Electronic theses and dissertations in the e-learning context: A conceptual model for Iran

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1. Introduction

E-learning, as a positive reaction by universities to the challenge introduced by IT, is characterized by: (1) separation in time and/or space between the teacher and students, among the students themselves, and between the students and educational resources; (2) interaction between the teacher and students, among the students, and between the students and educational resources by means of one or more media, especially through the Internet; and (3) a process of teaching and learning not limited to the immediate time and/or place (Oh 2003).

A major and well-established part of the resources in university libraries are theses and dissertations which are used as major research reference (Zhenglu and Yuntao 2006). The significance of these documents on the one hand and the limitations of their provision and access in print form on the other hand (Weisser and Walker 1997) have led to the emergence of the electronic versions of Theses and Dissertations (TDs) in recent years, known as Electronic Dissertations and Theses (ETDs). Widespread attempts are currently under way to develop ETDs and to establish NDLTD and ETD databases in order to enhance submission, restoring, archiving, management, dissemination and access to ETDs (Park, Zou, and McKnight 2007). However, without proper ETD Information Management System (ETDIMS) the development of e-learning at the graduate level will obviously face difficulties.

2. ETDs in Iran

Survey of the Policies and regulations regarding the creation of ETDs in 11 Iranian universities involved in graduate studies revealed that electronic versions of TDs are mentioned only rarely, the rare cases being confined to "Optic Discs" and "Floppy Discs" with no specification of format. Moreover, a few parts of the process of TD information management in these universities – from the production to the dissemination stage – are electronic. The Iranian Research Institute for Scientific Information and Documentation (IranDoc) has been one of the leading centers in Iran involved in the digitization or creation of TD databases since 2001 *(www.irandoc.ac.ir)*. By the mid 2007, this institute has able to manage digitalization of about 80,000 TDs. The digitalization involves TDs only after they had been primarily created in print format.

3. Conceptual model of ETDIMS

The problem of the development of e-learning at the graduate level in Iran is associated partly with the absence of any system of production and management of ETDs in this country. Therefore, a conceptual model of ETDIMS has been presented here as part of the infrastructure required for the development of graduate level e-learning in Iran.

3.1. System major functions

- Provision of the electronic and online environment for production, evaluation, and confirmation of ETDs at universities;
- Creation of the necessary infrastructure for the development of e-learning at the gradate level;
- Provision of online access to ETDs at national and international levels;
- Provision of additional services for the improvement of the quality of ETDs.

3.2. System levels

To function properly, the ETDIMS should have 4 levels which are presented in Figure 1.

3.3. Conceptual model

Figure 2 presents the conceptual model of ETDIMS. In this system six entities are at work which include the policy-maker, ETD national center, the universities, the authors, local users, and international users.

The system includes a "proposal" database, "temporary and permanent ETD" databases, as well as "people" database, "university" database, and "related information" database which support the functions of the system.

3.4. Sub-systems

1. **Education** of authors and users of the system;
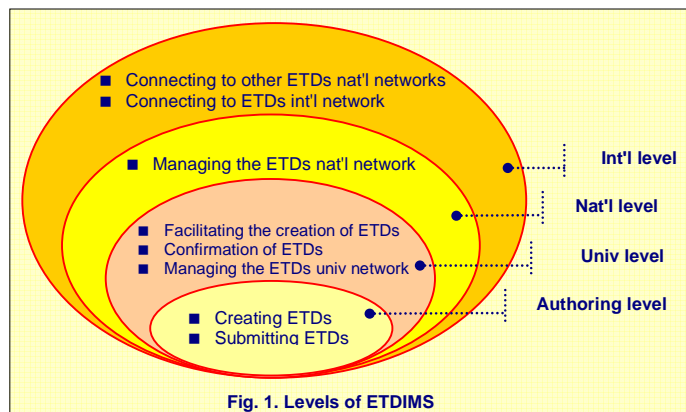2. Virtual **shelf** for teachers for restoring ETDs
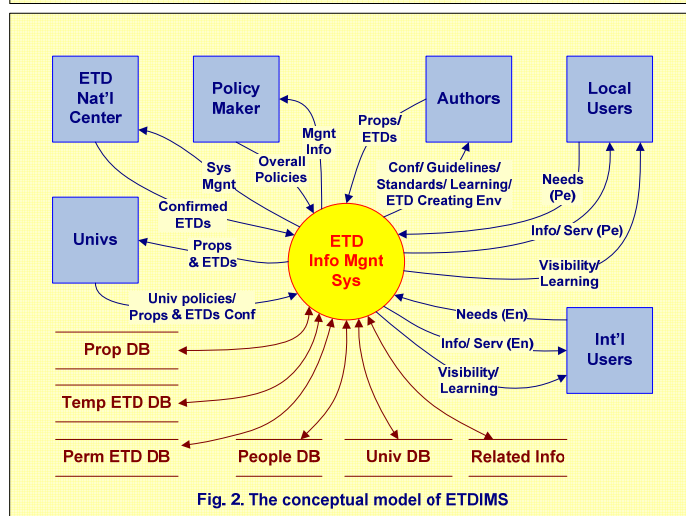

Fig. 1. Levels of ETDIMS

Fig. 2. The conceptual model of ETDIMS

3. Virtual **office** for interaction between teachers and students
4. **Preservation** of EDTs
5. **Persian** language requirements
6. **Analysis** of the information of ETDs
7. Protection against **plagiarism**
8. **Monitoring** works produced from ETDs
9. **Access** to ETDS
10. **Manuals of style** for creation of ETDs
11. **Standards** of the meta-data of ETDs
12. **Assessment** of performance of ETDIMS
13. **ePublishing** of ETDs
14. **Infrastructure** for ETDIMS at national and international levels
15. **Security** of ETDIMS
16. **Organizing** EDT information
17. **Communication** among users
18. **Databases**
19. **Portal** as a single access point to ETDIMS
20. **Search engine**
21. **Cooperation** among entities at national and international levels
22. **Translation** of ETDs from ad into other languages
23. **Submission** of confirmed proposals and ETDs
24. **Reengineering** the operational processes related to ETDIMS
25. **Managing change** from traditional formats to EDTIMS
26. **Laws** and **regulations** for facilitating the implementation of EDTIMS
27. **Additional services**

4. References

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