Vol. 2 *No. 3* *June, 2014* *ISSN: 2320 - 2653*

Utility of E-Resources Technology in Education

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Abstract

'E-Learning' is learning that takes place in an electronically stimulated environment. E-learning, web -based training, internet-based training and computer- based training are the next generation instruction method being developed today and the E-learning, users can immerse themselves in a three - dimensional environment to further enhance their learning experiences are moreover, E-learning can be done anywhere and anytime as long as the user has the proper hardware. Today, E-learning is fast becoming a reality through companies like trainer soft and others.

Introduction

In the past decade there have clearly been significant moves from paper-based to net based electronic knowledge for teacher education. This knowledge got from a physical world to a virtual world by many ways like create, store and access to manage e-resources. Electronic resources consist of data representing numbers, text, graphics, images, maps, moving images, music, sounds, etc., and programs of instruction sets.

E-resources should be readily accessible to all teacher educators and teacher trainees. Before the development of computer and internet technology, printed version of resources like books, journals, dictionaries, work books, etc played a significant role in teaching and learning process. But these printed versions are not easily accessible to all and are also expensive in nature. In this net age, e-version of books and e-journals are available in general have become inevitable and hence it is very much needed to convert the printed version into e-version for future needs. Therefore, of the different e-resources knowledge, e-resources development and preservation of them has become the need of this hour for teacher education.

Types of e-Resources

Generally, e-resources in Teacher Education, classified into two major areas viz, (1) Online e-resources and (2) Offline e-resources.

Online e-resources are e-books; e-journals; e-mail; e-library e-forum; e-learning (lessons / courses); e-shops; e-dictionaries; mobile sms / mms; search engines and meta search engines. This can be available in a three types of matter; (a) freely available resource contents (Websites); (b) licensed resources (databases available by logging by library card) and (c) onsite resources (websites related to particular content names).

Offline E-resources are CD ROM based e-resources; Offline e-books; Offline e-dictionaries; MS Office applications (documents, spreadsheets, power points); Training software; e-prompter; resources from mobile devices and secondary storage devices.

Library access for Teachers

Any library resources access by teacher educators and teacher trainees that can be accessed via computer by twenty four e-resource items viz., electronic journals; scholarly databases; information gateways and the Internet materials.

1. Electronic journals covered the five items like; full-text - whole journal available; electronic version of print; only electronic version; partial full-text - selected articles only and table of contents or abstracts only.

2. Scholarly databases covered the eight items like; bibliographic: references to published material; numeric (statistical tables); full text (complete publications); audio (collections of music); image (collections of slides); multimedia (audio-visual, animations); range of electronic information resources, huge volume of information.

3. Information Gateways covered the six items like; subject based information gateways (SBIGs); web sites that act as a gateway to other sites and information resources; rely on human creation of meta data; subject experts select, evaluate, describe, classify; Smaller, subject-focused databases; lower recall, higher precision;

4. The Internet covered the five items like; huge information resource; 3-10 billion pages of information; continually growing and changing; no national, political, scientific barriers; efficient search tools allow relatively easy navigation

Related Studies on E-resources

Electronic resources are easily accessible thru' computer net works. Electronic resources solve storage problems and control the flood of information. Now-a-days all the teacher education print sources are being digitized. Electronic information sources can be seen as the most recent development in information technology and are among the most powerful tools for teacher education.

Taxonomy of E-resources

The taxonomy of E-resources is on the basis for numeric, text, image and program, (system &data); they are described below;

1) Electronic numeric data: a) Electronic census data; b) Electronic survey data

2) Electronic text data: a) Electronic bibliographic database; b) Electronic journal (e.g., journals containing textual information); c) Electronic newsletter (e.g., newsletters containing textual information); d) Electronic document (e.g., other textual material)

3) Electronic image data: a) Electronic representational data; b) Electronic maps data; c) Electronic music data; d) Electronic sound data; e) Electronic font data

4) Electronic program: a) Electronic utility program; b) Electronic application program; c) Electronic CAD program; d) Electronic database program; e) Electronic spreadsheet program; f) Electronic word processor program; g) Electronic desktop publishing program; and h) Electronic games.

