IFLA 2011
PUERTO RICO
13-18 August, San Juan

World Library
and Information
Congress:
77th IFLA
General Conference
and Assembly

Distance education as an element for supporting the LIS education development in Latin America

Patricia Rodríguez Vidal
National Autonomous University of Mexico
School of Philosophy and Letters
Open University and Distance Education System
México DF, Mexico

Abstract:

Use of Information and Communication Technologies (ICTs) has been incorporated in LIS education diverse Latin American LIS schools have developed implemented distance education programs online. Each one of these programs for distance education owns its particular characteristics, such as the courses that integrate it, the resources to support the learning activities, and the activities to achieve the learning objectives, among other ones. An advantage of distance education using ICTs is the creation of new learning settings, where it is eliminated the necessity of coincidence in space and time of professors and students. This feature allows the possibility of participation in programs and courses given not only within an institution, but in many institutions, improving in this way the student development. The main objective of this document is to present the basic features of LIS distance education programs existing in Latin America and to explore possibilities of sharing programs, professors, courses and learning resources, which would help to support a better LIS students formation, contributing in this way to the development of LIS education in Latin America countries.

Key words: Library education; Distance education; Latin America: Online programs.

Introduction

The present situation in Latin American countries is defined by the introduction of the technologies, which has caused that more regions are joining the virtual change. Respect, (Albornoz and Diez, 2002) point out the fundamental importance of the knowledge factor of its production, application, and use. As a consequence, the basic instrument for the modernization and innovation on these societies is the education and the important role that plays the virtual university.

The (e-aprendizaje, 2004) considers that "Actually, more than 70 million people obtain their education through Internet, and in a near future, the education of professionals in different subjects will be made this way". (p. 1). The higher education institutions are also using technologies, so that their online educational programs reach a greater number of students, within their own campus or in other places, such as their homes or their working places. A great number of virtual universities are providing their courses through Internet. As a consequence, more and more universities are using a modern way to teach their courses, and are guiding their students to learn through online education.

(López, 2004) cites in his article "La implementación de cursos en línea" quotes several authors as (Duart & Sangrá, 2000) and (Peters, 2002) who point out that the use of technologies in the universities is a challenge, but also an opportunity to achieve a significant turn in the teaching-learning processes addressed to the educational quality improvement. (Bates, 2000) mentions that without any changes in the teaching methods, the use of the technology are a burden for professors and students. (Barberá, 2001) tell us about that probably one of the more spread ideas in the educational environment is the support of the technology for online education, which is the cause of the interaction processes that take place, conditioning the possible experiences for the promotion of an adequate and efficient learning process. It is important to remember that these virtual spaces must be planned, managed and designed in order to the establishment and the support of the specific needs of its students' community; also it must not be forgotten that in the online education there is a combination of elements such as the binomial tutor/student relationship, platform and the didactic materials, among many others.

The online education

(García, 1994) points out that "The distance education is a bidirectional communication technological system, which may be massive, and which substitutes the personal interaction of the professor and the student in the classroom as a preferential means of teaching, due to the systematic and combined action of various didactic resources, and to the support of an organization and a tutorship that favors the student's independent and flexible learning process". (p.105).

At the same time, the LIS schools are showing a tendency to teach online; according to estimates reported by (The Sloan Consortium, 2009) mentions that "The total number of K-12 students participated in online courses in 2007-2008, an estimation of 1'030,000 students. This data represents an increase of 47% since 2005-2006". It shows that every day more and more schools participate in this new teaching concept through distance education. A proof of the above is the fact that "Many library schools offer courses, workshops and seminars through Internet" (Condrón, 2006).

These facts have influenced the LIS, which have experienced significant transformations in the last decades, and have undertaken the changes that have had a deep influence on library education (Durrance & Pattigrew, 1999). On the other side, the LIS schools must bear in mind the aspects concerning to the programs development; these must include knowledge and abilities for the education of students: LIS needs changes in the curriculum. (Van House & Sutton, 1996) state that schools are working in a dynamic and highly competitive environment which

means to be at the forefront, to adapt themselves to the technology as well as to our social situations; they also suggest that the information professional need to be prepared in institutions in which courses as computation, technology and pedagogy are taught. With a similar point of view, (Sutton, 1999) mentions that in library schools the number of programs on technology and management have increased in order to adapt themselves to the new educational environments.

