Education on Library and Information Science in Spain

Development and current tendencies

This article presents the current situation of the Library and Information Science (LIS) in Spain, describing the evolution of these studies from the very beginning and emphasising the development experienced during the past few years. This development has been quantitative as well as qualitative. Quantitatively, because there has been an increase from a single school until the early 80s, to the eighteen LIS university centres currently offering courses at this end of century; qualitatively, because there has been a great change from the original single degree to the three separate degree programmes available today, in addition to the variety of continuing education courses. The curriculum of studies is also analysed, emphasising the role that some subjects such as management and information technologies have acquired. Finally, it concludes with the tendencies observed in the field and offers insights into future prospects.


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To talk about the beginning of Library and Information Science (LIS) education in Spain is to talk about it in Catalonia. In 1915 a library school was founded in Barcelona – the Escola Superior de Bibliotecàries, created by the local government of the Mancomunitat de Catalunya and under the direction of Eugeni d’Ors. This School would be for many years the only centre of library training in Catalonia and in Spain. It was created with the aim of training the librarians that would be in charge of the public libraries that the local government itself had begun to establish in 1918 throughout Catalonia, based on the model of the British network of public libraries. The admission was limited to women only, and would continue as such until 1975. Barcelona’s Library School is the second oldest in Europe, after the School of Leipzig founded in 1914, and nowadays is the oldest one at university level.

For many years the School of Barcelona was the only one in the whole of Spain. Despite the fact that its courses were not officially recognised as university studies, it had solid professional recognition within and outside Catalonia and even internationally. A three-year programme was offered which required an entrance exam to be admitted and final exam for completion of the degree. The programme emphasised both the theoretical and practical aspects of librarianship and also the humanistic education of the students. A good level in two foreign languages at the least was also required. At the end of the degree program, the students had to prepare and defend a dissertation in order to obtain the diploma. The School had one of its best periods during the Spanish Republic, between 1931-1939, under the direction of Jordi Rubió i Balaguer. A monographic series begun at the time – Quaderns de treball – is still being published though on a less active basis. Later, between 1944-1976, the journal Biblioteconomia was issued.

Following the Spanish Civil War, in 1939, the School was placed under the local government, the Diputació Provincial de Barcelona. This institution made it possible for the School to remain in existence until now. As the LIS education was given official university status in Spain, in 1982 the School became officially attached to the Universitat de Barcelona. Finally, in 1997 it became a full centre of the mentioned university and more recently, in July 1999, it achieved faculty status as the Facultat de Biblioteconomia i Documentació of the Universitat de Barcelona.

The old Escola Superior de Bibliotecàries, under different names and situations, has continued training librarians who work not only in public libraries but also in all kinds of libraries and information centres. This continuity gave way to the establishment of a Catalan librarians association, the Associació de Bibliotecaris de Catalunya, which later became the present Col·legi Oficial de Bibliotecaris-Documentalistes de Catalunya COBDC.

Apart from Catalonia it can be stated that LIS education did not exist elsewhere in Spain, except for some specific experiences. For a few years there was a small school in Navarra that belonged to the Universidad de Navarra, whose main aim was to provide trained librarians for the university’s own libraries. It was discontinued when its purpose was achieved. The Spanish national library – the Biblioteca Nacional in Madrid – offered some library and information training for years that led to the establishment, in 1968, of the Escuela de Documentalistas. Despite some interruptions, it proved to be the most continuous library education activity until university studies were finally officially established. Also some universities, including the Universidad Complutense of Madrid, introduced several subjects related to bibliography and information sources.

With such a lack of proper library schools, how were professionals working and managing Spain’s public and university libraries trained? Most of them held bachelors degrees in other branches of learning and subsequently acquired their library knowledge through self-taught methods. This self-training centred principally around preparing and studying a set of themes for passing exams required for job placement in public sector libraries or archives. The Escuela de Documentalistas also focussed its work on this aim. The highest level of Spanish librarians and archivists working for the public administration were the members of the Cuerpo de Facultativos de Archivos, Bibliotecas y Museos del Estado. It is also important to mention the existence, beginning in 1949, of a Spanish association of librarians called ANABA (Asociación Nacional de Archiveros, Bibliotecarios y Arqueólogos), now called ANABAD (Asociación Española de Archiveros, Bibliotecarios, Museólogos y Documentalistas). The majority of professional publications issued in Spain before the official recognition of library studies – mainly library standards and some handbooks - were produced by this association.

