

AN ENHANCED ELECTRONIC ACCESS: THESES, DISSERTATIONS AND PROJECT STUDIES DOCUMENTATION SYSTEM

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Introduction. The Graduate School of University of the East in Manila needed a computerized management system solely for its collection of theses, dissertations and project studies done by the students. The manual system is certainly prone to data loss, redundancy of topic, and plagiarism. The library system has been computerized but it lacks many search features needed by student researchers. With the integration of new and better technologies, the issues of safeguarding, searching and maintaining these documents could be properly dealt with.

Method. The five phases of information systems analysis, design and development were implemented. Problems were identified through keen observation of the existing system and through interviews of Graduate School librarians, staff, faculty and students. During the development stages, walk-throughs were frequently conducted.

Results. An enhanced computerized system has been developed which provides intelligent access to theses, dissertations and project studies. Search tools were specifically incorporated for easy access by students, faculty and staff. The project was met with approval from the graduate school body.

Conclusion. This project is by itself useful as a search and reference tool. Students are able to view the past studies related to their program of study which will guide them in their research activities. The project also provides updates to the faculty members who supervise the students about past and current researches. Finally, frequent reports on graduate school researches are easily generated.

1. Introduction

Background of the Study

A local study conducted by Teano (2006), entitled “Abstracts of Dissertations, Theses, and Project Studies submitted to the University of the East Graduate School, 1990-2005” was intended to serve as a tool for researchers in doing their research work. It aimed to have search means for all dissertations, theses, and project studies through abstracts and indexes, including organized and reliable sources, and at the same time promote its significance as major sources of information on its own. The study addressed the following issues: (1) How to promote access to the doctoral dissertations, masteral theses and project studies. (2) How to bring all significant abstracts of doctoral dissertations, masteral theses, and project studies from 1990 to 2005 under bibliographic control through the development of a specially designed database. (3) How to produce a finding tool to the doctoral dissertations, masteral theses, and project studies that is searchable by author, title, subject and accession number.

A related project was conducted by Yao (2006), entitled “Computer Science and Studies Theses Abstracts, 2002 to 2005”. Yao made an assessment that the continuously increasing number of theses in the undergraduate program requires a system that they be organized for easy retrieval. The goal of the study was to produce a retrieval tool for the theses collection. The author also recommended that the production of this retrieval tool be extended to the earliest theses and to be updated annually.

Similarly, the study conducted for University of the East College of Dentistry Compilation of Theses Abstracts with Index by Derpo (2006), aimed to provide a reference guide for researchers, scholars, educators and students on studies conducted by undergraduate dental proper students. The project was a compilation of theses abstracts of the College of Dentistry from 1999-2005. It gave insights into some of the research studies undertaken at the College of Dentistry and would help in minimizing unnecessary duplication and repetition of research endeavors. The work was also intended

for thesis advisers to enable them to suggest to students the field of study, which are worthy of scholarly investigation.

Objectives of the Study

This project in particular was aimed to create fast delivery of research services and information that is automated, updated, and relevant to the students, faculty and staff of the University of the East - Graduate School (UE-GS), and to determine the perception of graduate school personnel and students about the project.

A stand-alone system was initially proposed for the pilot run. The project would be implemented in UE-GS library's local area network when it is stable. The project was also aimed to be launched in the internet in the future.

2. Methods

Phase 1. Identifying Problems, Opportunities and Objectives.

Initial interviews with student researchers, librarians, graduate school staff and faculty members were held in order to determine the problems and issues and the opportunities to enhance the current system. When interviewed, the respondents said that they needed more information about past researches other than the title, author and the year the research ended.

An average of twenty (20) dissertations, theses, and project studies were submitted every year. Research documents from 1995 up to 2007 were suggested to be included in the project initial entries. The project was to be carried out in five (5) months, that is, from November, 2007 to March, 2008.

Phase 2. Determining Information Requirements/Analyzing System Needs.

The UE-GS already maintains a computerized library system. Nevertheless, the UE-GS library administrators welcomed improvements to their current system to provide relevant and easy access to library information. Thus, they gave information requirements on cataloguing and indexing of home grown research documents.

