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# A Strategy for Training on Digital Records Preservation in Mexico

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## Introduction

This project is directly derived from the InterPARES 3 objectives and presents a concrete plan of action for existing archives or archives / records units within organizations that have the task of safeguarding bodies of digital records that are to be maintained over the long term. The aim of this paper is to explore the best strategy to introduce courses related to digital records and their preservation within teaching modules for in-house training programs, continuing education workshops, and within academic curricula in educational programs in Mexico. First, the paper will analyze the current situation, and follow this with a strategy to develop different options for education and training and the mechanisms needed to involve different partners in such a strategy.

## Current Situation

### **Formal education on digital records and archives in Mexico**

Professional education for archival sciences and records management in Mexico involves three distinct career tracks at the university level: (1) the archival sciences career at the National School of Library and Archival Sciences in Mexico City, (2) the documentary information sciences career at the School of Humanities of the University of the State of Mexico and in the University of Guadalajara and (3) the archival sciences career at the School of Information Sciences at the University of San Luis Potosí. Other career options in Library and Information Sciences have a certain relationship with archival studies. At the high school level, for example, there is an option to obtain a diploma as a technician for the management of documentary information systems at the College of Sciences and Humanities of the National Autonomous University of Mexico (UNAM), as well as in some other technical colleges.

In reviewing the curricula of the three professional careers, the TEAM found that there are no specific courses related to digital records or their preservation, although it did note the presence of courses like archives automation or systems design.

National School of Library and Archival Sciences ( <i>Bachelor in Archival Sciences</i> )	Autonomous University of the State of Mexico ( <i>Bachelor in Information Sciences and Documentation</i> )	University of Guadalajara ( <i>Bachelor in Information Sciences</i> )	Autonomous University of San Luis Potosí ( <i>Bachelor in Archival Sciences</i> )	Autonomous University of Chihuahua ( <i>Bachelor in Information Sciences</i> )
<ul style="list-style-type: none"> <li>• Computing practical tools</li> <li>• Systems theory</li> <li>• Networks within the information environment</li> <li>• Systems analysis and design</li> <li>• Information storage and retrieval</li> <li>• Archives automation seminar</li> <li>• Archives preservation and restoring</li> </ul>	<ul style="list-style-type: none"> <li>• Systems General Theory</li> <li>• Workshop of automation of documentary collections 1</li> <li>• Workshop of automation of documentary collections 2</li> <li>• Preventive document preservation</li> </ul>	<ul style="list-style-type: none"> <li>• Information Technology</li> <li>• Information systems design</li> <li>• Data bases</li> <li>• Introduction to telematic networks</li> <li>• New information technologies</li> <li>• Telematic networks</li> </ul>	<ul style="list-style-type: none"> <li>• Information and communication technologies</li> <li>• Technologies management and implementation</li> <li>• Automation projects</li> <li>• Archival resources management</li> <li>• Archives preservation</li> </ul>	<ul style="list-style-type: none"> <li>• Archives and records</li> <li>• Information Technology</li> <li>• Information systems design</li> <li>• Preservation and conservation of archives and records</li> <li>• Information sciences soft-ware evaluation</li> </ul>

The overall curricula offerings from the above mentioned schools are related mostly with studies of records and archives in traditional contexts, and concepts like “records and archives fonds automation” generally refer to the development of records-creation systems or to the development of records databases and digitization processes for converting archives. Although it is relevant for records managers and archivists to learn about Information Technology (IT) and about Computer Science, it seems that IT and Computer Science courses are offered in lieu of archival courses on digital records and their preservation. In fact, all courses related to preservation focus on traditional media.

There appears to be no structured program for in-house training and continuing education workshops for those who are already dealing with digital records and other digital materials. The TEAM found only isolated efforts which, unfortunately, lack planning and, therefore, have very little impact within the archival community. Therefore—as is common to other regions and countries—digital records usually are under the control of information technology professionals who possess little or no knowledge of formal archival practices and organizational culture useful for the proper creation, management and preservation of digital materials.

