

Proposal for a solution to increase the use of the digital heritage at the Universidad Tecnológica del Estado de Zacatecas**Propuesta de solución para incrementar el uso del acervo digital en la Universidad Tecnológica del Estado de Zacatecas**

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Abstract

With this work it is intended to offer a solution proposal to the problem of the little and/or null use of digital collections in the Technological University of the State of Zacatecas. The construction of the prototype of the digital library aims to have an electronic means for consulting bibliography, in addition to disseminating the use of the computer platform for online resources. This portal facilitates access to the digital library of the ECEST (Common Space for Higher Technological Education), thereby allowing the 243 workers and 2,138 students of Guadalupe y Pinos to have access to this platform. to a greater collection of popular science magazines and peer-reviewed articles, among other digital resources, including their own.

Digital library, Common Space for Higher Technological Education (ECEST), National Consortium of Scientific and Technological Information Resources (CONRICYT), Portal, bibliographic collection

Resumen

El presente trabajo tiene como objetivo ofrecer una propuesta de solución al problema del escaso y/o nulo aprovechamiento de los acervos digitales en la Universidad Tecnológica del Estado de Zacatecas. La construcción del prototipo de biblioteca digital para la Universidad Tecnológica del Estado de Zacatecas, tiene como objetivo proporcionar un medio digital de consulta bibliográfica y difundir el uso de la plataforma informática de recursos en línea. Este sitio permite el acceso a la biblioteca digital ecest (Espacio común de educación superior tecnológica), permitiendo así que 2381 trabajadores y estudiantes de Guadalupe y Pinos, tengan acceso a esta plataforma. Se pretende que posteriormente puedan tener acceso a un mayor acervo de revistas científicas y artículos arbitrados, esto entre otros recursos digitales.

Biblioteca digital, Espacio Común de Tecnología de la Educación Superior (ECEST), Consorcio Nacional de Recursos de Información Científica y Tecnológica (CONRICYT). Portal, bibliográfico

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Introduction

The use of technology has been changing the way in which daily and professional activities are traditionally carried out in the different areas of our lives. This is not something new, rather it has been inevitable due to the dynamism required by an accelerated pace of life, which requires doing a greater number of things in less time. Speaking of digital resources, we can realize that they have permeated all countries and all social classes. (Alice Kefer, 2007) (Moscoso & Ortiz-Repiso, 2002)

This situation can also be observed in the academic and research activities of educational institutions, such as the Technological University of the State of Zacatecas (UTZAC), in which it has been decided to take advantage of the existing electronic bibliographic collection by implementing the use of the digital library through which it is desired to increase the use of these resources and make available to students, teachers and researchers access to the contents of collections of books and existing resources digitally on the web.

This digital library will then be in charge of providing electronic resources of documentary information and library services that support the study programs and academic activities of the institution. It is not the intention of this project to replace the use of the library in the usual way, that is, through books and printed bibliographic resources that are consulted in the reading rooms that the institution has, rather it is intended to strengthen this service by making these resources available to the university community electronically from any site where they can be accessed Internet and therefore have a greater coverage of library resources reaching a greater number of users.

Likewise, it is intended to increase the amount of electronic consultation resources by managing agreements that allow access to other libraries in addition to the one that is currently known to be the ECEST Digital Library. It is also intended to make use of free digital libraries, which can provide a much more enriching collection for the use of our student and academic community.

There are no other similar works in the Technological University of the State of Zacatecas, it is the first one that is carried out with the purpose that the university community uses digital technological resources as library services, however some digital libraries have been found on the web, such as the Tecnológico de Monterrey, in which they are only available to current students, professors and collaborators of the Tecnológico de Monterrey and Universidad TecMilenio. Other libraries are free and can be accessed by the general public, such as the digital library of the Latin American Institute of Educational Communication (Educational, 2015), the digital library of open access books (Metalibrary, 2015), and the world digital library (UNESCO, 2015).

The contributions of the prototype of the digital library for the university are the following: Allow the university community to have easy, timely and expeditious access to documentary information in digital format that supports study and research programs. Meet the information needs of the academic community through documentary information resources and other resources. And Collaborate and/or contribute to the professional training of the student and updating of teachers and researchers in relation to the use of documentary information.

