Use of ICT for Student-Centered Learning in Higher Education

Selected Topics

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Foreword

It is with great pleasure that I write this foreword to this publication by the Staff Development Centre (SDC) of the Wayamba University of Sri Lanka for the 7th Intake of the Certificate Course in Staff Development.

The SDC has made its mark in training all categories of staff of the Wayamba University of Sri Lanka and has extended its services to outside institutions as well. The training of newly recruited academic staff members of National Universities including ours has been very effective in the past. The 7th Intake too includes a number of academic staff members from other HEIs, especially from the SLIATE.

I congratulate the Director, Staff Development Centre and his staff for the active role played in training of academic, administrative and non-academic staff of the University and extending its services to outside institutions.

I wish the SDC of Wayamba University of Sri Lanka and participants of the 7h Intake all success in their future endeavors.

Prof. S. J. B. A. Jayasekara
The Vice Chancellor
Wayamba University of Sri Lanka

Preface and Acknowledgment

This text presents an extended and revised collection of articles on the seldom discussed theme: the use of ICT in Higher education.

The first article discusses how the evolution of ICT in universities clearly changes the way education is conducted. It further elaborates on the importance of ICT to pave the way for a new pedagogical approach, where there is unparalleled ability to spread knowledge and disseminate information. Moreover, the rapid change in technology, social, political and global economic transformation brought about through ICT which can certainly be used to improve the quality of teaching and learning in any tertiary education institution is discussed.

The next article elaborates on the use and importance of e-learning through various technologies to increase the efficiency and effectiveness of the education throughout the nation. Undoubtedly, self-learning is essential for higher education today. Simply stated, self-learning requires the ability for a student to work independently or without help. ICT plays a key role in serving self learners. The next article explores the issues learners face in terms of using ICT for self learning and means of overcoming these obstacles.

The fourth article emphasizes on how ICT can be used as a tool for classroom management in general and specifically for managing activities, student behavior and performance management in the classroom. Social networking is highly popular among students as well as

the academics for many reasons; it encourages peer-to-peer dialogues, promotes the sharing of resources, and facilitates collaboration and developments of communication skills and employability. The last article broadly discusses whether and how the usage of social networks should be integrated in to the higher education system.

We would like to convey our very special thanks first to, Prof. S. J. B. A. Jayasekara, the Vice Chancellor of the Wayamba University of Sri Lanka for his continuance guidance and support extended to us throughout his tenure to accomplish this difficult task. Our sincere gratitude is extended to the authors of the five selected articles published in this book for their hard work and commitment. Among many who have supported us throughout the process, we very specifically thank Ms. Apsara Amarasinghe, Ms. Madhavi Dassanayake, Ms. Dinusha Debarawatta and Ms. Erandi Wijesinghe – all attached to the Faculty of Agriculture & Plantation Management of the WUSL and followed the CCSD at the SDC/WUSL under our guidance – and Mr. Kapila Ranaraja (Computer Application Assistant) and Mr. Tharaka Gunathilake (Technical Assistant) of the Dept. of Agribusiness Management / WUSL for their untiring efforts in bringing all articles into one format to produce the book in this fine quality.

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04th April 2014

List of Content

Effective Use of ICT in Higher Education

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Introduction

Educational systems around the world are under increasing pressure to use the new information and communication. ICT is important for bringing changes to classroom teaching and university teaching. Adapt and effective use of new learning management system required certain skills for all the stakeholders. These skills help to become lifelong learners within a context of collaborative inquiry, the ability to work and learn from experts, peers in a connected global community.

ICT includes communication devices or applications, encompassing: radio, television, cellular phones, networks, software, and satellite systems, as well as the various services and applications associated with video conferencing and distance learning. When used appropriately, different ICTs help expand access to education,

strengthen the relevance of education to the workplace and raise educational quality by creating an active process connected to real life.

The evolution of ICT into universities clearly changes the way education is conducted. Not only is it possible to work with distance learning and achieve a closer collaboration between different universities, but also paving the way for a new pedagogical approach where there is unparalleled ability to spread knowledge and disseminate information.

The pace of change brought about by new technologies has had a significant effect on the way people live, work and play worldwide. New and emerging technologies challenge traditional process of information use and dissemination and the ways information is managed. Easy worldwide communication provides instant access to a vast array of data, challenge assimilation and assessment skills, rapid communication plus increased access to ICT at home, work and in educational establishment.

For developing countries, ICTs have the potential for increasing access to and improving the

relevance and quality of education. It, therefore, represents a potentially equalizing strategy for developing countries. ICTs greatly facilitate the acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to enhance educational systems.