1. Characteristics of online education

In this respect, the existing literature use online education and distance education as synonyms; some specialist consider them as teaching and learning situations in which the instructor and the student are geographically apart, and rely on electronic media (Portway & Lane, 1994, quoted by Keegan, 1996). Also, (García, 1994) considers them as "A new way of teaching in which the needs of online learning are taken into consideration; this way of learning includes not only multimedia elements in its online courses, but it also provides flexibility to the students so that they may study at any time and in any place. The students are allowed to learn and to acquire the more up to date information via Internet, without time restrictions. This is an evidence that the learning online process is being more used in higher education institutions".
(p. 105). From this point of view, the present trend in LIS schools in Latin America is to develop online programs that contribute to the formation of librarians in this modality. Thus, this new educational option is determined by a set of characteristics, among others:

- Physical separation between professor and student
- Interpersonal communication, allowing the information exchange and the dialog between professor and student, improving the tutorial and teaching functions.
- Development of collaborative works, sharing information and documents, transferring files, etc.
- Access to the self-learning information and contents, such as: the setup of evaluation and self-evaluation exercises, texts, hypermedia, audio and video sequences, electronic books and publications.
- The student is the center of an independent and flexible formation.
- It is an asynchronic two-way tutorial and communication process.

In order to describe in detail the approach of the online education in LIS schools, a series of elements such as programs, professors, courses, and learning resources must be taken into account, such as to acquire new technological knowledge and abilities for the acquisition of basic technologies; these new technological environments must be handled in an adequate and efficient way, as an alternative to improve the teaching quality through cooperation and exchanges, providing with ideas and contributions to support the new distance education environments within the LIS teaching.

2. Platforms as learning spaces

The online education requires a technological infrastructure representing the contents' supports and the services they provide the student for his distance education. This infrastructure consists in softwares that make easy the generation of teaching-learning environments; they are used for the development, management, and distribution of educational activities through the web. With the combination of didactic materials and communication tools, collaboration and educational management, it includes various resources such as interest lists, discussion debates, chats, etc. The students may access them through a personal code, in a platform equipped with the necessary tools to learn (communication, documentation, contents, interaction, evaluation plans, didactic strategies, etc.). By this we are talking about learning management platform or learning management system. (Muñoz, 2009) carries out an exhaustive analysis of the literature and quotes a series of authors as (Ruipérez, 2003) who mentions that "The learning management platforms, or e-learning platforms, consist in softwares as integrated packages (that is, composed by software modulus with independent functions); they include all the necessary logistics to be able to offer courses through Internet or an Intranet". For Marcelo, it is "a technological response that makes easy the learning process, starting from information of various nature (contents developed by the teacher or by the students, URL addresses, etc.), using the Internet communication resources (mail, forum, chat, videoconference) and at the same time supporting the cooperative learning in any place and at any time". Other experts as (Foix and Zavando, 2002) consider them as "those tools that, combined, provide us with an integrated solution in order to fill the education requirements based on the web contents generation, learning management, students follow-up, etc". (p.17). According to (Boneu, 2007) the platforms include the following basic characteristics:

- Flexibility.- Understood as the set of functions that allow the e-learning process to adapt itself easily in the organization in which it is to be developed.
- Interactivity.- It is necessary that the e-learning systems may process materials and resources with high levels of interactivity for the students.
- Escalation.- Ability of the e-learning platform to operate in small or large users groups.
- Standardization.- A standard platform means the ability to use courses carried out by third persons, so that the courses may also be available for other organizations that comply with that standard.

