The questions that led to this study are trying to address: What are the differences and similarities in LIS education and profession in respected countries? How to assess the quality of LIS education and degrees from Iranian institutions for professional librarian employment in the USA and vice-versa? How differences in resources and the digital/technology divide between the USA and Iran have a differential impact on programs and resources offering in both regions? This type of study is vital in the context of the global mobility of professionals across national borders.

## Methods

We selected qualitative research methods to conduct this study. This qualitative approach builds on many written and/or electronic resources on the topic. The choice of qualitative methods can be explained by the importance of national, social, and cultural factors in the field of library and information science. The qualitative research methodology is particularly suitable to collect data in an environment where human factors, attitudes and behaviors, and cultural factors are critical elements. To collect data for this study, the researchers searched for institutions, curricula, policies, and regulations in the library and information science in the USA and Iran. On both sides, the researchers collected information about LIS schools, LIS accreditation institutions, and other governmental and non-governmental institutions regulating education, qualifications, and professional practice in the field of LIS. In the USA, the researchers reviewed LIS education in selected schools such as the ones at the University of Illinois at Urbana Champaign and the University of Michigan in Ann Arbor. They also collected information about accreditation and professional practices from American Library Association sources. On the Iranian side, two ministries of Science, Research and Technology and Health and Medical Education are responsible for planning for every discipline like LIS and Medical LIS by assigning the Planning Committee for education in LIS and High Council for Medical Planning to revise and suggest new curriculum in this field for all schools nationwide and improve the impression of this career in the society. Moreover, the information about LIS education in Iran was collected from these committees and related research. All the documentary sources were reviewed for analysis with a benchmarking approach.

## Results

### LIS education in the USA and Iran

#### A. LIS Education in the USA

The American Library Association regulates LIS education, which is the responsibility of many higher education institutions, through its ALA label for academic degrees. In fact,

“The American Library Association (ALA) is the oldest and largest library association in the world. Founded on October 6, 1876, during the Centennial Exposition in Philadelphia, the mission of ALA is “to provide leadership for the development, promotion, and improvement of library and information services and the profession of librarianship to enhance learning and ensure access to information for all.” (23).

The professional reference degree in the USA is a Master’s degree. This reference degree is the minimum qualification to enter the field of LIS and a professional librarian. As the ALA website states:

“In 1951, the new Standards for Accreditation were approved by ALA Council, stating that that the professional program should encompass a minimum of five years of study beyond secondary school and should lead to a Master’s degree. A Master’s degree in library science (MLS), preferably from an American Library Association (ALA) accredited program, is necessary for most librarian positions in most public, academic, and special libraries. School librarians may not need an MLS but must meet state teaching requirements.” (23).

The ALA defined core competencies in 2008 for librarianship that serve as guidelines for curriculum development by different academic institutions. The ALA states that:

“In the United States and Canada, a professional librarian normally has a one or two-year Master’s degree in library and information science, library science or information science with abbreviations such as MLS, MSLS, MIS, MS-LIS, MIST, MI, MLIS, or MILS. Many, if not most, academic librarians also have a second, subject-based Master’s degree.” (23).

The core competencies are defined in the following areas: 1) Foundations of the Profession, 2) Information Resources, 3) Organization of Recorded Knowledge and Information, 4) Technological Knowledge and Skills, 5) Reference and User Services, 6) Research, 7) Continuing Education and Lifelong Learning, 8) Administration and Management.

It appears that LIS education is a graduate, Master’s level education for students already possessing an undergraduate degree in any other field. This American ALA standard has been adopted in Canada, making this education a kind of North American norm that is appreciated not only in North America but also in other world regions. Several academic institutions in some non-North American countries advertised jobs with ALA degree requirements.

#### B. LIS Education in Iran

It is important to distinguish two periods in LIS education in Iran: pre-revolution and post-revolution time:

#### Pre-Revolution

The pre-revolutionary time starts in antiquity since professional practice and education in LIS represents a long tradition that goes back to the Achaemenes period (640 BC-338 BC) and the Sassanid period (242 BC-31 BC) (24) with distinguished historical libraries. In 637 AD, after the Muslim conquest of Persia, royal libraries were replaced by school, academic, and personal/individual libraries, which opened their doors to the public (25). The nineteenth-century brought some recent developments in LIS practice and education during the Qajar rule (1779-1926), mirroring librarianship’s growth in the United Kingdom and the United States of America. However, access to this type of library was limited to the King and the Qajar court.