A combination of modified waterfall model and Joint Application Development were implemented in designing and requirements modeling process. This allowed key users to participate effectively. When users participate in the systems development process, they are more likely to feel a sense of ownership in the results, and support for the new system.

Phase 3. Designing/Developing the system.

There were many softwares used in the development of the system. The Dreamweaver software was used to design and develop (printable) screen displays. With its WYSIWYG (What You See Is What You Get) features, Dreamweaver made it easy to build visual layouts. Dreamweaver has many application development features and code editing support. All these features enabled to create visually appealing and standards-based websites quickly.

Active Server Pages (ASP), a server-side script engine, was used for creating dynamically-generated web pages. It is as an add-on to Internet Information Services (IIS) and is included as a free component of Windows Server.

For scripting language, VB script was used. VB script has the capacity to incorporate interactive elements on a web. When a VBScript is inserted into an HTML document, the Internet browser will read the HTML and interpret the VBScript. The VBScript can be executed immediately, or at a later event.

To add interactivity to HTML pages, JavaScript was also implemented. It is also scripting language and it is a lightweight programming language (with a very simple syntax).

The Microsoft Office Access was used as database engine. Again, it made the development easier since it combines the relational Microsoft Jet Database Engine with a graphical user interface and software development tools.

Phase 4. Testing the System.

The project holder tried the modules one by one, checking the interfaces for hang-ups. In further testing the system, about forty (40) research documents were at first entered into the system. The browse and search modules, borrow and return modules were investigated for errors. The project holder also invited some UE-GS student researchers, faculty members, staff and librarians to participate in testing the modules. When errors were found or when there were strong suggestions from different users to edit some parts, the project holder tried to correct them or comply with them.

Phase 5. Evaluating and Documenting the System.

To evaluate the system, a simple survey questionnaire was distributed to the UE-GS personnel, students and information technology staff. The system documents were prepared for final presentation.

3. Results

The enhanced computerized Theses, Dissertations and Project Studies Documentation System has many search features. The user can perform the usual searches, such as by title, by author, by accession number. Moreover, it also has an option of listing researches by program of study (e.g. Master for Information Management, Master in Public Administration, etc.). It provides searches according to documentation type (Thesis, Dissertation or Project Study), faculty adviser, year published and by keywords. The searches can also show the abstract to give more information about the study.