The platform tools are determined by types according to the designed functions, and may adapt themselves to the methodologies used by the teachers, as synchronic communication (chat) and asynchronic communication (e-mails or delivery systems), multimedia services (videoconferences, video, and blogs), among others. The present platforms offer a full range of tools and functions that allow the teacher to use them to carry out his/her educational functions. It is through the design of a learning space that the education activities may be carried out, as well as the evaluation and the didactic materials.

3. Programs in Latin America

The LIS schools are including the virtual spaces in their curricula, offering online programs in the following courses:

National University of La Plata. School of Humanities and Educational Science.

Bachelor's Degree in LIS	LIS Professor
Introduction to Librarianship and Information Science	Introduction to Library and Information Science
Information Units Management	Bibliographic Description I
Bibliographic Description	Bibliographic Description II
University Libraries and Information Services Evaluation	Information Service and General Reference
Collection Organization	Book and Libraries History
Information Units Organization	Collection Organization
Book and Libraries History	Information Units Management
Thesis Seminar/Workshop	Information Service and Specialized Reference
Information Service and Specialized Reference	Library Research
Information Services and General Reference	Information Units Organization
Communication Technology and Media	Information Users
Information Users	Special Didactics of Librarianship Teaching

University of Buenos Aires. School of Philosophy and Letters. Bachelor's Degree in LIS

Information Units Management
Human Resources Management
Collection Development and Access Services
Development of Research Projects in Library and Information Science Information Units Evaluation
General Information Sources
Humanities and Social Science Information Sources
Scientific and Technical Information Sources
Librarianship and Information Science Fundamentals
Libraries and Archives Preservation and Conservation Fundamentals
Book and Libraries History
Information Services and Products Marketing
Library and Information Science Research Methods
Cataloguing Principles
Seminar: Information Technology Advances
Reference and Information Services
Information Units Technical Services

National University of Córdoba, Argentina. School of Philosophy and Humanities. Bachelor's Degree in Librarianship and Documentation.

Introduction to the Information Science
Information Sources and Services I
Information Sources and Services II
Management of Information Resources and Services I
Technical Processes I
Technical Processes II
Book and Libraries History I
Information Users
Quantitative Methods

National University of Mar del Plata. School of Humanities.

Scholar Librarian	Bachelor's Degree in Librarianship and Documentation
Introduction to Information Science	Introduction to Information Science
Cataloguing I	Cataloguing
Classification I	Classification I
Reference	Reference
Bibliography and Text Selection	Information Units Management
Information Units Management	Informatics I
	Bibliography and Text Selection
	Specialized Reference
	Classification II
	Librarianship Seminar

National University of the Litoral. School of Juridical y Social Science. Bachelor's Degree in Librarianship

Information Sources
Collections and Services Development
Metadata
Users Studies
Documents Conservation
Information Units Organization
Librarianship and Information Science

National University of Misiones. College of Humanities and Social Science. Bachelor's Degree in Librarianship

Library Management I
Library Management II
Bibliography
Librarianship and Information Science Fundamentals

Introduction to Statistics
Information Resources and Library Services I
Information Resources and Library Services II
Thesis Workshop

University of the Nordeste. School of Humanities. Bachelor's Degree LIS, oriented to Librarianship

Theoretical Basis of Information Science
Documentary Description and Formats
Statistics
Documents Preservation, Conservation and Restoration
Indexation and Classification
Information Services and Reference
Data Basis System
Collections Development
Users Studies
Information Units Products and Services Marketing
Information Methodology
Research Seminar

University of the Quindio, Colombia. Information Science and Library and Archival Documentation

Information Science and Library and Archival Documentation
Fundamentals
Standardized Bibliographical Description
Introduction to Bibliography
Information Services
Collection Development
Information Units Management
Classification System

Data Bases
Introduction to Research

University of Costa Rica. College of Education. Library and Information Science School. Bachelor's Degree in LIS

Research Methodology
The information User
Research Workshop

University of the Republic, Uruguay. University School of Librarianship and Related Science. Bachelor's Degree in Librarianship.