Professionals working in information centres rather than traditional libraries, joined SEDIC (Sociedad Española de Documentación e Información Científica), while in Catalonia the equivalent was SOCADI (Societat Catalana de Documentació i Informació). SOCADI was begun in 1984 and merged recently, in 1998, with the Col·legi Oficial de Bibliotecaris-Documentalistes de Catalunya, making the Col·legi the library association with the highest membership in Spain with some 1500 members.

The need for official recognition of LIS education and the creation of appropriate library and information schools was increasing in the whole country. The School of Barcelona and the Catalan and Spanish library associations had an important role in achieving

1. Full information about this School and its activities until 1939 can be found in: Assumpció Estivill i Rius, L’Escola de Biblioteconomia de Barcelona 1915-1939 (Barcelona: Diputació de Barcelona, 1985). Further information can be found in: Ernest Abadal, La documentación en España (Madrid: CINDOC: FESABID, 1994).

2. Comprehensive information on these experiences can be found in: Ernest Abadal, La documentación en España (Madrid: CINDOC: FESABID, 1994).
this goal and also in the prior work on the design of the curriculum of the future university LIS programme. It was not until 1978 that an official order finally decreed the first university degree in LIS: the diplomatura en Biblioteconomía y Documentación. From that moment, the door was opened for introducing these studies in Spanish universities.

2 The 1980s: official studies, foundation and development of university library schools throughout Spain

LIS studies, the first degree level being the diplomatura, were welcomed within Spanish universities, once recognition was provided by the official decree mentioned above. During the decade of the 80s, the field experienced a real take-off with the implementation of LIS studies and the establishment of several formal library schools, the Escuelas Universitarias de Biblioteconomía y Documentación (EUBD). In 1982 the studies offered by the original school in Barcelona, then called Escuela Universitaria Jordi Rubió i Balaguer de Biblioteconomía y Documentación, became officially recognised and it attached itself to the Universitat de Barcelona. Several public universities immediately became interested in incorporating these new studies. The first one was the Universidad de Granada, in 1983, followed by the Universidad de Salamanca in 1987, the Universidad de Murcia the following year and, in 1989, the Universidad de Zaragoza. In 1990 two universities simultaneously began offering the programme of studies: the Universidad Complutense and the Universidad Carlos III, both in the Madrid area. And, in the 90s, programmes have been established at the Universidad de León in 1991, the Universidad de Extremadura in 1994, and the Universidad de Coruña and the Universitat de València, both in 1996.

Some of these universities chose to implement the studies within the newly established library schools — the EUBDs mentioned previously. Such was the case in GranadaMurcia and the Complutense de Madrid. At the same time, other institutions decided to consolidate the programme of studies into previously existing centres. In the following years, with the introduction of the second LIS degree level, most of these schools have become faculties — higher level university centres in the Spanish university system. In Annex I a comprehensive list of university centres offering LIS studies, at any degree level, is given.

Apart from the activities at these public universities, some private institutions also incorporated the LIS diplomatura: the Universidad San Pablo-CEU in Madrid in 1994 and the Universitat de Vic, in Catalonia, in 1998.

3 The diplomatura: purpose, structure and contents

The LIS Diplomatura en Biblioteconomía y Documentación, as it is officially known, consists of a three-year degree programme. In order to enter the diplomatura programme, candidates are required to pass the admission exam for Spanish universities. This three-year degree programme is organised in three annual terms of two semesters each, with a minimum of 180 credits. Each theoretical credit involves between seven and ten teaching hours, while practical courses represent double this amount. The latest reform in the curriculum establishes that most subjects last one semester. Each subject should represent a minimum of six credits, with a few exceptions. The maximum number of subjects per semester is five.

This programme is conceived of as providing basic instruction on both the theoretical and practical aspects of LIS. It is meant to educate librarians and information specialists for them to later assume the typical duties of libraries, archives and other information services. Briefly it can be said that the diplomatura strives 1) to train students in the knowledge and techniques related to the organisation of documents, in order to select, acquire, handle, maintain and retrieve them, 2) to train in the basics of libraries', archives' and information services' organisation, and 3) to understand the information technologies essential for the development of all these duties and services.

In accordance with the Spanish university system, the diplomatura has a core component, that is fundamental and obligatory, and an optional one, to be chosen within the range of possible subjects offered by each LIS centre. There is also a third component called free choice that allows the student to choose freely among the subjects offered by the university at large.