Modern LIS education and librarianship started with the rule of Pahlavi I (1925-1941), along with technical, economic, and cultural infrastructure developments. During this period, the Ministry of Culture created the condition for developing the Iran National Library (26). In the meantime, some American institutes, as well as UNESCO, were funded short-term courses in LIS from 1952 to 1965, which was found not easy to apply according to the differences between libraries in the USA and Iran. Furthermore, their courses and their graduates’ quality were not such that they could manage brand new established academic libraries. Hence, it led to establishing a college in Iran, along with dispatching students abroad (27). Formal education in LIS started in 1938 with some training courses at the University of Tehran-Danesh Sara-e Aali (28–31). Librarianship and LIS development in Iran’s pre-revolutionary was also related to an agreement between the University of Tehran and the USA, the Fulbright Commission, which used to send at least one LIS academic professor annually to work in Iran.

The first formal degree (Bachelor’s) program started in Library Science started during the academic year 1964-1965 at the University of Tehran with Professor Alice Lohrer from the University of Illinois at Urbana-Champaign. A Master’s program was established at the same university in 1966. The University of Tabriz started a Bachelor’s program in LIS in 1966 and a Master’s degree program two years later. These two institutions were followed by other universities (Shiraz, Jondi Shapoor, and Al-Zahra) between 1974 and 1977.

#### Post-Revolution

In terms of education, after the Islamic Revolution in 1979, when universities reopened in 1982, government institutions such as the Supreme Council of Educational Planning, Ministry of Science took charge of developing LIS programs and curricula. With the Library Services Center’s integration in the National Library, national cataloging and bibliographic tools were developed with more systematic scientific principles. The Planning Committee for education in LIS was launched to educate librarians to apply modern information technology tools (24,32–36). In 1986, new minors were developed in LIS in academic, public, school Libraries, and information sciences. A renovated Bachelor’s degree with a new title was launched in 1987. In 1990, six minors were developed within the Bachelor’s degree program. The first doctoral (Ph.D.)



program in LIS was developed in 1991 at the Islamic Azad University, a science and research branch of the University of Tehran. In 2006, two minors were developed within this Ph.D. program to manage information technology and information management. Between 2006 and 2015, several minors were developed within the Master's degree programs in information management, information technology management, public library studies, academic library management, Information Management, information and knowledge, scientometrics, manuscripts management, and organization of manuscripts and archival studies and the courses were updated again. The tendency was to create new minors and specialties that can meet society's changing needs; LIS trends play a significant role in scientific development (37). At the beginning of 1999, 24 library and information science departments were in charge of training librarians in Iran for the following degrees: Associate, Bachelor, Master, and Ph.D. Curricula were developed by the Supreme Council of Educational Planning (2012-2014) that made the English language a second language for students in LIS with the choice of another/third language French, German and Arabic.

The Bachelor's degree program provided courses in Libraries and Information Centers Management, Research Methodology and Reporting, Information and Communication Basics, Internet Application in Libraries, Statistics and Probabilities in Library and Information Science, Programming applications, Database Designing, Publishing Industry, Indexing, Electronic & printed periodicals, History of developments in libraries, Resource Acquisition, Resource Organization 1 & 2, Reference Resources-General 1 & 2, Reference Resources-Specialized 1 & 2, Reference principles, Library Building & Equipment, Material and references for children, library & Information sciences principals, three courses for the internship, and Final Project. On the other hand, the Master's degree program provided courses regarding Science, Technology, and Innovation (STI) evaluation: Scientometrics Principals, Application of Inferential Statistics in Scientometrics, National and international Databases in Scientometrics, the Architecture of Scientometrics databases, STI Systems evaluation, History of Philosophy, Science mapping, Sociology of Scholarly Communication, Webometrics, Research Methodology, Research Seminar, and thesis. It is also worth mentioning that several revisions of the LIS curriculum by the relevant committee at the Ministry of Science, Research and Technology led to title revision twice from "librarianship" to "library and information science", and finally to the last title of: "Knowledge and information science" in 2012.