Introduction to Librarianship
Bibliography I
Statistics
Information and Reference Service I
Management I
Bibliography II
Classification
Management II
Technical Processes
Bibliography II

University of Zulia, Venezuela. Distance Education System. School of Humanities and Education / Library and Archives School

Introduction to Librarianship
Introduction to Data Processing
Research Methodology
Management Principles
Information Sources
Technical Processes in Libraries

Information Units Organization I
Development of Research Projects
Information Units Users and Services
Information Units Organization II
Professional Practice I: Technical Processes in Libraries
Professional Practice II: Research Seminar

National Autonomous University of Mexico (UNAM). School of Philosophy and Letters. Open University and Distance Education System. Bachelor's Degree in LIS

Data Bases
Librarianship Fundamentals
Document Organization Fundamentals
Book and Libraries History I and II
Introduction to Research
Computation Applied to Librarianship
Thesis Seminar I and II
Quantitative Research Methods
Reference I and II
Human Resources Management
Information Marketing
Collections Development
Information Units Evaluation
Information Users

University of Guadalajara, Mexico. Virtual University System. Bachelor's Degree in Librarianship

Human Resources Management
Analysis of Information Sources in Social Sciences and Humanities
Descriptive Cataloguing
Contextualization of the Information Sciences

Collections Development I and II
Diagnosis of the Users' Formation Requirements
Development of the Degree Protocol Project
Evaluation of Information Sources
Organization of the Documentary Information I and II

4. Proposal for LIS schools

It is very important to consider the creation of the Southern Common Market (Mercosur) which took place under the Asuncion Treaty in March 1991.Later with the signature in 1994 of the Ouro Preto Protocol it was consolidate as an institutional structure and into force in 1995. The Mercosur is integrated by Argentina, Brazil, Paraguay and Uruguay and from 1996, Chile and Bolivia participate as associate members. From 1996 to 2004, a series of meetings took place among the Mercosur directors and the professors of LIS, in order to come to an agreement on the curricular compatibility, the professional formation, and the role of the LIS professors in the Mercosur. The Association of LIS Schools of the southern part of the American continent (ASEBCS) formed by Argentina, Chile, Paraguay and Uruguay, was created, with the objective of institutionalize its integration at the regional level, and to establish cooperative actions in teaching, extension and research in order to solve the common problems of this region; the same principles apply in the online education.

Starting from these curricular compatibility principles, in the eleven LIS schools that have established online programs there are courses that have different names, but develop the same contents. For instance, the University of La Plata includes Bibliographic Description I and II (in its two professional degrees; the University of Buenos Aires includes Cataloguing Principles; the University of Córdoba, Technical Processes I and II; the University of Mar del Plata, Cataloguing and Classification I; the University of the Litoral, Metadata; the University of the Nordeste, Document Description and Formats; the University of the Quindio, Standardized Bibliographic Description; the University of the Republic, Technical Processes; the University of Zulia, Technical Processes in Libraries: in the UNAM and in the University of Guadalajara, Principles of Descriptive Cataloguing. These courses are taught in all of their LIS schools, a fact that may help the programs exchange among the different institutions.

We also have found that there are courses focused on the Classification Systems (LC, Dewey), as well as on Indexation: among them, are the Universities of Mar del Plata, of the Nordeste, of the Quindio, of the Republic, and the UNAM. Due to the characteristics of their contents it may be interesting to know the classification process in the LIS schools.

As for Book and Libraries History I and II, five universities (La Plata, Buenos Aires, Córdoba, UNAM and Guadalajara) include it in their courses.

The course Introduction to Library and Information Science, is included as a part of their curriculum in the following institutions: University of La Plata; Introduction to Information Science, in the University of Córdoba and Mar del Plata; Library and Information Science, in the University of the Litoral; Fundamentals of Library and Information Science, in the University of Misiones; Theoretical Basis of Information Science, in the University of the Nordeste; Fundamentals of Library and Information Science; in the UNAM, Introduction to Library and Information Science, in the University of Zulia; Contextualization of Information Science, in the University of Guadalajara.