The official guidelines that regulate the diplomatura establish a minimum of 91 compulsory credits distributed into the following areas:

- 20 cr Documentary analysis and languages (cataloguing, classification and indexing, information retrieval)
- 10 cr Archives
- 10 cr Bibliography and information sources
- 10 cr Library science
- 10 cr Information science
- 15 cr Information and communications technologies
- 6 cr Historical techniques for bibliographical research
- 10 cr Practicum (On-site training in libraries, archives and information centres)

These compulsory credits can be expanded upon a bit, if desired. Ten percent of the total amount of credits (18) are devoted to the free choice segment mentioned above. The rest, a maximum of 71 credits, are devoted to the optional components. Each centre should offer a list of subjects for the student to choose from. It is important to note that the Practicum, a compulsory subject which involves twelve practical credits, represents some 240 hours of training in libraries, archives or information centres.

4 The 1990s: the new second degree level. From the university library schools to the new library and information sciences faculties

During the 90s Spain has witnessed an increase in the number of centres offering the LIS diplomatura. Nev-
theless, the most significant event of this decade was the implementation of a new LIS second degree level, known as the licenciatura en Documentación. The contents and aims of this two-year programme, available only to students who have finished the first degree level, are discussed in the next section.

The official order that establishes the licenciatura was published in 1992. This second LIS degree was requested by many active librarians. It had two important and almost immediate consequences: 1) The introduction of these studies in several universities that were already teaching the diplomatura as well as in others who are only offering the licenciatura, and 2) Most of the existing library schools – the EUBD –, were converted into full-fledged faculties.

The licenciatura was offered for the first time in 1994 in four Spanish universities. Three of them already had established the diplomatura: Carlos III de Madrid, Granada and Salamanca. These were also joined by the Universidad de Alcalá, also located near Madrid. The Complutense de Madrid has offered the licenciatura since 1996, and the universities of Extremadura and the Politécnica de València, since 1997. The following year the Universidad de Murcia joined the growing ranks.

In Catalonia the situation was somewhat different. Considering the long history of the School of Barcelona, and despite the huge professional demand for the LIS second degree level, it seems surprising that the programme was not inaugurated until 1998. However, it was not possible to establish the licenciatura until the old School had become an official centre of the Universidad de Barcelona which, due to a number of circumstances, did not take place until 1997. The following year, the licenciatura was implemented straight away. And very recently, during the 1999-2000 academic year, two other Catalan universities, the Universitat Autònoma de Barcelona and the Universitat Oberta de Catalunya have also introduced the licenciatura, the latter one uniquely offering it through distance learning.

5 The licenciatura: purpose, structure and contents

The licenciatura consists of a two-year programme and is, in part, an extension of the diplomatura. Its main aim is to train specialists in library and information management. It is organised in two annual terms of two semesters each, with a minimum of 120 credits. According to the official guidelines, 47 credits are compulsory with the following distribution:

- 8 cr Resource administration in information units
- 6 cr Statistics
- 6 cr Planning and evaluation of library and information systems
- 8 cr Knowledge processing systems
- 5 cr Computer systems
- 8 cr Abstracting and indexing of scientific information
- 6 cr Information science research methods

These compulsory credits can be extended somewhat by each centre, if desired. As it can be seen, the basic components of the second LIS degree are subjects related with library management, information management and retrieval, and new technologies. However, there is no practicum as in the diplomatura. Nevertheless, in most of the faculties a training period is established, whether compulsory or optional. From the total amount of credits, 12 are free choice. The rest, a maximum of 61 credits, are optional subjects. Each centre should offer a list of subjects for the student to choose from. Some of the faculties have used these optional subjects to draw up specific curriculum focused on specific professional profiles, as is the case of the universities of Barcelona and Murcia. However, excessive specialisation has been avoided in order to favour the figure of a many-sided specialist which is what the labour demand most frequently seeks. The Universitat Politècnica de València is an exception as its curriculum decidedly tends to information and communications technologies.

One of the most important aspects of the licenciatura is that in addition to admitting LIS students, it also is open to students with degrees in other subject areas. Students coming from other fields must take between 40 and 45 extra credits in basic LIS subjects. Opening the licenciatura to students of other fields has had two effects: On the one hand, the licenciatura allows LIS first level graduates to access to a higher level degree and to be prepared for the management of large libraries and information centres. On the other hand, students coming from other backgrounds help to enlarge and enrich the scope of the studies, which are increasingly seen as interdisciplinary. There has been a strong demand for higher level LIS studies especially from graduates of other fields that have had experience working in libraries and information centres.