As well, many governmental, educational, and private organizations are already creating and maintaining digital records without having proper policies, procedures and other regulations in place to ensure their long-term preservation.

In response to this situation, the Mexican Federal Law of Archives (whose approval by the Senate is still pending, although it has already been approved by the Chamber of Representatives in Mexico) directs the National General Archive to establish guidelines for the use of creation and preservation systems for traditional and digital records, and also requires agencies to develop policies and guidelines for the control of digital records through the application of standardized archival instruments (classification schema, disposition tables, etc.) already in use for traditional records.

It is also worth mentioning that the Mexican Federal Law for Transparency and Access to Governmental Information, which also addresses the protection of personal data and confidential information, specifies that records and archives must be properly organized. This Law also encompasses digital records.

Bearing in mind these issues, TEAM Mexico decided to design a strategy to address the lack of knowledge that prevails in relation to digital records and their preservation.

### ***Phase 1: Acquire knowledge of digital records and preservation training and education from others***

To develop strategies for in-house training programs, for continuing education workshops, and for academic curricula in higher education, TEAM Mexico is reviewing the topics, instruments and literature that others are already using for these purposes and choosing and adapting what it feels is best for the Mexican context.

As for in-house training programs, the TEAM is reviewing the programs and materials that have been already developed by:

- The InterPARES Project
- The International Council of Archives (ICA)
- The Electronic Records Archives of the National Archives and Records Administration (ERA-NARA)
- The National Archives of the United Kingdom
- The International Records Management Trust (IRMT)
- The Society of American Archivists (SAA)
- Catalonia Archivists Society

For educational curricula, the TEAM is looking at the academic curricula of the following universities:

- The University of British Columbia
- University of Barcelona,
- University of Michigan
- Glasgow University
- Carlos III of Madrid University
- Salamanca University
- La Salle University of Colombia

Also the other IP3 International Alliance TEAMS will be consulted as needed and the programs and curricula developed by TEAM Mexico will be disseminated among all the TEAMS.

### ***Phase 2: Development of course content***

In this phase, TEAM Mexico will design the course content for in-house training and continuing education workshops as well as for academic curricula, ranging from the general to the specific (that is to say, that content will first be developed for general knowledge of digital records and their preservation, followed by the development of courses on more specific topics).

Currently, TEAM Mexico already is developing course content designed to provide state-of-the-art overviews using materials from IP2, as well as standards and best practices from the ICA, ISO, OAIS and MoReq2. Here it is important to mention that the TEAM has to develop course content on the nature of digital records and archives plus content related to preservation due to the current lack of course content on these issues, as mentioned earlier. With these materials the TEAM will be able to train instructors and teachers who, by encouraging them to pursue a continuing self-learning strategy, it is expected will help the TEAM to develop specific course content on preservation and other issues related to digital records, such as

computing and IT, organizational culture, contemporary archival and diplomatics theory and practice, public service management, local archival and records regulation, access to information, privacy and copyright issues. The main idea is to have required general courses that will be useful in any type and at any level of training or education, and selective courses that can be used whenever they are needed to help create a “critical mass” of training instructors within these topics.

Initially, the TEAM foresees the following target audiences for the in-house training programs and continuing education workshops:

### ***1. Training for those who are already creating, maintaining or preserving digital records or archives***

In this scenario, the training will be more practical than theoretical and here the TEAM expects to target four main audiences: (1) archivists, librarians and any other professionals whose primary responsibility is to ensure permanent preservation of trusted records; (2) computing and IT professionals already working around archives to whom specific topics on archival and organization culture will be introduced; (3) other professionals with records management and archives knowledge, or whose work involves digital archiving, to whom certain themes on information technologies should be introduced as well; and (4) a mixed group of these three audiences from whom topics on archival and organizational culture, and information technologies will be provided.

### ***2. Training for auditing professionals***

This audience needs general as well as specific knowledge that can help them to audit records and archives systems of any kind.