Information Units Management is included as a course in the universities of the Plata, Buenos Aires, Mar del Plata, and Quindio, as well as in the University of Misiones as Library Management I and II. Evaluation of Libraries and University Information Services is included in the University of La Plata, and Evaluation of Information Units in the University of Buenos Aires and the UNAM.

Other courses as Human Resources Management are included in the universities of Buenos Aires, Córdoba, UNAM, and Guadalajara The Thesis Seminar I and II in the UNAM; Thesis Seminar/Workshop in Mar del Plata; Development of Research Projects and Development of Research Projects in Librarianship and Information Science in the universities of Zulia and Buenos Aires, respectively; Thesis Workshop in Misiones; Research Seminar in the University of the Nordeste; Research Workshop in Costa Rica; Professional Practice II: Research Seminar in Zulia; Development of the Degree Protocol Project in Guadalajara; Information Methodology in Costa Rica; Introduction to Research in Quindio.

On the other hand, we found similar denominations in courses as Reference Service and specialized Information and Reference Service and General Information Service in the University of La Plata; Reference and Information Service in the University of Buenos Aires; Information Sources and Services I and II in the University of Córdoba; Reference and Specialized Reference in the University of Mar del Plata; Information Sources in the University of the Litoral; Information and Reference Services in the University of the Nordeste; Information Services in the University of the Quindio; Information and Reference Service in the University of the Republic (Uruguay); Information Sources, in Zulia; Reference I and II in the UNAM; Analysis of Information Sources in Social Sciences and Humanities and Evaluation of Information Sources in the University of Guadalajara.

The course Information Users is included in the Universities of La Plata, Córdoba and the UNAM; and Diagnosis of the Users' Formation Requirements in Guadalajara; Zulia includes it as Information Units Users and Services.

The contents of the Development of Collections course are included in the Universities of Buenos Aires, Litoral, Nordeste, Quindio, UNAM, and Guadalajara.Among the advantages found in some online programs are that they include some courses not mentioned in other Latin American schools. For instance Libraries and Archives Preservation and Conservation Fundamentals in Buenos Aires; Documents Preservation, Conservation and Restoration in Nordeste; Documents Preservation in the University of the Litoral and the UNAM; Didactics of Librarianship in the UNAM, and Special Didactics in LIS Teaching, in La Plata; Information Resources and Library Services I and II in Misiones; Library and

Information Services in the UNAM. Also, as for Marketing of Information Services and Products in the University of Buenos Aires; Information Marketing in the UNAM; and Marketing of Information Units Products and Services in Nordeste. As mentioned above, only some of the online programs include them.

We also found that some contents are related, as Informatics I in Mar del Plata; Introduction to Data Processing in Zulia; Data Bases System in Nordeste; Data Bases in Quindio and the UNAM. There are programs with similar contents as Technology and Communication Media in La Plata; Seminar: Advances in Information Technology in Buenos Aires; Information Technology in Libraries in the UNAM.

Also Research Methods in Library and Information Sciences in Buenos Aires; Quantitative Methods in Córdoba; Introduction to Statistics in Misiones; Statistics in the Universities of the Nordeste and Uruguay; Quantitative Research Methods in the UNAM:

Some courses may be studied as equivalents in the corresponding curricula, when are, those courses that are not included in the curriculum of each of the online programs in the library schools. These is the case of courses as Collection Organization, Information Units Organization I and II; or Bibliography, Introduction to Bibliography, Bibliography and Text Selection, which are equivalent with other programs and may favor the flexibility of the present online educational model.

The virtual mobility constitutes a great help, since it may allow students to move inside the virtual area in order to study the courses with compatible contents with other programs, provided by an international collaboration been established among the LIS schools. The main purpose of this mechanism is that the students may be registered in their own institution which also means having access codes to the courses in those institutions in which the interchange channels allow the crediting of courses that contribute to the formation of the future professional and to share educational resources for the acquisition of information through virtual media.