6 The doctorate: an option of every university

Once the diplomatura and the licenciatura were officially established by law, Spanish universities began creating LIS departments. University departments serve to draw together lecturers of the field of study and also are responsible for organising all teaching and research activities. The need for adequately trained lecturers able to both teach and perform research, together with the demand for a third level LIS degree devoted to research, has led to the creation of doctorate programmes in several university departments.

The Spanish university system establishes some general guidelines for all doctorate programmes that have been recently reformed. There are no specific guidelines for doctorate programmes in every particular area of knowledge. All programmes consist of two annual terms with 32 credits, including theoretical courses (20) and research activities (12), prior to the preparation, presentation and defence of a thesis. LIS doctorate programmes currently offered in Spanish universities have selected all subject areas proposed by their departments. These topics are usually strongly related to the main lines of research of the organising department. Annex I shows the current offering of LIS studies at all levels.

5 "Real decreto 912/1992, de 17 de julio, por el que se establece el título universitario oficial de Licenciado en Documentación y la aprobación de las directrices generales propias de los planes de estudios conducentes a la obtención de aquél". In: Boletín de oficial del Estado, no. 206 (27 agosto 1992).
including doctorate programmes, with an indication of the main focus of research.

7 Current offering: official university programmes

A comprehensive list of the Spanish universities, public and private, offering LIS education in any degree is presented in the Annex I. The name of each centre, the official programmes offered in the term 1999-2000 and the year they began, the topics of the doctorate programmes if any, and the web site addresses are also indicated. Altogether there are seventeen universities that include eighteen centres\(^6\). The territorial distribution among the Spanish autonomous regions is as follows:

Andalusia
- Universidad de Granada
- Aragon
- Universidad de Zaragoza
- Castilla-León
- Universidad de León
- Universidad de Salamanca

Catalonia
- Universitat Autònoma de Barcelona
- Universitat de Barcelona
- Universitat de Vic
- Universitat Oberta de Catalunya

Extremadura
- Universidad de Extremadura

Galicia
- Universidade da Coruña

Madrid
- Universidad de Alcalá
- Universidad Carlos III de Madrid
- Universidad Complutense de Madrid
- Universidad San Pablo-CEU

Murcia
- Universidad de Murcia

Valencia
- Universitat de València
- Universitat Politècnica de València

One can safely state that there is a varied offering within the Spanish territory. Nevertheless, there are certain significant regional imbalances. One of these is the centralisation of so many programmes in two regions – Madrid and Catalonia – that could soon become excessive. These areas have seen a spectacular growth in the past two years, whose end is still not in sight. On the other hand, there are significant lacunae in several regions that are important either for their population or for their development: this is the case in the Basque region and in the Balearic Islands.

8 Continuing education: the role of professional associations and other institutions

It would be unfair to omit the continuing education activities that Spanish professional associations have developed. The Catalan region has also been a pioneer in this aspect. As mentioned previously, there is a long-standing and well-regarded professional librarians association: the former Associació de Bibliotecaris de Catalunya, now the Col·legi Oficial de Bibliotecaris-Documentalistes de Catalunya COBDC. The Col·legi, recently merged with SOCADI, a consortium of Catalan information specialists. Every year a training programme of activities is offered to its members, that mainly consists of short, intensive courses related to different subjects of professional interest. In the past few years the main subjects have been related to management trends, library automation, information technologies and the new environments and services that these technologies provide. To mention just a few examples, courses have been offered on topics as varied as how to conduct a meeting to university library management; from introductory Internet courses for librarians to electronic journals management or digital libraries organisation.

Other associations from the rest of Spain have had similar activities, not only at a national level, but on a regional basis as well. Of special importance are the courses offered by SEDIC (Sociedad Española de Documentación e Información Científica) that from their beginnings have held great interest for their focus on specific training for information specialists. SEDIC has a continuing education programme that includes an annual General Course on Information Science and several monographic courses. SEDIC has also established a professional accreditation plan with no relation to the official university LIS programmes\(^7\).

Annex II provides a list of the main professional associations throughout the country. Many of them have web sites where information on their activities, including continuing education programmes, can be found. It is also important to point out the role developed by universities in continuing education initiatives. There are several institutions offering courses for LIS graduates in an aim to satisfy the demand for continuing education. There is a wide offering of courses on a graduate and/or masters level on variety of topics, particularly of unofficial degrees offered by single institutions alone or in collaboration with others. Annex III offers a listing of some of these continuing education courses.