### ***3. Training for specific needs***

In this situation, courses will address specific needs, such as the implementation of a recordkeeping system or of a preservation system.

At the same time that the TEAM is developing teaching modules in the three streams (i.e., for in-house training programs, for continuing education workshops, and for academic curricula), it will be constructing a “marketing” strategy to introduce effectively these teaching modules.

Although TEAM Mexico is composed of professionals from different institutions, most belong to the National Autonomous University of Mexico (UNAM). Moreover, at the present time, the TEAM and its research projects receive primary support from the University Center for Library Sciences Research (CUIB) of UNAM. Therefore, the TEAM is building its “marketing” strategy around this center of the university, using it as a “lever” to help realize its objectives.

The Center has a vested interest in this strategy for several reasons:

First, the Center is co-responsible, along with the Faculty of Philosophy and Belles Lettres of UNAM, for the Masters and Ph.D. programs in Library and Information Sciences. The director of TEAM Mexico is also a member of the Tutorial Advisory Committee for the UNAM Graduate Library Sciences Studies. These facts will facilitate the introduction of the academic material prepared by TEAM Mexico into the academic curricula of these graduate studies.

Second, the Center already has a long tradition of offering continuing education courses and workshops. Throughout the year, the Center usually offers, to the academic and professional communities, programs for continuing education and workshops related to library and information sciences across a very wide range of subjects. So the academic and professional information-related communities look forward to these programs, paying special attention to new ones. Over the years, the Center has established the capacity to easily attract students to these courses. Usually they are full and many times they have to be repeated to accommodate all the applicants. The Center is now expressly willing to expand its course offerings and field of action to archival courses and workshops. These facts will enable TEAM Mexico to develop and to impart the continuing education programs prepared by the TEAM, taking advantage of the moral authority and prestige of the Center in these activities and, thereby, accelerating the penetration of these courses to the archival and information communities. In the beginning, members of TEAM Mexico will be the instructors, trying at the same time to train new instructors.

A third reason why the Center has a vested interest in this strategy is that, being the main research center within the field of information sciences in Mexico and probably in all Latin America, the Center is frequently required by many governmental and private sector institutions to act as an advisor and consultant in specific information management problems. Often, the Center acts like an “outsourcer” in business intelligence practices and projects related to information management. Many times, within this context, these institutions request from the Center specific in-house training programs, expressly designed and delivered by the Center’s researchers and professionals. Thus, the Center has a strong tradition in designing, constructing and delivering these kinds of programs. Taking advantage of this fact, TEAM Mexico is already prepared to act as a consultant for specific archives preservation problems and, consequently, for the design of in-house training programs aimed at existing archives or archival / records units that are responsible for the safe-keeping of records to be preserved over the long term.

For all these reasons, the Center is well positioned to act as the “headquarters” for the TEAM Mexico teaching modules.

## **Specific Goals**

The TEAM’s specific goals are as follows:

**Regarding formal education,** TEAM Mexico initially intends to introduce into the curriculum of the Masters Degree in “Information Sciences and Studies” of UNAM one specific archives course on long-term digital preservation. In the ensuing years, a series of more specific and varied courses with topics related to these subjects will be introduced to give the Masters Degree students an option to specialize in archival digital preservation. This kind of thing already is being done with other specialties where students must take five obligatory subjects from a total of nine, and then four optional subjects from among a wide variety of available topics to receive a specialized degree. The TEAM’s goal is to prepare, in the short term, a complete set of these “specialty subjects” that will offer students a new, thorough and very specific specialty in long-term digital preservation.

**Regarding the bachelor’s level,** the TEAM is planning to do something similar. First, it plans to prepare a specific course for the library sciences students related to long-term digital preservation. This will be easy since many of the professors who teach at the graduate level also teach at the undergraduate level. Second, the TEAM plans to prepare some academic courses and to present them to the National School of Library and Archival Sciences in Mexico City. This second step will not be as immediate or as easy to implement, since this particular school is controlled by the Federal Ministry of Education and not UNAM. The goal in this case will be to interest the school to integrate gradually these courses into its curricula while at the same time training some of its professors to deliver the courses.