The pervasiveness of ICT has brought about rapid change in technology, social, political and global economic transformation. It is widely acknowledged that ICTs can be used to improve the quality of teaching and learning in any tertiary institution.

The prevalence and rapid development of ICTs has transformed human society from the information technology age to the age of knowledge. In fact, ICTs are becoming natural part of man's daily life, thus the use in education by staff and students is becoming a necessity. Certainly, the present and future academic global community will utilize ICTs to a higher degree.

This has made it imperative that undergraduates not only need to use ICTs, but they need to become comfortable with using them. This is to ensure that they participate fully in life of the

contemporary information age and also to use it to accomplish their everyday task.

When a university wants to implement such Learning Management System certain critical factors need to be taken into account, including:

- What types of ICTs are available to undergraduates for use within the University?
- To what extent do undergraduates make use of ICT?
- What are the reasons for undergraduates' use of ICT in education?
- What are the problems undergraduates face with the use of ICT?
- What are the solutions preferred to the problems undergraduates face with the use of ICT?

Benefits of ICT

Research has shown that the appropriate use of ICTs can catalyze the paradigmatic shift in both content and pedagogy that is at the heart of education. ICT-supported education can promote the acquisition of the knowledge and skills that will empower students for lifelong learning. Some of

the benefits that can be derived from the use of ICT in education are discussed, in turn:

Active Learning

ICT-enhanced learning mobilizes tools for examination, calculation and analysis of information, thus providing a platform for student inquiry, analysis and construction of new information. Learners therefore learn as they do and, whenever appropriate, work on real-life problems in-depth, making learning less abstract and more relevant to the learner's life situation. In this way, and in contrast to memorization-based or rote learning, ICT enhanced learning promotes increased learner engagement. ICT-enhanced learning is also "just-in-time" learning in which learners can choose what to learn when they need to learn it.

Collaborative Learning

ICT-supported learning encourages interaction and cooperation among students, teachers, and experts regardless of where they are. Apart from modeling real-world interactions, ICT-supported learning provides learners the opportunity to work with people from different cultures, thereby

helping to enhance learners' teaming and communicative skills as well as their global awareness. It models learning done throughout the learner's lifetime by expanding the learning space to include not just peers but also mentors and experts from different fields.

Creative Learning

ICT-supported learning promotes the manipulation of existing information and the creation of real-world products rather than the regurgitation of received information.

Integrative Learning

ICT-enhanced learning promotes a thematic, integrative approach to teaching and learning. This approach eliminates the artificial separation between the different disciplines and between theory and practice that characterizes the traditional classroom approach.

Evaluative learning

ICT-enhanced learning is student-directed and diagnostic. Unlike static, text- or print-based

educational technologies, ICT-enhanced learning recognizes that there are many different learning pathways and many different articulations of knowledge. ICTs allow learners to explore and discover rather than merely listen and remember.

Problems Militating the Use of ICT in Universities

Empirical studies have indicated that even teachers who have competence in the use of ICT do not integrate them in their teaching. Problems of quality and lack of resources are compounded by the new realities faced by higher education institutions battle to cope with every increasing student's numbers. Not only have higher education systems expanded worldwide, the nature of the institution within these systems has also been shifting, through a process of differentiation.

The obstacles for ICT implementation include, amongst the others: Insufficient number of computers; Teachers' lack of ICT knowledge/skills, difficult to integrate ICT to instruction; Scheduling computer time; Insufficient peripherals; Inadequate copies of software; Insufficient teacher time;

Inadequate simultaneous access; Inadequate supervision staff, and Lack of technical assistance.

The most common problems associated with the effective implementation of ICT can be attributed to: Lack of qualified ICT personnel; Cost of equipment; Management attitudes; Inconsistent electric power supply; Non-inclusion of ICT programmers in teacher's training curricula and at the basic levels of education.

e-Learning for Higher Education: Guidance for a Beginner

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E-learning Concepts

There are plenty of definitions for e-learning, the one defined by William Horton (in E-Learning by Design, 2012), i.e.: "*E-learning is the use of electronic technologies to create learning experiences*" is much preferred, because it uses two key words "electronic technology" and "learning experience", which are changing in nature and best describes the future too.

Technology is a term having broader meaning especially in electronic, and it is emerging day to day and learning experience was changed by it. For example Tablets, Smart phones, Netbooks, iPads, iPods, e-book readers and even PDAs are changing everyone's life rapidly. As we know the experiences Mobile learning, Social learning, Virtual learning environment, Virtual classroom,

Web based learning, Computer based learning, Self-paced or Online education all refer to the same thing "e-Learning". Those are the choices for today's educators from primary to tertiary so it is worthwhile to know and use e-learning to increase the efficiency and effectiveness of the education throughout the nation.