9 Notes on research

In the past several years the Universidad de Granada has been conducting a study on research activities in the field of LIS performed in Spain, covering research carried out at universities, including doctoral theses and articles published in professional journals. The Jornadas sobre Investigación en Biblioteconomía y Documentación, organised by the School of the Universitat de Barcelona in September 1996\(^8\), furthered efforts in this area. One conclusion reached is that research on LIS in Spain is very atomised; that is, it is based for the most part on individual work. There are no consolidated research groups and until recently, the lines of research were not well defined. As a possible remedy, the recent

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6 The Universidad Complutense de Madrid has the diplomatura attached to the Escuela Universitaria de Biblioteconomía y Documentación and the licenciatura and the doctorate programmes to the Facultad de Ciencias de la Información.


8 The proceedings have not been published.
initiation of doctoral programmes might help to strengthen this aspect. Frias has recently published a study on this topic9.

In their 1996 work, Espelt and Pons10 discussed the lack of a proper technical background of many of the university lecturers that entered LIS programmes in the 1980s. A significant number of them were lecturers that had entered the LIS departments from other areas of specialisation, fundamentally in the humanities, frequently with little experience in libraries and information centres. This fact most probably contributed to the lack of expansion of LIS research in Spain. On the other hand, it is also true that a number of Spanish universities, as well as non-educational institutions, participate regularly in research projects sponsored either by the European Union, especially those of Directorate General XIII and its libraries programme, or by PLANICYT (Plan Nacional de I+D en Ciencia y Tecnología), the Spanish government programme for R+D support.

Annex IV contains a list of the main Spanish journals on information and research in LIS and Annex V consists of a list of the major conferences on LIS held by universities and professional associations.

10 Looking at the 21st century: current tendencies and prospects for the immediate future

The earlier sections of this article have centred on the principal aspects of the development and the current situation of LIS education in Spain. One can detect certain tendencies that allow us to explore the expectations for the near future. The following paragraphs comment on these tendencies and discuss the main points stressed in recently published studies regarding the training of librarians and their insertion into the professional job market.

Supply/demand relationship. The still-growing demand for LIS university programmes in Spain is somewhat higher than the supply. It is feared, however, that it will soon reach a saturation point, due to the possible slowing of the market demand, as well as to the impact of the decline in population that is already making itself felt in Spanish universities. Several universities have requested permission from the public authorities to introduce new LIS programmes. This is the case of public universities, such as Girona (diplomatura) and the Pompeu Fabra of Barcelona (diplomatura and licenciatura), as well as of new, private institutions such as the Universitat Internacional de Catalunya, that have now announced diplomatura studies for the 1999-2000 course but have not yet begun to offer the classes. At the same time, the number of students entering Spanish universities has begun to decline. A conflict is foreseen for universities in general, as the number of programmes continues to grow while in the near future the decline of the student population will be more marked. It remains to be seen how this decline will affect the demand side of different study programmes.

Pending items. Evaluation, co-operation, internationalisation. All of these are, in general terms, still pending issues in the LIS panorama in Spain. Apart from some specific reports that have not been made public, the evaluation of study programmes still remains to be undertaken. These programmes, so new in most universi-

ties and also having had to recently adapt to the curriculum reforms, deserve evaluations to help them ascertain their quality and efficiency, as well as to determine how well adapted they are to both social and market needs. As for co-ordination, co-operation between centres and lecturers is, at best, rudimentary. There is still no association of LIS teachers, and a distribution list in Internet, made up solely of LIS lecturers, is practically inactive. From time to time, there are some meetings held at the national level, though the participation has been uneven. Also, sporadic meetings have been held between directors and deans of schools and faculties, almost always when new studies were being established.

The extent of internationalisation of studies and of activities, at this moment, is not very significant, although certain centres participate in programmes of international exchange – especially of students – like the Universitat de Barcelona and Socrates-Erasmus programme within the European Union, or INTERCAMPUS, with Latin America. The exchange of lecturers is even more sporadic. An international approach to curricula, at least of some programmes or some courses, would help to encourage the exchange of students and lecturers, as well as to stimulate professional mobility, which is highly encouraged by the European Union.