**Regarding continuing education,** as already mentioned, the TEAM is working to design a general workshop dedicated primarily to enhancing awareness about long-term digital preservation. As well, several workshops addressing different subjects at different levels will be prepared and issued this year and in the coming years through the Center for Library Sciences Research at UNAM for the purpose of creating a “critical mass” of professionals in these subjects. These workshops will be between 10-40 hours each.

A wide variety of courses is desirable to be able to teach many different aspects about digital preservation. When the set of courses reaches a certain number with sufficient breadth of subject coverage, they will be collated into a “diploma” course of about 150-200 hours. In the Mexican working environment, although these “diploma” courses have no curricular value within the universities, they are nevertheless highly valued by the professionals and considered by employers as providing a degree of “high specialization;” thus, they are frequently requested with full attendance. Professionals prefer, of course, to get a diploma from highly rated institutions, since they are much more valuable in the eyes of employers. UNAM, the University of Mexico, is the highest rated university in the Spanish-speaking world (this includes Spain and the whole of Latin America) and is among the top 200 universities in the world according to various independent rankings. Because of this, curricular and non-curricular diplomas from UNAM are most highly valued and requested. This is an advantage that the TEAM will try to use in its favor.

**Regarding in-house training programs,** the TEAM will use part of the course contents and programs from the continuing education workshop to design a few “typical” courses for in-house training. These courses will be designed to enable the staff of small and medium-size organizations with archival duties to plan for and carry out proper digital preservation.

Special in-house training courses will be designed as requested by specific organizations with specific requirements. If possible, these courses will be “recycled” to the continuing education programs. These continuing education and in-house training programs will be for governmental and private sector organizations with archival activities as well as for small and medium-sized archival organizations, mainly those endowed with limited resources.

## **Time schedule**

To fully implement this strategy—including the changes to the curricula of other schools outside or UNAM—will take several years. Nevertheless, the TEAM believes that the main components can be achieved within a two-to-three year timeframe. Specifically, the TEAM’s goal is to implement the strategy according to the following schedule:

### **2009**

- Develop and deliver the first courses and workshops on general awareness and knowledge of digital records and their preservation.
- Develop and deliver the first courses and workshops for specific topics.
- Develop one optional course for the Information Studies degree at the master’s level.
- Develop one optional course at the bachelor’s level.
- Design the layout of subjects for a diploma course.

### **2010**

- Introduce the optional course for the Information Studies degree at the master’s level to the students in summer 2010.
- If possible, introduce the optional course at the bachelor’s level to the UNAM Library Sciences students in summer 2010.
- Develop a complete, basic set of courses and workshops for specific topics.
- Promote the above course set to archival science schools.
- With these courses, begin to fill the content for the “diploma” course and start delivering it.
- Develop the layout of subjects and, when possible, the content of the set of courses leading to a specialization in the Information Studies degree at both the master’s and bachelor’s levels at UNAM.

## 2011

- Develop the complete set of courses and workshops for specific topics.
- Work closely with the different schools related with archival science to implant courses and programs into their formal curricula.
- Design and deliver a complete set of specific in-house training programs, expressly designed and taught for governmental, education and private sector organizations.

For more information, you are encouraged to contact the paper's authors directly.

## Author Biographies

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*Alicia Barnard Amozorrutia is currently an independent consultant for records and archives. From 1990 to 2008, she was Director of the Documentation Centre at the Federal Ministry of Health in México, where she was responsible for coordinating the Ministry's records and archives units and developing its records management regulations. She has been an instructor on records management and archival preservation for courses offered by the Ministry as well as National University of Mexico, the University of San Luis Potosi State and the General Archives of Mexico. She was a member of the Caribbean and Latin American InterPARES Dissemination (CLAID) Team (2005-06), and was the former Director of TEAM Mexico in the InterPARES 3 Project.*

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