SeDiCI | Servicio de Difusión de la Creación Intelectual (Intellectual Creativity Diffusion Service)

1.Objectives.

Universidad Nacional de La Plata (UNLP) Intellectual Creativity Diffusion Service (SeDiCI)was formed mainly to publicise the knowledge acquired at the different academic areas of our university, having the goal of restoring to the community the efforts expended on public university.

This main objective comprises other specific and similarly important goals such as:

- Creating a knowledge which makes it possible the realisation of a digital theses service in the UNLP,
- Incorporating, in this way, the UNLP in the group of universities which present their intellectual creation worldwide,
- To publicise these creations at the local as well as international communities,
- Generating bonds at national and international levels among those who contribute with their creations and those who have access to them,
- Creating a local culture of digital library usage,
- Offering new productions a medium to share ideas, records and bibliography so as to promote the improvement of new creations,
- Creating a sharing-creation mentality in a place common to all disciplines,
- and finally, incorporating the Universidad Nacional de La Plata to other existing digital resources websites; in our case to the Union NDLTD Catalog.

As additional objectives the following items have been stated:

- To define the mechanisms which guarantee the information security (no external alteration),
- To agree with authors about the information adequacy that will be associated with their documents to facilitate more successful searches options,
- To develop (in case they do not exist) converting formats tools.

In order to carry out a project of this kind it was necessary to **take the Institutional decision** of becoming intimately involved in the project, and then:

- To create a multidisciplinary team work,
- To make all the parties who have genuine interests get involved in the project,
- To guarantee the minimal resources needed,
- To define the legal aspects related to the authors' rights.
- To provide and support a website, the SeDiCI website, dedicated to the different intellectual creations.
- To define the metadata scheme to be used for the documents description and classification,
- To design the resources of storing and administrating massive quantities of information (i.e. JukeBoxes DVD, etc..),
- To define the internal proceedings for the documents presentation by students and those who do theses,

- To train students, researchers, teachers in formats and styles.
- To provide instructive documentation.

SeDiCI acknowledges as a precedent the conferences and presentations related to the ETDs projects at the Iberoamerican Science and Technology Education Consortium (ISTEC); where it was possible to appreciate the importance of developing a project of similar nature. At the ISTEC meetings institutions such as UNESCO (whose guidance is essential for any ETDs project) and universities, particularly from Brazil, were present working on similar innovations.

2. Achieved Results

2.1 First Stage.

Once the decision of carrying out an ETDs project was taken, we focused on investigating and choosing the technological platform for the information diffusion and organisation. Several platforms were studied during four months, among others: CyberThèses (France and Chile), USP's ETDs project, UNESP y UNICAMP in Brazil, the one from Virginia Tech (USA), the one from Montreal (Canada) and the one from Universidad de Valencia (Spain).

Once the research was carried out, a detailed analysis was done about the kind of material to be processed, the formulation of a project directed to UNLP authorities, and then the formation of a multidisciplinary team to run the project. This team was also in charge of defining the legal aspects which were approved by the UNLP Superior Council. As we mentioned, the methodological frame was the one specified in UNESCO ETDs Guide.

The team designed a time schedule as regards the material processing: deciding that first they would work on digital format material and then they would work on the digitalisation of the retrospective material (out of date digital formats and paper format).

Simultaneously, the software platform needed requirements, the equipment purchase and evaluation, and the evaluation of existing open software platforms dedicated to create Digital Libraries specialised on Theses were analysed.

2.2. Objectives enlargement.

SeDiCI initially was thought to be a project for dissertations and theses processing, but almost immediately and due to the interviews held with the future collaborators from UNLP different academic areas (and our university own nature), there arose the need to enlarge the project so as to include other kinds of contributions from academic entities such as Bellas Artes: musical documents, paintings, etc..

The decision to enlarge the material had as a consequence the need to adapt tools to comprise multimedia contributions.

The teamwork decided to establish a flow of documents authorised contributions. This work-flow should be flexible enough so as to admit different academic areas situations without imposing a difficult implementation circuit. A pre-catalogue service was determined by contributive Information Unit, and also verification and adaptation of the contributed documents by SeDiCI. This way of working has allowed direct authors as well as Information Units (which gather authors' documentation), Post-grade Departments, etc., to be able to contribute to SeDiCI subjected to the contribution conditions established in the regulations and law on authors' rights. This additional via does not obstruct direct contribution in SeDiCI.

2.3. Development.

The factors indicated as essential for software platform selection were those specified in the UNESCO ETDs Guide plus those needed to create an easy handling platform for the ordinary user and the possibility of "opening and going through" the information.