Continuing education. Obviously there exists a need for co-ordination and evaluation of the quality of continuing education that is currently offered. The already mentioned study of Villagrá and others (1996) provides data regarding this aspect and offers a concrete proposal for evaluation, though it has not yet been carried out. Co-operation with professional associations in this area is absolutely indispensable. Even if the LIS programmes reach a saturation level, one expects that universities would be able to address the need for ongoing professional training by converting their existing teaching resources into programmes for continuing education. In fact, many universities now have centres of continuing education that already co-ordinate these activities.

New training systems. Distance learning has become a very promising concept due to the extent to which information and communication technologies have penetrated throughout society and into individuals’ lives and to the geographical dispersion of the population. The success of the inaugural course (1999-2000) of the licenciatura offered through a distance learning programme at the Universitat Oberta de Catalunya (Open University of Catalonia), confirms this interest. Even though there are no precise figures, it is known that the majority of the persons who signed up for this virtual higher degree programme are librarians with diplomatura degrees that are already integrated into the job market, as well as graduates coming from other subject backgrounds and


10 Espelt, Constanca; Pons, Amadeu: La formación de los profesionales de la documentación ante la sociedad de la información: evolución y perspectivas de futuro. In: Jornadas Españolas de Documentación Automatizada (5th: 1996; Cáceres) Sistemas de información: balance de 12 años de jornadas y perspectivas de futuro. Vol. 1, p. 239-257.
that are working in libraries or information centres or are interested in doing so. Traditional universities will soon have to consider developing distance learning courses or offering a hybrid solution combining classroom and distance learning.

**Increase in research.** Stimulating LIS research is another pending subject in Spain. The diverse subject backgrounds of the first LIS lecturers coming from other disciplines, the still incomplete consolidations of some LIS university departments, and the very recent implementation of the doctoral degree programmes all help to explain why LIS research in Spain is still in an embryonic stage. A certain distancing has been observed between the university enclave and the professional enclave in some regions, a situation that should be corrected in order to encourage the climate of collaboration necessary for establishing research projects.

Nonetheless, the increase in the number of doctorate programmes, the growth in the number of theses presented, and the co-operation taking place in specific LIS sectors (such as public libraries or university libraries) help to assure that research efforts gather and maintain the necessary momentum.

**Management and new technologies.** Management techniques and information technologies have become prominent in training programmes for librarians around the world. In the case of Spain, the demand for these two subjects is evident when reviewing the common themes of ongoing training courses. These same topics are also present in the university programmes. Technologies are treated on a very basic level in the curriculum at the diplomatura level. The contents are continually transformed and updated, because topics that required an introduction some years back (word processing techniques, for example) are already completely mastered by the incoming students. And if today it is still necessary to teach methods for navigating in Internet, such subjects most likely will not be needed in the near future, because they will have already been taught in primary or secondary schools. The licenciatura level includes more advanced concepts — especially those related to the processing of language, knowledge and information. It is worthwhile noting that information and communications technology industries offer new employment possibilities for professional information specialists. At the diplomatura level, management techniques are only introduced briefly, since these topics are fully developed at the licenciatura level.

**Co-operation with professional associations.** It is important to take into consideration the opinion of professionals themselves in everything touching upon LIS training. Librarians and information specialists in Spain have been rather concerned about training over the past years. It is very rare not to have the topic raised during a conference, congress, or other public debate. The questions normally asked are: Are librarians and information specialists receiving adequate training? What must future professionals become, and how can they be trained? Co-operation between the university and the profession as a whole is necessary for both sides, with positive results for all. In Catalonia, this co-operation has existed ever since the creation of the Escola de Barcelona. Evidence of this was the collaboration of the association of Catalan librarians in developing the most recent study plans, and in the agreements reached with many institutions for accepting student interns for on-site work experience. This type of cooperation should be encouraged on a national level.

**Labour market for librarians and information specialists in the future.** Different studies have unanimously made evident the usefulness of having training programmes adapted to the needs of the employment market. In public debates this question raises a protest: versatile, well qualified professionals are needed who are capable of adapting to new situations and confronting the challenges presented by the new knowledge/information society. The job market is no longer restricted to traditional libraries (public, university) but now include all types of information centres, both public and private. Employment opportunities are now expanding in the corporate sector where the role and value of information is gaining in importance. But it appears that graduates in other fields — such as business administration or telecommunications — have an easier access to this sector. On the other hand, public sector employment is expected to taper off, though this is unlikely to happen immediately, but rather only when the country has an adequate and stable public infrastructure. University libraries and public libraries are still in a phase of expansion in Spain.