Sample Interfaces

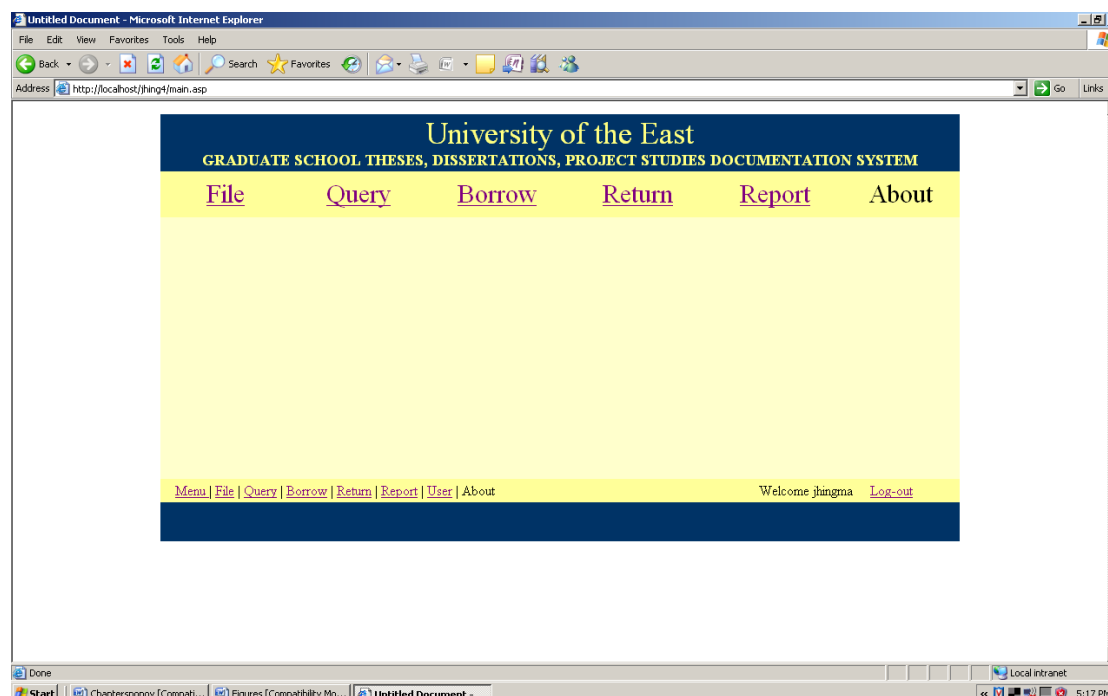


Figure 1. The Home Page.

Figure 1 shows the home page of the system. FILE opens file maintenance module to add & update entries of finished and on-going researches, research supervisors and programs of study. QUERY opens search module. BORROW opens module for allowing a particular research document to be released to the student or faculty member. RETURN opens module for receiving back a borrowed research document. REPORT opens the module to generate reports on the research documents. ABOUT displays information about the system.

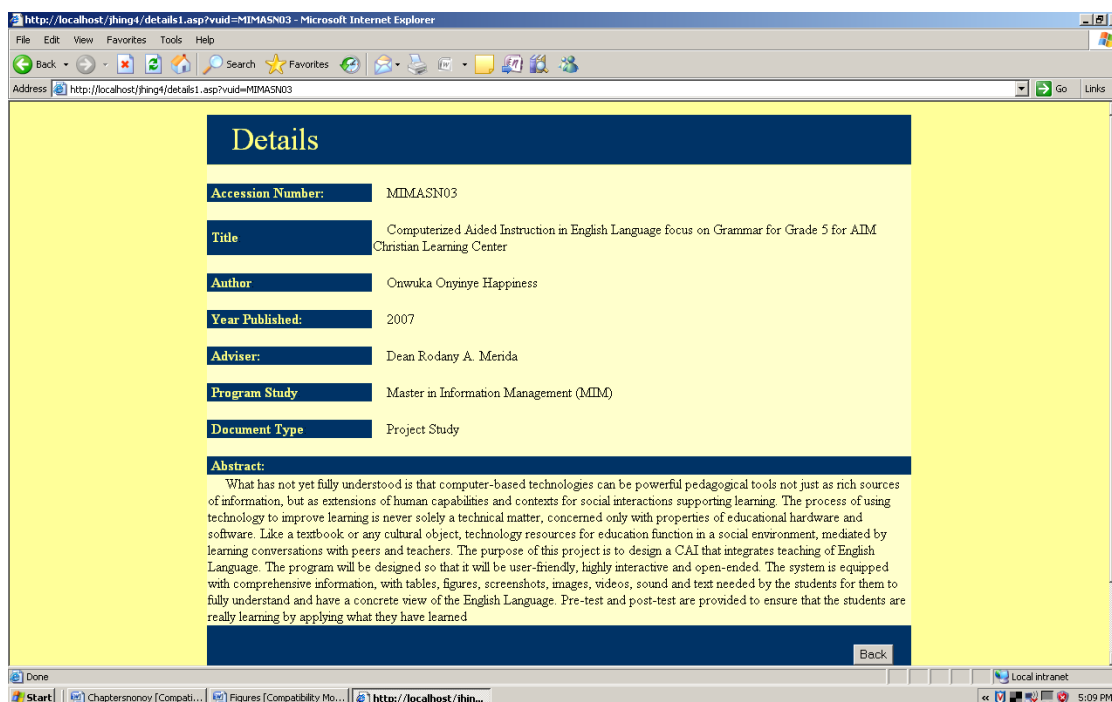


Figure 2. Details display.

Figure 2 is a sample details display. This can be viewed when searching research documents by accession number or title or author. Also, faculty members can search for their past supervised researches. Graduate school staff can search and report finished researches by year, document type and/or program of study. A short abstract of 500 to 1000 words can also be included.