At the stage where requirements were set, the kind of work to be done by the librarian in each contributed document was also established. The division of documents into its conceptual parts, each of which may have its own attributes as well as attributes "inherited" from the document as a whole, was chosen as the most appropriate methodology.

In the software platform it was proper to take into account the need of "complex" documents publications, since they may have heterogeneous components: texts, sounds, software, Power Point presentations. The need of a "vigilance" area was considered in relation to the necessary technologies to provide the execution of potential multimedia components of a document.

The team decided to establish a work-flow of finished documents authorised contributions. This work-flow should be flexible enough so as to admit different academic areas situations without imposing a difficult implementation circuit. A pre-catalogue service was determined by contributive Information Unit, and also verification and adaptation of the contributed documents (paying special attention to descriptors care) by SeDiCI. This way of working has allowed direct authors as well as Information Units (which gather authors' documentation), or Academic and Post-grade Departments to be able to contribute to SeDiCI.

Every contributor must follow authors' Rights Law regulations and because of this SeDiCI works together with UNLP Intellectual Property Department. The Department and SeDiCI are in charge of the appropriate formalities so as to make it easier the work of those who contribute with their creations.

After a detailed analysis of the different platforms working all over the world, SeDiCI's teamwork decided to design a software platform of its own which is called Celsius-DL[1] and which serves as a supply for SeDiCI website: http://sedici.unlp.edu.ar

2.3.1. Software platform and information architecture.

Celsius-DL supports a free scheme and configurable kinds of material, among which we can mention newspaper articles, degree essays and Post-graduate theses, multimedia productions (even admitting complex documents; one of the last incorporations consists of a book to teach music with sound performances included), electronic books. Each kind of material has its own metadata set. Because metadata are highly structured data which describe information, describe the content, quality and other characteristics of data, they become apt to the information diversity that will be located at SeDiCI website.

From the Platform Administration component it is possible to realise a mapping action so as to export the metadata scheme from each kind of material admitted to schemes widely spread such as Dublin-Core or MARC21. In this way, SeDiCI through Celsius-DL is able to establish communications with similar websites all over the world.

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[1] As an anecdote we would like to briefly comment on the reason of its name: our first own realisation is framed by the Proyecto de Enlace de Bibliotecas PrEBi (Libraries Connection Project), dedicated to bibliographical applications management as well as their administration and it is called Celsius (like the ancient library situated in the city of Efeso). Because we want to show our commitment to build useful platforms at the informative area, being part of a reliable "family", we decided to called Celsius- DL this last creation we present here; the letters DL purely standing for its specification on digital libraries.

The basic metadata types are Date, Free-Text, Person, Thesaurus and Hierarchies. In this way, it is possible for a particular document to add, for instance, the meta data "Presentation Date", as an instance of the metadata Date and when entering it, a calendar will appear to validate and guarantee the uniformity of the date entered.

The other metadata types such as Thesaurus, allow to establish new metadata based on controlled terms. SeDiCI's librarian team uses nine (9) offline thesaurus but creates terms within a unique multilingual thesaurus which is on line. This facilitates the metadata pre loading, offering the ordinary user greater simplicity. Celsius-DL software also admits the possibility of working with many thesaurus on line, being the alternatives selection an exclusive means for those who administrate the service.

Hierarchy metadata types have been used to incorporate the different grades to reach: doctorate, mastery, etc..

Metadata architecture given by Celsius-DL is completely configurable, allowing the addition and extraction of instances. This quality is not available in other software developments created for similar purposes. A metadata scheme of this kind has made it possible to create multiple tools for the information exploration being it thematic, by its publication type, by author, academic unit, etc..

Current architecture makes it possible to conduct a search over twenty-five (25) different fields, but it is possible to add a larger number in case technical procedures consider it necessary. Every exploration options are visible through the "Virtual Trip" presented at the site.

2.4. Contents Processing.

As regards documents processing, SeDiCI administers the granularity of digital documents. This advantage its platform software presents is of great importance since it makes it possible to divide a document into its own conceptual or physical parts. For instance, given a certain thesis, it is possible to create a different part for each of its chapters.

It is necessary to make it clear that SeDiCI admits to have access to the document as a whole but it also offers the possibility of having access to each part individually. From the website user's point of view, this obviously brings many advantages since he is able to make a careful selection of the material he wants to obtain, consequently saving time. In case the user does not have a good Internet connection, this facility becomes an important ally. This feature of users diversity integration was especially considered in our design.