**REFERENCE SOURCES ON THE STATE OF LIS IN SPAIN**


Fuentes, M. Eulàlia; Jiménez, M. Àngels; González, Alfons: Breu Universitat Complutense de Madrid Universitat Carlos III de Madrid grammes if any, and the web site addresses.

and the year they began, the topics of the doctorate pro-

grammes during the term 1999-2000. It includes the

universities offering LIS degree pro-

grammes during the term 1999-2000

Public and private universities offering LIS degree pro-

grammes during the term 1999-2000. It includes the

name of each centre, the official programmes offered

and the web site addresses.

A Public Universities

Universidad Carlos III de Madrid

Facultad de Humanidades, Comunicación y Documentación

Diplomatura (1990)

Licenciatura (1994)

Doctorate programme organised by the Departamento de Bi-

lioteconomía y Documentación on: Information science.

http://www.uc3m.es/uc3m/

Universidad Complutense de Madrid

Escuela Universitaria de Biblioteconomía y Documentación

Diplomatura (1996)

http://www.eubd.ucm.es/

Universidad Complutense de Madrid

Facultad de Ciencias de la Información

Licenciatura (1996)

Doctorate programmes organised by the Departamento de Bi-

lioteconomía y Documentación on: Theoretical, historical and

technological aspects and applications of mass media informa-
tion centres; Library science: basic essentials, technology and

applications.

http://www.ucm.es/info/

Universidad de Alcalá (Alcalá de Henares, Madrid)

Facultad de Ciencias de la Documentación

Licenciatura (1994)

Doctorate programmes organised by the Departamento de

Ciencias de la Computación on: Information, library science and

knowledge; Information processing: knowledge and information

eengineering

http://www.uah.es/informacion_academica/i...academica/

Universidad de Extremadura

Facultad de Biblioteconomía y Documentación (Badajoz)

Diplomatura (1994)

Licenciatura (1997)

http://www.unex.es/

Universidad de Granada

Facultad de Biblioteconomía y Documentación

Diplomatura (1983)

Licenciatura (1994)

Doctorate programme organised by the Departamento de Bi-

lioteconomía y Documentación on: Scientific information

sources

http://www.eubdi.ugr.es/fbd

Universidad de León

Facultad de Filosofía y Letras

Diplomatura (1991)

http://www.unileon.es/dp/abd

Universidad de Murcia

Facultad de Ciencias de la Documentación

Diplomatura (1988)

Licenciatura (1998)

Doctorate programme organised by the Departamento de Infor-

mación y Documentación on: Information science: current tech-
niques and methods

http://www.um.es/

Universidad de Salamanca

Facultad de Traducción y Documentación

Diplomatura (1987)

Licenciatura (1994)

Doctorate programme organised by the Departamento de Histo-

ria Medieval, Moderna y Contemporánea on: Methodology and

lines of research in LIS

http://exlibris.usal.es

Universidad de Zaragoza

Facultad de Filosofía y Letras

Diplomatura (1989)

Doctorate programme organised by the Departamento de Cien-

cias de la Documentación e Historia de la Ciencia on: Informa-
tion systems

http://wzar.unizar.es/servicios/

Universidade da Coruña

Facultade de Humanidades (Ferrol)

Diplomatura (1996)

http://www.udc.es/

Universitat Autònoma de Barcelona

Facultat de Ciències de la Comunicació

Licenciatura (1999)


Universitat de Barcelona

Facultat de Biblioteconomia i Documentació

Diplomatura (1915)

Licenciatura (1998)

http://www.ub.es/biblio

Universitat de València

Facultat de Geografia i Història

Diplomatura (1996)

http://www.uv.es/

Universitat Politècnica de València

Facultat d’Informàtica

Licenciatura (1997)

http://infoserver.upv.es/pla/i_tit2/65/index.html

B Private Universities

Universidad San Pablo-CEU (Madrid)

Facultad de Humanidades

Diplomatura (1994)

http://www.ceu.es/usp/pln/bidoc.htm

Universitat de Vic (Vic, Barcelona)

Facultat d’Humanitals, Traducció i Documentació

Diplomatura (1998)

http://www.uvic.es/fchtd/biblioteconomia.html

Universitat Oberta de Catalunya

Licenciatura (1999)

http://www.uoc.es

ANNEX II: Professional associations

Artxibozain, Liburuzain eta Dokumentazainen Euskal Elkartea AL-DEE = Asociación Vasca de Archiveros, Bibliotecarios y Documentalistas AVABD (Bilbao)