Problematic

Libraries physically installed in buildings and printed bibliographic collections have been and continue to be an important part of the success of academic and research work in universities and educational institutions in general. However, the use of this tool has gradually decreased in direct relation to the existence of other media that offer information quickly. The consultation service offered by the web is becoming more accessible to everyone, with the advantages offered by being able to use it from different places such as at home and even several public places already have internet access. (Alice Kefer, 2007)

It is necessary to comment that the web has the inconvenience that practically anyone can upload information without any validation that the published information is current and true. If this is contextualized to the academic environment, we realize that it is very problematic for students to carry out their research tasks and base their work in general on sources of dubious origin.

This is even more serious with teachers and researchers who cannot in any way trust that the information on the Internet can be useful to them because they cannot verify its veracity and timeliness. Traditional libraries depend on the presence of library staff to serve users and on the building being open during certain business hours. This affects users who increasingly require more information quickly, at different times and from different places.

The UTZAC has a traditional library, which is made up of a physical bibliographic collection that has been intended to be the source of information for members of the university community that may require it (students, teachers and researchers).

It is already known that the use of the traditional library has been declining, this may be due to the fact that access to information through the Internet network is more practical for purposes of obtaining information quickly, but this does not guarantee that the students access reliable information, rather it has tended to decline in the quality of the work done by students by not using information sources that contribute to good research.

Users have had access to the ECEST digital library for some time now, however there have been several factors that have not had the expected impact: on the one hand, it has not been adequately disseminated in the student community, On the other hand, strategies are needed in the academy so that this digital heritage can be used in a planned way in the academic activities of the different programs.

The university, aware of the need to have a tool that encourages reading and research by the community, requests that it be put into operation and its use made more efficient. For this, through the Academic Coordination, it has commissioned the Digital Library project to the Academic Body of Information Technologies Applied to Software Engineering.

Overall objective

Launch the digital library of the Technological University of the State of Zacatecas to provide electronic resources of documentary information and digital library services that support the study programs and academic activities of the institution.

Specific objectives:

- Have a digital medium for consulting bibliography, magazines, among other resources, digitally.
- Disseminate the use of the digital library to the university community.
- Generation of agreements to strengthen the bibliographic heritage.

Scope

Its main functions are:

- Provide easy, timely and expeditious access to documentary information in digital format that supports study and research programs.
- Satisfy the information needs of the academic community through documentary information resources and other resources.
- Contribute to the professional training of the student and updating of teachers and researchers in relation to the use of documentary information.

The users who will use the platform are:

Internal users: all members of the academic community of the University; students of all educational levels, teachers and researchers, teaching and research assistants; personnel who provide support services for academic activities such as: rectors, academic secretaries, career directors, academic coordinators, tutors, advisors, laboratory technicians and librarians.

External users: People who have some relationship with the institution and the authorization to make use of the resources of the digital library.

Justification

The little or almost null use of electronic library resources in the university makes evident the need to increase the use of the digital library. The most obvious advantage that this platform offers is availability; 24 hours a day, 365 days a year without location restrictions and at the same time it is a way of guaranteeing that the consultation sources are reliable and current by having access to specialized journals and bibliography in general.

Resolution Techniques

It seeks to launch the Digital Library of the Technological University of the State of Zacatecas to provide electronic resources of documentary information and digital library services that support the study programs and academic activities of the institution.

The project will bring advantages that will be useful for the university community in general since it will greatly modify the traditional way of working with physical libraries to virtual libraries, an increase is expected not only in productivity but also in the quality of academic work. and research developed by teachers and students of the institution.

The web portal described in this work was developed using the prototype development methodology, specifically the so-called "Reusable Prototyping Model": Also known as "Evolutionary Prototyping".

The reason for using this methodology lies in the simple way of being able to reinforce content and functions that ensure the proper use and quality of the computing platform.(J. Court, 1996)The steps followed by this method are as follows:

- Requirements gathering and refinement
- Modeling, rapid design
- Prototype Construction
- Development, evaluation of the prototype by the client
- Prototype Refinement
- Engineering Product(Pressman, 7th Edition)

The most outstanding resources and characteristics in the development of the digital library project are detailed below:

Material resources

The following table shows the material resources necessary to carry out this project, the requirements to be used can be seen in detail.

Resource	Description
server space	A minimum of 1Gb for hosting the WEB portal of the digital library at the moment, In the immediate future, considerable space will be needed to house its own collection.
League on the official UTZAC portal	For broadcast.
Computer equipment	To create the site and administer it.

Table 1 Material resources

The web portal was carried out with HTML and CSS technology using World Wide Web Consortium standards.(W3C, 2014), emphasizing usability, in such a way that users can navigate smoothly on the site and find information in a simple and effective way.