Beyond academic education, librarians in Iran manage knowledge and information for career and professional practice by creating and maintaining dynamic collections in various libraries. There are university libraries in all public, government, and private colleges and universities. However, professional librarian positions in Iran are not always filled with LIS graduates in every institution, even though this is an attempt to establish a LIS degree as a requirement for librarian jobs. A solution to this problem is the creation of new programs for LIS Masters with specialties in Information Management, Information Technology Management, and Scientometrics.

### Compare US and Iran

As table 1 shows, compared to Iran, the USA has a long tradition of librarianship and formal library science education.

The American library association was created in 1876, while the first formal LIS degree in Iran was created in 1964-1965. In the USA, the tradition and the cultural and political environment are very supportive of formal LIS education. Librarianship and library science education are highly valued in a country with thousands of librarians in academia, communities, and the corporate world. It is worth noting that no undergraduate degree gives access to professional librarians' status in the USA. They instead had a graduate-level education with a Master's degree after a Bachelor's degree in any field. Building LIS education in an undergraduate degree in another field allows the aspiring library to build subject expertise right from the beginning. For an academic career as a librarian, most universities require a second Master's degree in a subject field. This additional requirement allows the librarian to strengthen his/her expertise in his/her subject area or even add another subject area. This is, therefore, an additional opportunity for subject specialization. In the USA, librarians in several universities have the status of faculty members. LIS education in the USA is provided in a highly developed educational system with hundreds of LIS schools collaborating and competing to provide the best to students. LIS educational institutions and programs are relatively well funded and evolve in a highly advanced information technology environment. This education is guided and supported by very high standards of development by the American Library Association. The ALA label for LIS degrees in the USA is a label of excellence and prestige not only in North America but also in other parts of the world.

The LIS profession started a long time ago in Iran comparing to other countries in the world. Accordingly, their educational system provides LIS education at the undergraduate level with a Bachelor's degree in four minors/specialties Medical, Humanities & Social Sciences, engineering, and Pure Sciences. One can be a librarian with a Bachelor's degree in LIS. Master's degrees also exist as additional/advanced qualifications without being a requirement to be a professional librarian. The minors/specialties are Information Management, Information Technology Management, Public Library Studies, Academic Library Management, Information Management, Information and Knowledge, Scientometrics, manuscripts management, and organization of manuscripts and archival studies. One can also be a librarian with a Master's degree in LIS after an undergraduate degree in LIS or another field. Studying in another field instead of LIS gives librarians a special capacity to serve as a subject specialist which is a great potential in library management tasks such as categorizing, indexing, and searching.

As for job opportunities, it is worth mentioning that, with the increasing importance of science, technology, and Innovation, scientometrics department and offices have been launched in universities and organizations to evaluate scientific productivity and the impact of universities and researchers' recently which opens new horizons to the LIS master graduates. Librarians can also work in scholarly communications offices of universities, institutes, and ministries like the Iranian Research Institute for Information Science and Technology (IranDoc.)<https://irandoc.ac.ir>. However, less economical, technological, and pedagogical resources, especially in Farsi, make it more challenging to provide and acquire adequate LIS education. This is why LIS faculties and experts try their best to provide more textbooks and resources in Farsi to meet this critical need. The table below provides a comparative summary of LIS Education and professional practice in the USA and Iran (Table 1 and Table 2).

Table 1. LIS education in the USA and Iran

Indicators	USA	Iran
Tradition of modern/formal LIS education	Longer tradition	Less long tradition
LIS education origin	USA	USA
Related Discipline	N/A	Humanities and social science
Language of instruction	English	Farsi
Social value of LIS education (Job opportunities)	Higher value	Lower value
Degrees offered	Master's degree, doctorate (PhD)	Bachelors, Master, and doctorate (Ph.D)
Development level of LIS school	Highly developed in a more advanced higher education environment	Less developed in a less advanced higher education environment
Development of LIS education in terms of minors and majors/ Trends/ Main courses	N/A	Regularly developed according to the society 'needs (like Scientometrics or Archival studies)
Quality/prestige of accreditation body	High quality and prestigious accreditation body (ALA) with international recognition	National accreditation without international standing
Access to global LIS literature	Easier/ more comprehensive access with the English language	Access to global LIS literature