In front of this overview we propose the cooperation in online education of the Latin American LIS schools. Based on the available information we observe that there are key elements in the distance education modality. It is important to emphasize that universities have virtual fields which undoubtedly allow the creation of collaboration mechanisms among the institutions. All courses may be shared, because they are included in the platform, thus allowing to share the educational model of these librarianship schools through interinstitutional agreements using their courses access codes, so that these may be studied by the students of those universities. In the other hand, the materials that are fully online, as the Bachelor's Degree in Librarianship and Information Studies of the UNAM, may also tighten cooperation bonds in order to share didactic materials in those online programs included in the platform, or the acquisition of materials in CD-ROM format. There are also open educational resources as E-Prints, E-Journals, E-LIS, university magazine, the magazine of the university's Library Research and Humanindex. In the virtual field we can use technological tools such as communication media to interact at chat rooms, e-mail to socialize through participation or comments of readings analized previously by students.

Conclusions

The Latin American LIS schools must strengthen their efforts related to the interchange and the production of a proposal in which the criteria of each one to develop their courses and to share their programs, professors, courses, and educational resources are met.

The Latin American countries have worked to carry out meetings and the creation of the Mercosur, in order to strengthen the cooperation agreements at the international level to establish mechanisms that allow the interchange of online programs among the LIS schools, a fact that will help those institutions that still lack the online modality.

The LIS schools are working to change their curricula, to include the technological infrastructure required to work in the educational virtual field, and to increase the cooperation between them to take advantage of the courses already developed in some schools.

The LIS schools in Latin America must take advantage of the technology in order to keep a close communication among their equals, to work together and to establish a series of strategies in order to uniform the contents of the online programs and also to assign a unique name to their courses to develop compatible areas in all of their Bachelor's Degrees.

The professors responsible of distance learning must be valued; their experience in online teaching is important for the establishment of cooperative agreements with the teaching staff, which may cut down the costs of the participant institutions. In order to avoid students to register in any other Latin American university than its own, institutional policies must be established so every school must register the students in their own university.

Bibliography

Absysnet.com (2005) Universidades dónde estudiar: Iberoamérica. Disponible en línea. http://www.absysnet.com/recursos/recuniversidades.html
[Consultado: 15 de mayo de 2011

Albornoz, M y Diez Hochleitner R (2002) La universidad ante la innovación : aprender para el futuro. Madrid : Fundación Santillana.

Anselmi, Silvia Cecilia (69th : Berlín : 2003) Situación actual de la enseñanza de la bibliotecología a nivel universitaria en Argentina. World Library and Information Congress : 69th IFLACouncil.

Barberá, E (2001) La interacción es la clave de los procesos de enseñanza y aprendizaje en los contextos virtuales instruccionales. En: La incógnita de la educación a distancia (pp. 157-185). Barcelona: Gedisa.

Bates, T (2001) Cómo gestionar el cambio tecnológico: estrategias para los responsables de centros universitarios (p.159). Barcelona: Gedisa

Boneu, Josep M (2007) Plataformas abiertas de *e-learning* para el soporte de contenidos educativos abiertos. Contenidos educativos en abierto: monográfico en línea. *Revista de Universidad y Sociedad del Conocimiento.* 4(1). Disponible en línea: http://www.uoc.edu/rusc/4/1/dt/esp/boneu.pdf

Condrón, L (2006) Online continuing education. Cataloguing & Clasiffication Quarterly, 42, p.3

Durrance, J.C & Pattigrew K (1999). KALIPER: a look library an d information science education at the turn of a new century. Bowker Annual Library and Book Trade Almanac, 44, 287.

El e-aprendizaje (2004). http://tecnología.monster.es/artículos/e_aprend
[Consultado: 12 de mayo de 2011]

García Aretio, Lorenzo (1994) La educación a distancia hoy. Madrid: UNED. p.105.

García Aretio, Lorenzo (2001) *La educación a distancia. De la teoría a la práctica.* Barcelona: Ariel.

García Orozco, Javier Francisco (2007) El desarrollo de competencias formativas en línea, en bibliotecología y ciencias de la información. Revista AIBDA. 28(1), pp.1-19.