SeDiCI website allows to know the quantity downloaded of each document part. With this facility we were able to corroborate that having each part many different accesses, the tool previously described has been useful for our users.

As regards the information organisation, each different part of a document inherits the metadata of the whole document, but, at the same time, it is possible to find specific metadata in each different part.

2.4.1. Additional facilities.

SeDiCI works as document final repository or virtual repository. This means that if any Academic Unit possesses and administers certain digital contents, Technical Processes from SeDiCI is able to receive a catalogue application of that material, to generate the proper references, to give a broader diffusion space and uniformity. These tasks add value to the

contents by classifying the information and it also changes link traditional concept in the sense that for the final user it becomes clear whether a document is located at SeDiCI or if the conducted search is redirected to another external repository.

2.5. Users' services.

One of SeDiCI's main objective has been to provide the different users with as many services as possible. In this way, every person referred to within a contributed document is automatically registered as a new website user. These politics have allowed many foreign investigators to become interested in SeDiCI and they have also offered new documents for publication.

One of the services offered to the user consists of the possibility of creating folders with the different selected documents as a result of a certain search and the possibility of administering such folders autonomously.

Users may subscribe to certain conducted searches and from this point they may be part of a Selected Dissemination Information scheme by means of which the user will receive the digital library news related to the areas he has selected as relevant according to a free temporal scheme (every fortnight, once a month, etc..).

Another highly useful service has been the possibility for each member to individually specify his contact e-mail through which he will receive SeDiCI's newsletters, being it possible to make this information public (or not), so as to receive feedback from other users about the published digital document.

2.6. Open archives initiative inclusion (OAI).

SeDiCI wants to give its users relevant contents on multiple fields. To achieve this goal a "Service Provider" profile has been created at the "Open Archives" convention over more than 15 experimental repositories reaching the sum of 700,000 references which are classified by Repository and by group within it.

A SeDiCI user is able to explore repositories and once he has entered one of them, he may carry out a specialised search according to the repository type. Special attention has been paid on specific characters interpretation and one of our current goals is to make users bring their suggestions as regards destinations, groups and most relevant dates so as to hold a periodical gathering of specific repositories.

As a counterpart, SeDiCI's own contents are available at the "Data Provider" profile of Open Archives by means of an automatic "script" which translates according to the mapping realised by SeDiCI's Technical Processes to Dublin Core format (YAR is currently being implemented). It is also possible to use other more descriptive schemes.

2.7. Special Services. Contribution Scheme. Distributed Catalogue.

SeDiCI brings the possibility of having certain institutional users as document contributors. To be able to do so, the user must require to become Contributor, the one in charge of Technical Processes evaluates the solicitude, discusses with the directors and verifying the proper data enables the user to enter documents. This interface has been designed having in mind electronic contents Contributors who may or may not be the documents' authors.

Loading documents interface is a subgroup of SeDiCI's interface and makes it possible to keep a Specific authorities directory in the way that personal data of these authorities are to be entered just once.

Documents are produced in a temporal space waiting for technical revision by the person in charge of SeDiCI's Technical Processes. The Contributor must then obtain the written authorisation of the author/s for the digital library publication (this authorisation is auto generated from the site indicating the agreement on the published data and acting as an author sworn statement).

Once the authorisation solicitude has been obtained and the document has been catalogued according to SeDiCI's norms, it is finally published producing the auto communication among Contributor and document authors. This process works as pre catalogue in origin, which leads to a faster and qualified procedure.

2.8. Special Services. Library Web-services .
A recently functionality added to SeDiCI has been the possibility for the contributors to accede to their contents from the searching interfaces they commonly use. This service is specially indicated for libraries and it implies that at the different OPACs it is possible to see from the aesthetic and from native consultation methods, which is the local material given to SeDiCI.

This experience has been initiated with **Biblioteca de Física de la UNLP** (http://biblio.fisica.unlp.edu.ar) (UNLP Physics Library), and from this OPAC it is possible to have a look at contributed Post-graduation Theses, being it possible to have access to complete texts from SeDiCI's website, and to consult them according to the specific aesthetic parameters (even it is possible to select which meta data are or are not to be used).

This contributed content dissemination service to other websites has been acquired through the technology known as "web-services" defining a clear interface to the digital library electronic contents access. Such an interface has been expressed according to the standard web services description language WSDL.

3. Benefits and y Beneficiaries.

SeDiCI's website, through Celsius-DL, currently provides a virtual environment which admits free access to productions of UNLP different fields and to a large number of external document collections.

