



Institutional Repository of the Ministry of Education of Argentina: bringing educational management closer to citizenship

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Abstract:

The present article briefly introduces the development and implementation of the Institutional Repository of the Ministry of Education of Argentina. It describes the objectives, stages of the project, and future projects, framed in Decree 378 of the National E-Government Plan.

Keywords – *Institutional Repositories, E-Government.*

Introduction

The strategic guidelines that regulate the E-Government¹ National Plan and the Special Plans for National Public Administration Organizations in Argentina were granted on April 27 through Decree 378.

¹ The OECD definition of e-government “focuses on the use of new information and communication technologies (ICTs) by governments as applied to the full range of government functions. In particular, the networking potential offered by the Internet and related technologies has the potential to transform the structures and operation of government”.

Another definition by Marthandan. “The e-government allows businesses to transact with each other more efficiently (B2B) and brings customers closer to businesses (B2C), e-government aims to make the interaction between government and citizens (G2C), government and business enterprises (G2B) and interagency

The E-Government Plan has been designed, among other main objectives, to improve those services that are provided by the National Government in order to strengthen the link between State and citizenship, guaranteeing more efficiency and transparency in public management.

The Decree stresses, among others aspects:

- the development, maintenance and dissemination of integrated systems based on Internet services and the provision of information to the public;
- implementation of interoperability standards;
- the creation and maintenance of specialized portals containing links to available information published by different agencies of the public administration;
- the articulation between different organisms of the national public administration to improve the information systems by normalizing the processing information.

Within this public policy, the Biblioteca Nacional de Maestros, (National Teacher's Library) leading organization in education information management, has proposed and driven the creation of the Institutional Repository² for the Ministry of Education of Argentina, institution where the Library develops its different programs.

The repository of the Ministry of Education: its implementation

The Ministry Repository main objective is to store, organize, preserve, provide access and disseminate the intellectual production of every area and department that make up the Ministry. It is formed by learning objects, educational legislation, management briefings, tapes, videos, press material, teacher training portfolios, periodical publications, books, leaflets, posters, dossiers, and more. All these digital objects will bridge the modern public policies with the historical documents that describe the dawn of our national educational system dating back from the late XIX century, thus complying with the principles established in the above decree and the aspects previously highlighted.

relationships (G2G) more friendly, convenient, transparent and inexpensive. Electronic Business (e-business) refers to a broader definition of Electronic Commerce (e-commerce), not just buying and selling but also servicing customers and collaborating with business partners and conducting electronic transactions within an organizational entity. As Information Technology (IT) advances dramatically with new features and capabilities, it is moving away from the data processing era to a strategic Information Systems (IS) era, finding a solid berth in enterprises, governments and other organisations."

² Clifford Lynch defines Repository as: "A university-based institutional repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organization and access or distribution."

Its main objectives are:

- maximize the visibility and facilitate the access to the intellectual production generated by the different ministerial departments;
- safeguard the institutional memory reflected in the production of documents;
- define a framework of agreements, policies and standards to provide support and continuity in time to this Repository

Stages of the process

The project of implementation and development of the Repository has been performed in stages. Here are the most important:

- Identify the areas that are taking part in the project and identify the people responsible for them: for purposes of the repository, the areas that produce documents in support of the educational management were identified. Once the areas were identified and defined, an editor responsible for each one of them was appointed, who was responsible for uploading, entering, filing and placing the document or digital object in the Repository and assigning the basic metadata; the Biblioteca Nacional de Maestros is responsible for the final submission to the repository performing the quality control on the metadata and on the integrity of the digital objects;
- conduct a survey to gather information about the mission and objectives of each the ministry areas: this survey was conducted by means of a virtual survey and interviews allowing us to know:
 - the functions of the areas;
 - the type and format of the documents (which facilitated the elaboration of a taxonomic classification chart);
 - the volume of annual production;
 - the expectations of those responsible for the areas
- identify, analyze, select and implement the software to administrate the objects and digital collections: a consultancy was conducted for the analysis of free software platforms. In principle, the selection of Dspace and Eprints to be installed and compared was commenced.