Keegan, M (1996) Fundamentations of distance education, p. 45

King-Sing, Cheung (2009) A review on functional features of e-learning platforms in the continuing education context. International Journal of Continuing Education & Lifelong Learning. 2(1), pp.103-116.

López de la Madrid, María Cristina (2004) La implementación de cursos en línea en una universidad presencial: caso Centro Universitario del Sur.
Revista Iberoamericana de Educación (pp.1-14).
http://www.rieoei.org/deloslectores/1198Lopez.pdf
[Consultado: 18 de mayo de 2011]

Muñoz Carril, Pablo César y Mercedes González Sanmamed (2009) Definición y evolución de las plataformas de e-learning. En: Plataformas de teleformación y herramientas telemáticas (pp.17-21). Barcelona : Universidad Oberta de Catalunya.

__ __ __ __ (2009) Principales características, herramientas y funcionalidades de las plataformas de e-learning. (pp.29-37). Barcelona : Universidad Oberta de Catalunya.

Oliva, Guillermina y Beatriz Graciela Banno (2006) El sistema de educación abierta y a distancia de la Universidad Nacional de Mar del Plata. Pasado, presente y una proyección a futuro. Revista Iberoamericana de Educación a Distancia. 9(1-2), pp.215-255.

Sena Correa, Emilce Noemí (2011) El Mercosur hacia la sociedad de la Información. Disponible en línea: http:capim.ibict.br/index.php/ciinf/article/viewFile/114/95 (Consultado: 17 de mayo de 2011)

Souto Moure, Alejandra y Raquel Alonso Doval (2006). Formador de teleformadores: claves para diseñar, elaborar y aplicar un programa de aprendizaje electrónico con éxito. España: Ideas Propias. 126 p.

Sutton, S.A(1999) The panda syndrome II: innovation, discontinuous change, and LIS education. Journal of Education for Library & Information Science, 40, p.39.

The Sloan Consortium of Institutions and Organizations (2009) Learning on demand: online education in the United States, 2009. Disponible en línea: http://sloanconsortium.org/publications/survey/learning_on_demand_sr2010 (Consultado: 7 de mayo de 2011).

Universidad de Buenos Aires. Facultad de Filosofía y Letras (2011) Plan de estudios de la Licenciatura en Bibliotecología y Ciencias de la Información http://www.uba.ar/download/academicos/o_academica/carreras/lic-bibliotecologia.pdf. (Consultado: 18 de mayo de 2011)

Universidad de Buenos Aires. Facultad de Filosofía y Letras (2011) Bienvenidos al campus virtual de la Facultad de Filosofía y Letras http://campus.filo.uba.ar/. (Consultado: 18 de mayo de 2011)

Universidad de Buenos Aires. Facultad de Filosofía y Letras (2011) Bienvenidos al campus virtual de la Facultad de Filosofía y Letras. http://campus.filo.uba.ar/mod/resource/view.php?id=8647 (Consultado: 26 de mayo de 2011)

Universidad de Costa Rica. Facultad de Educación. Escuela de Bibliotecología y Ciencias de la Información. http://www.ebci.ucr.ac.cr/archivos/planes_estudio/lic.pdf (Consultado: 24 de mayo de 2011)

Universidad de Guadalajara Virtual (2011). Plan de estudios de la Licenciatura en Bibliotecología. http://www.udgvirtual.udg.mx/interior.php?id=289 [Consultado: 13 de mayo de 2011]

Universidad de Guadalajara Virtual. (2011)Manual del metacampus (estudiante) Disponible en línea. http://www.udgvirtual.udg.mx/manual_estudiante/primera_pagina.php [Consultado: 12 de mayo de 2011]

Universidad de Uruguay. http://eva.universidad.edu.uy/course/category.php?id=85 [Consultado: 15 de mayo de 2011]

Universidad de Zulia (2011) Sistema de educación a distancia. Escuela de bibliotecología y archivología: aula virtual.
http://www.virtual.luz.edu.ve/course/category.php?id=86
[Consultado: 15 de mayo de 2011]