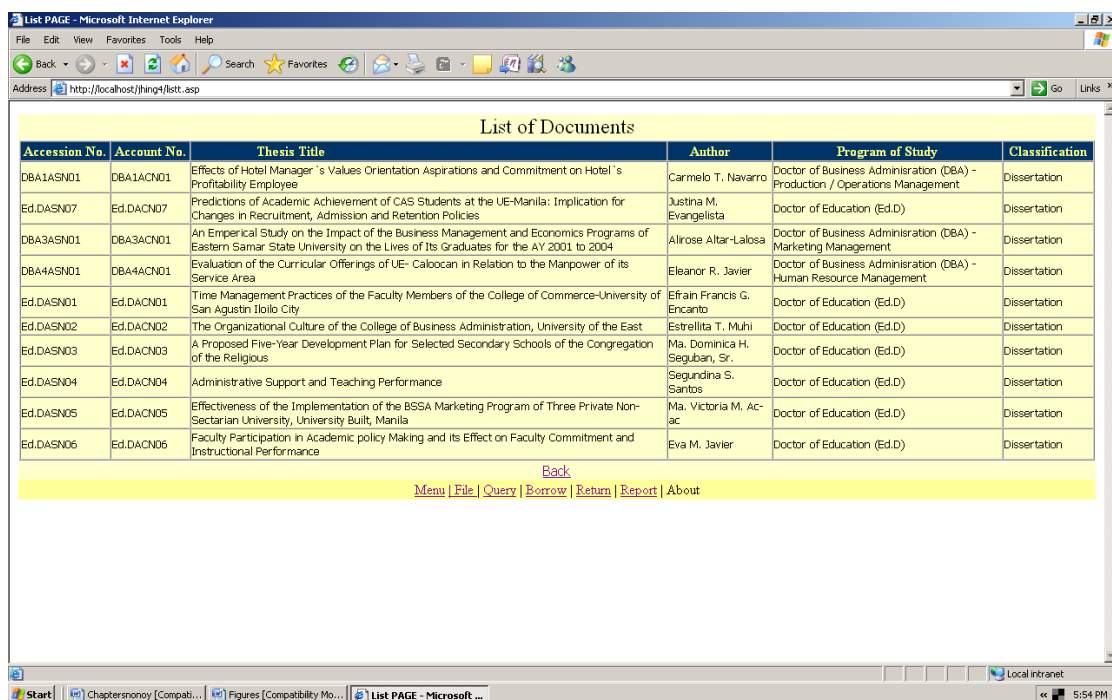


Figure 3. Sample report.

Figure 3 shows another sample screen display and/or report that can be generated by the system. Reports such as this can be printed as frequently as needed. This will enable the graduate school staff to timely accommodate requests from students, faculty, school administrators, and even government agencies about home grown researches.

Survey on Perceptions

One of the objectives of this project was to determine the perception of the respondent on the “University of the East-Graduate School Theses, Dissertations, and Project Studies Documentation System”. Thus, a simple perception survey was done to gather data. Twenty ($n = 20$) respondents answered the survey. They used the following rating scheme.

4-Strongly Agree	3-Agree	2-Disagree	1-Strongly Disagree	
Areas	4	3	2	1

A. THE DOCUMENTATION SYSTEM IS EFFECTIVE AS A:

1. Search Tool - for easy access of Theses, Dissertations, Project Studies for graduate school students, researchers and staff				
2. Reference Tool - that will be useful in planning for their paper, in searching for similar completed projects that will serve as reference in enhancing their chosen project area				

B. THE DESIGN IS:

1. User friendly - easy for people to use				
2. Simple – the design is not complex				
3. Systematic – the design is easy to understand or do				
4. Exhaustive – has wide reference to use				

C. I recommend that this system be used in the:

1. Graduate School - Office	
2. Graduate School - Library	
3. Graduate School - Main Lobby	

D. Other Comments and Suggestions:

Figure 4. Survey Form

Figure 5 shows that among the respondents, 55% were graduate school students, 20% were information technology experts, 10% were graduate school librarians, another 10% were graduate school staff, and 5% were faculty member-librarians from other units.

According to Figure 6, the system got the highest rating of 3.95 as a search tool. As a reference tool, the system got an average rating of 3.90. The respondents almost strongly agree that the system is user-friendly, simple and systematic. Among the ratings, the respondents gave the system the lowest (3.70) in terms of exhaustiveness.