Diagnosis

It has been established as a starting point to update the user records of the ECEST digital library, for which support has been requested from the Technological University of León, to clean the digital library records database, and to be able to then collect official information from the student community and feed the database with real and updated information. With this information collected we can say that up to now 2381 Users have been registered, distributed in 2138 Students and 243 Research Professors.

Setting

The proposed portal for the Digital Library of the Technological University of the State of Zacatecas consists of the following components:

Start

This section refers to the portal itself on its home page.

UTZAC

Link that leads to the official website of the University.

Services

This option contains documentary information and digital library services that will improve the substantive activities of technological higher education institutions and promote research, learning and student training by reducing the barriers of time and distance.

Fast guide

Its objective is to present a complete overview of the Digital Library of the Common Space for Higher Technological Education (BiDig-ECEST).

Through the description of each of its elements, in order to guide the user in a basic way in the use of each of the services and recovery options of the available information resources.

Contact

Information through which you can contact the administrator staff of the digital library portal.

Strengthening

The next step is to investigate in depth what refers to the National Consortium of Scientific and Technological Information Resources (CONRICYT) in terms of its mode of operation and access to the libraries and resources that this website includes and thereby increase the collection to which You have access from our portal.

In addition, it is intended to search and analyze the free digital libraries that are available to the general public to add them to the repository of resource links, in such a way that the increase in digital collections is constant.

Likewise, seek the formalization of agreements if necessary with more organizations that offer digital library services.

Diffusion

It is intended that the dissemination be done through the university library, using the appropriate means so that the community can enter the platform and make use of this site.

In addition, the following activities will be sought together:

1. Place a hyperlink on the institutional page.
2. Presentation of the Digital Library to the university community.
3. Distribution of users to both students and research professors.

This is intended to be done in 2015.

Management

The digital library requires carrying out its own user management activities, that is, registrations, cancellations, changes and consultations of the accesses that can be given on the platform.

Currently, the ECEST platform is configured in such a way that it is only through this means that users and passwords can be managed, for this reason our site serves as an access link to this library.

It is necessary that each end of the semester a count of the users who are part of the university community and those who are not is made, in such a way that user administration can be carried out in that period. Another important activity to consider will be related to the generation of agreements for new digital collections, and the analysis of free digital sites in order to add them to the platform.

Results

Existing users of the system of the Common Space for Higher Technological Education (ECEST) were unsubscribed, in order to start a clean database and assign a username and password to the entire university.

A computer portal was developed that allows easier access to the digital library, which contains links to the UTZAC page, to the services offered by the digital library, and a quick guide that aims to help users learn about BiDig-ECEST, and also contains contact information, through which users can send emails to the administrator of the digital library

The following figure shows the proposed portal for the Digital Library of the Technological University of the State of Zacatecas:

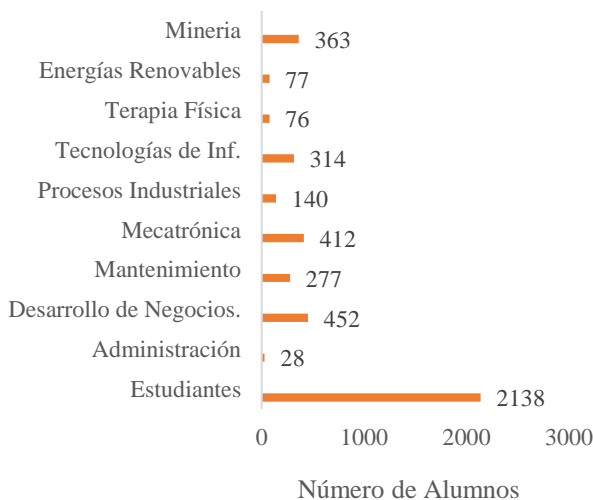


Figure 2 Access to Digital Library

The following users were registered:

- UTZac 243 workers
- 2138 students including Guadalupe campus and Pinos campus.

In the following graph we can see the number of students by major who currently have access to the Digital Library.



Graphic1 Student users by career

Conclusions

The digital library of the Technological University of the State of Zacatecas is launched to provide electronic resources of documentary information and digital library services that support the study programs and academic activities of the institution. There is currently, at the Technological University of Zacatecas, a digital medium for consulting bibliography, magazines, among other resources digitally.

The use of the digital library has been disseminated to the university community.

The generation of agreements will be sought to strengthen the bibliographic heritage. The work carried out has been productive and this will be reflected shortly when the resources with which access is achieved are disseminated, so far the ECEST digital library is available, but this is only the beginning.

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