The Teaching and Learning Process in Libraries, Information Systems and Services: A Paradigm Change

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ARTICLE DETAILS	ABSTRACT
	Society has transformed by rapid development in information and communication technology. Computer technology has occupied on teaching learning process in secondary school level. e- learning, virtual classes help to shift focus from teacher centered to student centered. ICT provides teacher with different types of tools which help teacher to transform in learner cantered mode. Teachers must have the knowledge and skills to use the new digital tools like Kahoot, GeoGebra, Open Education, eBasta , OER, Language software, Popular LMS to help the student to achieve high academics so that they can accumulate creativity, flexibility, collaboration skills. Students can access online libraries, journals, online class as individual learning. It is need of the society for research in the field of use of computer aided technology in the teaching learning process. The researcher collected the information from different type of online Articles, books, journals. The objectives of this study is to enhancing education system efficiency, effectiveness and provide tools for teachers to improve teaching learning process. The aim is to access electronic media that make the concept clear for the students. This will be the implication of my study. The Study revealed that proper use of ICT can improve teaching skills and academics of a student.

Introduction

The paradigm shift is known as move from teacher centre instruction to Learner Centre or learning centred instructions. This article attempts to define The changing role of academic librarians in the context of digital libraries. Modern teaching and learning techniques include e-learning, open and distant learning management systems, online education, virtual campus and flip classroom.

Objectives

1. To restructuring education system.
2. To enhance education efficiency, effectiveness and productivity
3. To provide tools which teachers use to improve teaching
4. To access electronic media that make concept clear.
5. To evaluate the utilisation level of open access.

Khan's academy free online courses

It is for every student, every classroom, real students. It is a non-profit with the goal of giving everyone, everywhere, free access to top-notch education. Pupils work at their own speed, standards, aligned practice and lessons covers math, grammar ,science, history, SAT and more.

Indian OER (open educational resources)

OER help in democrating lifelong, technical, vocational learning spaces which helps in skill development. NPTEL is one of the earliest OER initiative in country: joined effort of IIT and IIMS in 1993, 2003. Carnegie Mellon University OER encourages educator to associated with open context as 5R. The ability to retain, revise, remix and redistribute. It is for educational purposes. SWAYM, MOOCs is the biggest free online learning platform in the world,including school and vocational, undergraduate, graduate, engineering, and other professional fields, and is founded on the three values of fairness, quality, and access. course.

Geo Gebra is made for teaching and studying dynamic mathematics. Everyone has the opportunity to experience the remarkable discoveries that mathematics enables thanks to its multiplatform software with interactive geometry, algebra, statistics ,calculus application)from primary to universal level.

E Basta

The government's digital India projects are called E Basta. A framework for making the school book available digitally as eBooks that can be read and used on tablets and computers has been developed by this project. Publishers can publish their resources on the portal for the use of schools. Students can download from the portal. Schools may distribute them through media like SD eBasta app. Teachers can choose content according to their teaching methods. Access to variety of, materials such as audio books, animation, simulation, and text

vehicles. Long term reduction cost reduces the burden of books.

Analytical chemistry 2.1 open textbook library Every topic has full explanation.

Open Ed

Higher education and student learning are transformed by open textbook libraries. Authors and publishers grant licenses for the unrestricted use and adaptation of open textbooks. Resources for class 10 math that cover the essentials of all advanced math ideas and subjects. Students are exposed to a wide range of significant ideas in the math curriculum in class 10, many of which will be crucial in subsequent years. Students in class 10 at BYJU are given access to all math-related resources, including books, question papers, notes, and a syllabus.

E-Pathsala

Flipbooks, e-books, movies, and audio files are all stored on the web and mobile apps. Smartphones, tablets, laptops, and desktop computers may all be used to access resources. It is accessible in several languages, including Hindi, English, and Urdu.The app is very small in size(less than 7MB)and required less memory. It was initiated jointly by the Ministry of Human Resource Development.

 Total e textbook is 504

Total e resources is 3886

E- Gyankosh

The widespread use of ICT in the teaching and learning process has been encouraged by the Digital India program. NCERT's E Pathsala was created to showcase and disseminate all educational e-resources, including audio, video, textbooks, and a host of other digital materials. In addition to

achieving the fourth Sustainable Development Goal, it aims to bridge the digital divide and provide all people with equitable, high-quality, inclusive education and lifelong learning. device.

NDLI

The nation digital Library of India is a virtual repository of learning resources providing services including textbooks, articles, videos, audiobooks, lectures, simulations for learner's user community. The aims of this the goal of the project is to gather and compile metadata from many national and international digital libraries and give a comprehensive text index. It is maintained by IIT Kharagpur.

Software for science teachers

.Labster virtual labs for individual learning experience. They also provide a valuable platform for group work. The simulations are 3D Animations, storylines which create a realistic environment.

NASA

These resources offer visualisation and information on climate change that educators may utilize to teach environmental science and Earth surface science. New information is often added to the free platform. Users may gather and analyze student data using the Google Science Journal app. Their phones may be converted into laboratory sensors that measure temperature, motion, light, sound, and other   events.

KAHOOT

In order to make learning interesting and enjoyable for the students, this software may be significantly modified by them for formative evaluation, interactive presentations, group discussions, quizzes, and game-based learning.

Language software

By offering a useful set of reading, writing, and study resources, it makes pupils more self-assured, self-reliant, and productive learners. Dragon voice recognition software is used to convert speech to text.create readable PDF, Word, and plain text documents from printed paper documents and picture files. It helps students to study, revise and increase their understanding.

Free and open LMS

Unlike the majority of learning management systems, Moodle is a free and open-source platform. It was created by a team of developers who incorporated drag and drop tools and valuable resources to enhance user experience with the extensive language support. Moodle enables Its learning settings are accessible to and beneficial to learners from divorced backgrounds. It has become well-known around the world as a trustworthy platform.

Google Workspace

A collection of Google workspace applications that use the learning tools interoperability standard to work with LMS. LMS learning management system that is built to work with Google workspace accounts. It can use existing Google drive content to create courses and allows administrators to create content assign it to students and measure student programme. 1s learning management system adds structure including courses, sections and lessons along with measuring student progress. Administrators can create content, assigned content to students, measure student progress and more from the administrative view. This app is not compatible with personal Gmail accounts.

LMS types

cloud based Unlike open source LMSs, closed source LMSs do not grant access to the source code and require a license to utilize. Technical complexity are alleviated, even though some managers and educators may find it less useful. The LMS vendor handles design, updates, and upgrades, giving you time to concentrate on training quality and content management without worrying about IT. Self-hosted or on-site LMS

This is also closed source elements and requires a licence to use and managed by LMS venders but it is hosted locally in an institution.

> **Methodology:** The researcher collected the information from different type of online Articles, books, journals.
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> **Findings**
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> 1.Proper use of science and technology can help in achieving desired results.
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> 2. The use of ICT can improve performance, teaching administration and develop relevant skills.

3. The ICT provided a platform for sharing information and knowledge.

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