Universidad del Quíndio, Colombia. Facultad de Humanidades. http://uv.uniquindio.edu.co/campusv/index.php?option=com_wrapper&view=wrapper &Itemid=173&lang=es. (Consultado: 25 de mayo de 2011)

Universidad del Quíndio. Facultad de Humanidades. Licenciatura en Bibliotecología http://uv.uniquindio.edu.co/campusv/wrappers/programasVirtuales/plancidba.PNG. (Consultado: 24 de mayo de 2011)

Universidad Nacional Autónoma de México. Facultad de Filosofía y Letras. Sistema Universidad Abierta y Educación a Distancia (2009). Proyecto de implantación en la modalidad de educación a distancia para el Sistema Universidad Abierta de la Licenciatura en Bibliotecología y Estudios de la Información. Documento de trabajo. México : UNAM, FFyL, SUAyED.

Universidad Nacional Autónoma de México. Facultad de Filosofía y Letras. Plataforma Licenciatura en Bibliotecología y Estudios de la Información: modalidad a distancia. Disponible en:
http://www.cuaed.unam.mx/suayed/bibliotecologia/
[Consultado: 19 de mayo de 2011]

Universidad Nacional de Buenos Aires. Facultad de Filosofía y Letras (2011) Licenciatura en Bibliotecología y Ciencia de la Información http://www.uba.ar/download/academicos/o_academica/carreras/lic-bibliotecologia.pdf (Consultado: 26 de mayo de 2011)

Universidad Nacional de Córdoba, Argentina. Facultad de Filosofía y Humanidades (2011) Plan de Estudios de la Licenciatura en Bibliotecología y Documentación. http://www.ffyh.unc.edu.ar/texto.php?seccion=oferta_bibliotecologia&colorlink=FE37 0B. (Consultado: 17 de mayo de 2011)

Universidad Nacional de Mar del Plata. Facultad de Humanidades (2011). Profesor/a en Bibliotecología y Documentación http://www.mdp.edu.ar/humanidades/documentacion/planlicbibydoc.html
 (Consultado: 17 de mayo de 2011)

Universidad Nacional de Mar del Plata: Facultad de Humanidades Departamento de Documentación. (2011) Plan de Estudios – Licenciatura en Bibliotecología y Documentación
http://www.mdp.edu.ar/humanidades/documentacion/planlicbibydoc.html
(Consultado: 19 de mayo de 2011)

Universidad Nacional de Misiones. Facultad de Humanidades y Ciencias Sociales. Departamento Bibliotecología. http://www.fhycs.unam.edu.ar/content/view/32/41/
(Consultado: 25 de mayo de 2011)

Universidad Nacional de Misiones. Facultad de Humanidades y Ciencias Sociales. Departamento Bibliotecología
http://aulavirtual.fhycs.unam.edu.ar/index.php?category=BIBLIO
(Consultado: 25 de mayo de 2011)

Universidad Nacional del Litoral. Facultad de Ciencias Jurídicas y Sociales. Educación a Distancia. Licenciado en Bibliotecología
http://www.fcjs.unl.edu.ar/files/contenido_files/157.pdf
(Consultado: 24 de mayo de 2011)

Universidad Nacional del Nordeste. Facultad de Humanidades. Licenciatura en Ciencias de la Información con orientación en Bibliotecología
http://hum.unne.edu.ar/academica/carreras/bbliotecologia.pdf
(Consultado: 25 de mayo de 2011)

Universidad Nacional de la Plata. Facultad de Humanidades y Ciencias de la Educación (2011) Bienvenidos al campus virtual
http://campus.fahce.unlp.edu.ar/course/category.php?id=3
(Consultado: 17 de mayo de 2011)

United States. Sloan Consortium (2009). K-12 online learning.
http://sloanconsortium.org/sites/default/files/k-12_online_learning_2008.pdf
(Consultado: 7 de mayo de 2011)

Van House, N & Sutton S.A. (1996). The panda syndrome: an ecology of LIS education. Journal of Education for Library and Information Science, 41, p.56