The system got a mean rating of 3.86 which means that the respondents almost “strongly agree” that the system is effective, the system has a good design and well-recommended for live use.

Some comments included:

- “Maybe further developed for reserved service.”
- “Great creative invention and expand to other UE library units”
- “Great assistance to graduate school and undergraduate schools as well.”

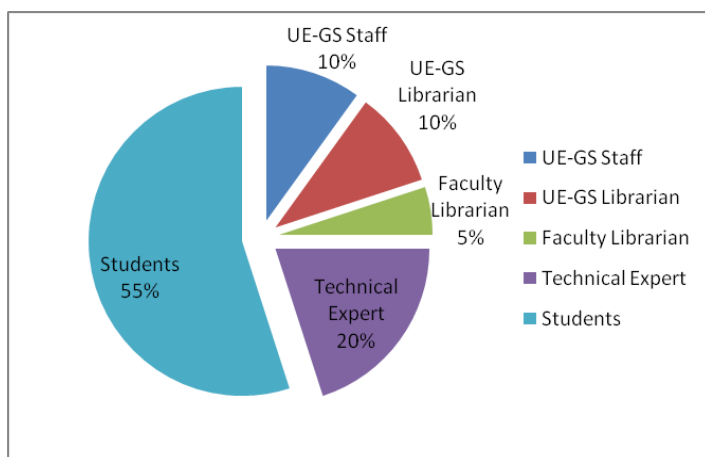


Figure 5. Survey Respondents

No.	Respondent/s	The Documentation System is Effective as a		The Design is			
		Search Tool	Reference Tool	User-Friendly	Simple	Systematic	Exhaustive
1	Faculty Librarian	4	4	4	4	4	4
2	UE-GS Staff	4	3	4	3	3	3
3	UE-GS Staff	4	4	4	4	4	4
4	UE- Library Staff	3	3	3	3	3	4
5	UE- Library Staff	4	4	4	4	4	4
6	Technical Expert	4	4	4	4	4	4
7	Technical Expert	4	4	4	4	4	3
8	Technical Expert	4	4	4	4	4	3
9	Technical Expert	4	4	4	4	4	4
10	Student	4	4	4	4	4	4
11	Student	4	4	4	4	4	4
12	Student	4	4	4	4	4	4
13	Student	4	4	4	4	4	4
14	Student	4	4	4	4	4	4
15	Student	4	4	3	4	4	3
16	Student	4	4	4	4	4	3
17	Student	4	4	3	4	4	3
18	Student	4	4	4	4	4	4
19	Student	4	4	4	4	4	4
20	Student	4	4	4	4	4	4
Total		79	78	77	78	78	74
Average		3.95	3.90	3.85	3.90	3.90	3.70
Gen. Average		3.86					

Figure 6. Survey Results

Cohn (1998) stressed that the library's bibliographic database, created through a retrospective conversion, is not a static one. Titles will be added, withdrawn, transferred and re-catalogued. Cataloguing sub-system is so important, for it is through this subsystem that one will be able to create, add, display, edit, delete and update records in the database.

Kochar (1997) said that the usefulness of different forms of library catalogues can be compared in a variety of ways. One of the most important criteria is simply the extent to which a catalogue fulfills its basic purposes of the library. Catalogue is not cast in stone and depends on one's perspective.

Conclusion

This was a pioneering work aimed to enhance electronic access for theses, dissertations, and project studies collection of the Graduate School of the University of the East. This special endeavor was conceived solely and intended only for UE-GS. The project is a welcome addition to UE-GS library services and to be progressively incorporated into the whole University of the East library system.

Search tools were specifically designed for easy access of research information by graduate school students and staff. Security features, such as passwords, were integrated into the system to protect the reliability of its content. Students and faculty-supervisors would be able to view past studies related to their research areas and program of study. UE-GS library administrators and UE-GS staff would be able to generate necessary reports on time and with accuracy.

In this information age, similar projects are likely to be conducted by researchers from various disciplines to explore ways and viability of closing the gap between features that library consumers want and have come to expect from information retrieval systems and what libraries are currently equipped to deliver.

References

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