Fpastor@mails.cti.unav.es

Asociación Andaluza de Bibliotecarios AAB (Malaga)

http://www.aab.es

Asociación Andaluza de Documentalistas AAD (Sevilla)

http://www.sistelnet.es/aad/

Asociación Asturiana de Bibliotecarios, Archiveros, Documentalistas y Museólogos AABDOM (Oviedo)

Toledo@vmesa.cpd.uniovi.es

Asociación de Archiveros de Castilla y León ACAL (Salamanca)

http://www.exlibris.usal.es/aacal/
ANNEX III: Continuing education courses (first or second level university degree required)

This annex lists a sampling of courses offered at graduate level by some universities and other institutions as continuing education activities. University extension courses are not included, nor are the numerous monographic courses offered by associations, businesses or other entities.

Fundació Pere Tarrés (Barcelona)
- Reading and readers. Organised with Universitat Ramon Llull
- Fundació Universitària del Bages (Manresa, Barcelona)
- Techniques for archives and documents organisation. Organised with Escola de Gestió i Administració Pública de Catalunya and Universitat de Barcelona

Servei de Biblioteques Escolars L’Amic de Paper (Barcelona)
- School multimedia libraries

Universidad Carlos III de Madrid
- Master in information science

Universidad Complutense de Madrid
- Escuela Universitaria de Biblioteconomía y Documentación
- Information management and processing in private and public institutions; Music information sources; Book binding

Universidad Complutense de Madrid, Facultad de Ciencias de la Información
- Information science for graduates

Universidad San Pablo-CEU (Madrid)
- Archives

Universitat Autònoma de Barcelona
- Master on Archives. Organised with Associació d’Arxivers de Catalunya, Universitat de Girona and Departament de Cultura de la Generalitat de Catalunya
- Master in biomedical information sources. Organised with Departament de Documentació de l’Hospital de la Santa Creu i Sant Pau

Universitat Politècnica de Catalunya (Barcelona)
- New technologies for information access and management. Organised by: Fundació Politècnica de Catalunya with Escola Universitaria de Biblioteconomía i Documentació, Universitat de Barcelona

Annex IV: Main Spanish journals on information and research in LIS

A Journals issued by universities and other research institutions


Documentation of the ciencias de la información. Madrid: Universidad Complutense de Madrid, Facultad de Ciencias de la Información, Departamento de Documentación, 1976-. Anual. ISSN 0210-4210.

Revista de ciencias de la información. Madrid: Universidad Complutense de Madrid, Facultad de Ciencias de la Información, 1984-. Cuatrimestral. ISSN 0213-070X.

Revista española de documentación científica. Madrid: Centro de Información y Documentación Científica (CINDOC), 1977-. Cuatrimestral. ISSN 0210-0614.


B Journals issued by library associations


Unauthenticated
Bibliotheks- und Informationswesen. The interdependencies of library and information science with computer science, communication science, business management and cultural issues are analysed. Major functions of LIS education (training, education, research, PhD programmes – informatics/information technology, information/knowledge management, communication science) are discussed.

Recent transformations in society, economy, technology, management, and politics on Hungarian librarianship and LIS education, requiring a reconsideration and reinstitutionalisation of library science, libraries, and LIS institutions.

The paper analyses the situation of Hungarian librarianship, LIS education and research. It describes the effects of the recent transformations in society, economy, technology, management, and politics on Hungarian librarianship and LIS education. It also presents the interrelationships of LIS programmes with other programmes – informatics/information technology, information/knowledge management, communication science.

Research activities are analysed in close relation with international contacts. Examples of initiatives in open, distance learning are shown. Strategy and perspectives for the near future are described.

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ANNEX V: Major conferences on LIS held by Spanish universities and professional associations

This is not a comprehensive list. Only the main conferences that have been regularly held are included.

C Other
Educación y biblioteca: revista de documentación y recursos didácticos. Valencia; Tilde, 1989-. Monthly. ISSN 0214-7491.

Congreso Nacional de ANABAD. Organiser: Asociación Española de Archiveros, Bibliotecarios, Arqueólogos y Documentalistas. VII Congreso, April 1999, Toledo.
http://www.anabad.org/activida.htm
http://www.sistelnet.es/aad/jornada.htm
http://www.aab.es/7.htm
http://www.florida-uni.es/avei
http://www.cobdc.org