Table 2. LIS Career in the USA and Iran

Indicators	USA	Iran
Tradition/history of Librarianship	Relatively long tradition	Longer tradition
LIS Association foundation	Since 1876	Since 1964-1965
Social value of librarianship	Higher value	Lower value
Degree for entry into professional practice	Master's	Bachelors or Master's degree
Degree requirement for academic librarianship	Typically, 2 Master's	Bachelor's degree or 1 Master's degree 1
Status of librarians in higher education	Faculty status in many cases	Administrative or management status in many cases
LIS involvement in STI evaluation	N/A	Founded STI evaluation department in academic libraries in some cases

## Discussion

The critical question is whether a LIS education and/or professional practice in Iran is equivalent or at least comparable to similar education and practice in the USA. It is not realistic to provide a simplistic answer to this question. Differences in the cultural, political, and economic environment and education history translate into a significance difference in terms of degree and experience received on both sides. In Iran, librarianship and LIS education face many challenges inherent to education systems in developing countries. While it is legitimate to

provide LIS education in Iran's national language (Farsi), this language may represent a limitation from an international perspective. LIS graduates who have an adequate mastery of the English language and other international languages are not limited to academic and professional resources available only in Farsi. The same graduate may not have access to job opportunities out of Iran because of this language barrier. That is the reason LIS students are encouraged to improve their English as a second language.



Several librarians and aspiring librarians do not have adequate job skills, job opportunities, and motivation. Researchers in library science has documented different challenges in LIS professional practice as follows: lack of training and skills in information technology (IT), lack of adequate IT courses in LIS education programs/curricula, insufficient quality of education, research, and professional activities in LIS (2,38–41), lack of adequate resources/textbooks in the Farsi language, lack of relationships and collaboration with other LIS programs and schools worldwide (42), too much focus on practical and professional aspects at the expense of theoretical principles and foundations, lack of research approaches (43), the critical need to develop technology-related skills (44) the need to create an IT-specific institution of higher education (45).

LIS education needs to be continually updated and expanded and all curricula should receive adequate support and resources, particularly in the Farsi language. Many courses are specially taught in English, especially at the graduate level. Consequently, there are not enough textbooks in Farsi at the graduate level (Master's and Ph.D.). LIS education in Iran could be improved both quantitatively (number of LIS departments) and qualitatively (different minors/specialties). Further study of the evolution of this field, along with the role of related associations and departments will undoubtedly reveal more opportunities and challenges. Despite current challenges, LIS in Iran remained one of the most dynamic fields in terms of literature, curricula, programs, and academic development in general over the past three decades. This dynamic development has attracted students from other disciplines to LIS. The Iranian LIS community expresses and experiences this dynamism through an annual National LIS congress organized by the Iranian Library and Information Association (LISA).

Iranian higher education institutions are not at the same level in terms of educational resources and facilities. Education received for schools with the best facilities may compare more favorably to opportunities in the USA. Also, a librarian with an undergraduate degree in a subject field and a graduate degree in LIS may compare more favorably to LIS graduates in the USA. Therefore, credentials may have to be evaluated on a case-by-case basis.

## Conclusion

As one of the significant cultural and intellectual centers of the world, Iran has a long tradition of literature and

librarianship. However, modern LIS education is relatively new in Iran, and this education is adversely impacted by problems inherent to education systems in developing countries. The use of the Iranian national language for LIS education, which is legitimate, restricts access to resources available in major world languages such as English. LIS educators and programs recognize this limitation that they try to mitigate by providing opportunities for LIS students to learn additional/international languages. On the other hand, an American LIS graduate/librarian who wants to practice LIS in Iran will face some language and cultural challenges.

To be competitive on the international scene, LIS education in Iran could be aligned on internationally recognized standards such as the ALA, particularly if librarians from Iran should have the opportunity to practice their profession in North American and in other parts of the world where the North American ALA label is recognized. LIS education in Iran should overcome the challenges mentioned above. While maintaining the national language, the teaching and use of international languages such as English should be reinforced with a clear intention of training graduates who can access resources and opportunities available at the international level. As things stand right now, the LIS credentials of Iranian graduates and professionals can be appreciated on a case-by-case basis. On the other hand, LIS education in the US could be improved by adding more scientometrics skills to the course syllabus to equip librarians with evaluation skills.

## Declarations

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The authors have declared that no competing interests exist.

### Ethical statement

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