Taking into account the technical evaluations performed and the international background about the dissemination and updating of the tools, it was decided to install the Dspace platform to implement the Repository. A very recent version has been chosen (1.7) giving priority to the potential discovery of material through facets implemented by this version in the processes of searching through the plug-in Discovery.

At the same time, the same functional aggregated introduced changes in the advanced query interface, which is perceived as being of a lower quality in relation to the previous version from the point of view of the final user. Due to this, the query interface was modified to be clearer.

In addition of the query interface, important modifications to the interface of the general user have been made to make it more usable and friendly, thus improving its accessibility to a heterogeneous public. At the same time, a strict control of the versioning and the modifications made to enable the installation of further versions of the tool has been maintained.

Another aspect taken into account for the selection of the tool is the simplicity and reliability in the management of users and their permissions, allowing each editor to enter the collections of the different areas. Load sheets which consider the necessary metadata for the description of the different document typologies have been created for each of the areas of the ministry.

The Biblioteca Nacional de Maestros has a digital library with material produced by the ministry. These digital objects and their metadata have been incorporated into the Repository by means of a process of conversion and migration, which initially made the Repository have approximately 6,000 documents, 300 books, 8,000 legislative documents and multimedia materials. Processes of massive ingest employed by the tool starting from preexisting MARC21 records for the implementation of the Repository have been used.

It is important to remark that this Repository has been coordinated with the “Educational Terminology Bank”, also developed by the Biblioteca Nacional de Maestros, based on Tematres, a free software for the management and exploitation of controlled vocabularies.

This Terminology Bank condenses and gathers the terminologies that are used in the Argentine Education System. In addition to the Educational Terminology Bank, limited vocabularies have been developed to represent the curricular areas and the modalities of education. Thus, the areas and departments staff ingesting in the repository will count with a normalized tool to describe their digital objects, and the final users will find with terminological services that will help them to browse the Repository with related, specific and generic terms, among other options.

- Define the policies, norms and standards to be used: based on the institutional characteristics, a draft document has been made allowing the specification of policies related to:
 - the policy of delivery, processing and updating of the Repository, working circuits, identification of the people responsible, etc;
 - the control and assurance of the quality of the processes and contents, establishing a formal analysis and an analysis of the content of the digital objects and its metadata;
 - the policies of preservation and digital safeguard;

- the adherence to rules and standards: interoperability, protocol OAI-PMH, XML, Dublin Core, METS, etc.

Future Projects

The changes and improvements will be further developed in a second stage; the Repository will be provided with a means of access or a more updated presentation according to the state of art in web portals. A possible line of work is to introduce a CMS as a means of access to the Repository. This product will have to consume services from the Repository and provide means of access to each of its functionalities from it.

Also, major changes in the presentation and disposition of the multimedia materials will be made, thus generating an interface similar to that of YouTube in the case of videos, since the lineal presentation of such contents in the current interface is not attractive for the real and potential publics of the Repository. Modifications in the visualization of the images will also be introduced, and the study of the metadata scheme will be further developed.

This repository model will be transferred to provincial ministries of education, building up a Federal Repository Network that will host the national educational public material production, materializing the above mentioned in Decree 378 in relation to the creation and maintenance of an educational thematic portal that contains links with the information available published by the different ministries and the articulation among themselves aimed at improving and normalizing the treatment of information.

Conclusion

It is a must to highlight, that the role of our library and its librarians has been crucial for the implementation and coordination of the Institutional Repository, taking part in the design of vision, mission and objectives, the selection of the platform, the normalization of the terminology used, and the further training of Ministry participants for the ingestion of their materials in a normalized way and the training in the transference of this model to the provincial ministries.

This Repository will turn into an important tool for educational information retrieval essential at the time of educational management, supporting decision taking and facilitating federal interchange of information, it will guarantee free access to information and materials, priceless assets for a mature and reflective citizenship.

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