Although it is only a year since SeDiCI's website is plenty working, it has 17 UNLP documental series (periodic publications) which represent 716 full text articles. It has also put on line four electronic book fully accesible, and at this moment it is finishing a new electronic book on musical teaching, which comprises multimedia documents: texts, images related to the texts (staves), and the musical representation of the proposed exercises; it has 379 full text theses[2], 8 dissertations, 61 artistic productions, 2 pictorial series, 1 research project and 147 documentary articles.

SeDiCI allows the access to the information of 18 open archives repositories (OAI) which mean 700,000 information records the visitors may consult: more than 100,000 full text theses, complete Congress Library photographic collections, more than 20,000 biology and medicine

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[2] In spite of our initial time schedule, many contributions have involved written material digitalisation which meant an additional effort in pursuit of the contribution of more material.

articles, manuscripts, paintings, music, etc.. Through a "Virtual Trip" users may enter the repositories, get a brief summary of its contents, to meet the participants and to eventually accede to that great amount of information.

The website is available for registered users as well as for visitors who are able to:

- to learn about SeDiCI's legislation,
- to look for UNLP creations stored at the website,

- to run searches of material of particular interests through different parameters: author (personal), author (institutional), thesis director,... and many more,
- to have a look at the material as a whole or analysing its parts,

- to get UNLP stored creations as a whole or just those parts of particular interest,
- to have access to other theses documents through the links of our website,
- to register at the website so as to obtain additional benefits.

Registered users may have access to an additional set of operations:

- to hold an on-line communication with PrEBi-SEDICI,
- to have access to Open Archives repositories (OAI),
- to create/ eliminate/ rename folders where he is able to save information,
- to store/delete documents from these folders,

- to know the search history,
- to select the kind of material of which he wants to receive updated information through search history,
- to access to/modify personal data,
- to access to the communications held with PrEBi-SEDICI.

SeDiCI's website has received more than 30,000 visitors who conducted 42,000 successful material searches and who have obtained around 60,000 documents.

4. Impact.

SeDiCI has been introduced to UNLP Academic Community as a Digital Theses platform at the Digital Theses First Workshop sponsored by UNESCO in the Oriental Republic of Uruguay, and it is the only Argentinian website that currently presents on line theses for downloading.

The website and its platform have been presented at various international forums as well as at national level. The information of some of these presentations is available at the website itself in the "Diffusion" section.

This service is producing a cultural change at different UNLP Academic Areas and for this reason day after day there are more different kinds of document contributors.

SeDiCI is referred to in national Librarianship and Documentation Congresses as an advanced tool for the e-publishing and information retrieval (IR) areas.

Its contents are continuously been indexed by meta-searchers since a great part of its access are conducted through this via.

The project has had two important levels of impact: on the one hand, the presentation of a platform where Academic Units are able to make known their outstanding intellectual productions proposing the website as a quotation element for its electronic access; and on the other hand, SeDiCI works as a "link" when the reader wants to contact the authors and their personal information is not available. This reinforces the aim of the project frame, that is to say the intellectual production diffusion and new opportunities creation for those authors who generously offer their work to be published at the website.

5. Website descriptive chart

Home	**Information**	>> Legislation >> SeDiCI's Campaign
	Search	>> Faculties >> Documents >> Access to parts >> Complete Search >> Search Help >> Save in folders
	Links	>> Link categories
	Virtual Trip	>> List of Topics >> Document Types >> Reached Grades >> Repositories
	Map Site	>> Document Searches >> Access to the parts >> Exploration >> ETD initiative >> Registration Benefits >> Folder Saving

Home	Users' Services	>> Registration >> Registration Benefits >> Password Recovering
	Quick Search	>> Quick Search Form
	General Services	>> How to add documents >> Contact us >> Our phone numbers >> Our Sponsors >> Diffusion
	Content Sections	>> ETD initiative >> Document Processing >> Open Archives (OAI)
	Institutional News	>> Latest News
	Lately added material	>> It shows the 3 lately added documents.

6. Reflections and wishes of the members of this project

When we gave our initial presentation to UNLP authorities we finished the exposition with a motto of the famous French May 1968: "Be realistic, ask for the impossible". SediCI's team is composed of young souls encouraged by the utopia that it is possible to create a different reality which is fairer, more generous and partaking.

From our small place, we believe in the opportunity of achieving this goal, through those tasks that, because of their innate solidarity, help as social integrators. In this sense, technology gains special prominence since it is used for more significant goals and, in this sense, humanises itself.

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