5) Electronic system program: a) Electronic operating system program; b) Electronic programming language; c) Electronic retrieval program

6) Electronic data and program: a) Electronic data and program (e.g., several types of data and the software to process the data- unable to determine predominance; Web sites with significant audio and video) b) Electronic interactive multimedia; c) Electronic online service (e.g., bulletin boards, discussion groups & lists, collections of online databases)

Guidelines for Coding E-resources

According to AACR2 (Anglo-American Cataloging Rules Chicago, USA, 1998) revised the guidelines for coding for different types of electronic resources in the websites in 2005 are as follows; Bibliographic database on the Internet; Collection of databases on the Internet; Textual continuing resource; Textual continuing resource with search software; Textual continuing resource received via email; Textual document; Cartographic material; Still images; Notated music; Census in textual form; Database containing manipulability numeric data; Computer operating system; Computer software; Computer game; Internet search engine; Web portal; System or service on the Internet, E-commerce site; Web site with significant audio and video content; Streaming video and Streaming audio.

Streaming audio means, the resource is a collection of sound recordings in electronic format. It is coded as either a musical or non-musical sound recording, depending on the content. Streaming video means, the resource is an electronic moving image. The type of computer file is combination, as there is an audio as well as moving image. Web portal defined as the bibliographic record describes the system and its content. Likewise, Census in textual form means, the resource consists largely of numeric data, perhaps in tabular form, but is the electronic equivalent of a print item; and notated music refers to the resource is an online collection of sheet music in electronic form; Cartographic material refers to the art or technique of making maps or charts and non-manuscript material.

E-books formats may be specific to a particular provider or publisher, or be aligned with a specific type of e-book reader device. The file(s) that are downloaded to a particular device are accessed via an internet link. However, once downloaded they are no longer

dependent on internet access. The e-books that are electronic resources often have an interactive element so that the user can be read or downloaded. e-books offer students access to resources in an electronic format, and the ability to load them into a device of their choice. An e-book may even offer more choices, such as video or audio versions of the text. e-books includes interactive and value added technology enabled enhancements, dynamic visual elements, and versions of graphic novels. Some e-books have no text. There are also some definitions that refer to e-books in terms of the reading devices, in particular, portable devices.

Conclusion

Electronic resources strengths are; additional skills of ICT development and timely-up date information services. Where as the electronic resources weaknesses are; need computers, need bandwidths and need technical skills to easy entry. Characteristics of E-Resources are; potentially huge; unorganized; comprehensive of everything; do not require physical space; feasibility in full content search ability; less time, less paper space; hyperlinks lead the users quickly to the required information sources and easy in archiving the content Thus the e-resources have significant roles to play in teaching and learning process and hence it is the high time for the teachers to get an awareness of these resources for their future academic growth. E-resources have been widely and rapidly accepted in academic spheres and academics in universities have widely indicated that they can able to use and access electronic resources.

Databases and electronic journals are used by academics for both teaching and research in teacher education. Teacher education academics have indicated satisfaction with their use of electronic resources and have committed their interest to the continuous use of e-resources because their use leads to better research and enhances scholarly communication. E-resources will continue to enjoy wider acceptance among Teacher education academics as the future unfolds and barriers to their use are reduced. My recommendation for teacher educators will improve the ICT skills and develop the academic carrier and improve e-knowledge through the available e-resources. Then only the today's teachers are to be a future e-teacher for future generation community. Teaching is a serious task; indeed, a noble profession. Teachers need to roundly understand the needs of students in different aspects of their learning style. It may seem difficult; however, teaching is one way of communicating with students. Considering the students' differences, teachers are challenged to become effective, adept and innovative.

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