E-learning comes in ***two flavors:***

***Traditional*:** courses include in depth of content and preparation, and are usually produced by field experts, to give the Learner a real understanding of the subject.

***Rapid*:** subject or the courses are produced rapidly and liable to change with or without a live instructor.

Rapid E-learning again classified into:

- **Asynchronous** refers to interactions between sender and receiver can never happen in real time.

- **Synchronous** refers to interactions between sender and receiver happen in real time.

The “value chain framework” considered to be the backbone of E-learning that thrives the facilitation of it continuously. Analysis of the value chain can help an institution to determine what type of competitive advantage to follow, and how to proceed. There are two components of it, including: (1) the value chain of the industry, and (2) the internal value chain of the organization.

To recognize the tasks of the internal value chain, the institution must first seek separate activities that create value in different ways. A range of different activities are course design, online registration, program and course promotion, counseling, etc. Each of these activities has a particularly different cost, cost drivers and assets, involves different people and creates value in a different way.

Webportals

In those, users get in touch with course details, requirements, beginning date, time and notices for them. Some of which are explored below in brief:

Blogger

Blogger is Google's free tool for creating blogs or web blogs**.** Ease to create and free to use. It shows the creativity of staffs/students in the relevant field (to try, visit: www.blogger.com)

Inmedius Knowledge Navigator

As indicated in its website: www.gen21.com, **"**Knowledge Navigator is completely customizable, Web-Based Learning Portal **(**the end user's Personal Learning Portal). Learners access courses, grades and notices via a single, user-friendly interface that requires no training."

Ning

Ning is an online service at www.ning.com allows us to set up public or private community blogs. Each member has their own profile, like social networking sites, Ning enables us to set up discussions and chats with other members. Ning gives students a safe place to meet and share ideas, i.e. it enables groups of students and faculty to continue to connect outside of class. Ning is free but to use more features we need to pay (premium

services such as more storage or bandwidth and to run your site without Ning-ads.)

YouTube

YouTube is a video sharing website that allows users to upload videos to the web. Videos uploaded to YouTube can be accessed and viewed by a selected group of users or open for anyone to see. Users can also view, comment, rate, embed and link their videos as well as the millions of videos posted on the site. Register with YouTube is free and easy. YouTube has become a great video resource for educators; YouTube EDU focusing on university related videos and lectures.

Zotero

Zotero is a free, easy to use tool to help us collect, organize, cite, and share our research sources, also allows automatically capture citations, store pdfs/ images / web pages, cite from Word or OpenOffice, make notes, and access to library from anywhere. To check go to www.zotero.org

Skype

It is powerful VoIP tool, In addition to making telephone calls, users can use Skype to make video calls, to send instant messages, and to transfer files from one computer to another. Most calls are free (depending on the service options you select) when they are made to other PCs, but for mobile devices or landlines for a fee. Skype is a good tool for colleagues, students, and faculty members. Downloadable at www.skype.com

Sky Drive

Sky Drive like a "pen drive online" is a free online file storage application that is a part of the Windows Live suite, gives users 25 GB of free, password-protected storage; after uploaded, users can access their files from anywhere at www.skydrive.live.com .Faculty can use Sky Drive to store important files that they need to access from anywhere. (It might include manuscripts, research, or course-related files) so faculty can then share these files with other colleagues or students as needed.

My Podcast

My Podcast is a free tool that makes us easy to record, publish, and air podcasts. It can be found at www.mypodcast.com and used by both PC and Mac users; free podcast recorder is only available for PC users. The free recorder is designed to easily help users record and upload podcasts to the mypodcast web site. After podcasts are uploaded to the mypodcast.com, they are then published live on the Web. MyPodcast can be used to record audio lectures or other audio presentations for faculty by staff/students.

Google Docs

Google Docs is a web based office application from www.docs.google.com that includes a word processor, a presentation tool and a spreadsheet. It can change our way of thinking about collaborative work. The three tools of Google Docs support multiple authors to edit the same document, a presentation or a sheet at the same time, tracking revisions and showing, in near real time, for each author. Since the documents are stored online, they are available on any computer connected to the Internet. We can also quickly publish what we

create online with a button click. Students can use Google Docs to collaborative work, including group papers. Instructors can easily monitor individual contributions using Docs's revision tracking tools.

Bubbl.us

Bubbl.us is a free and easy to use web application that lets students/colleagues brainstorm online at www.bubbl.us We also can create colorful mind maps to illustrate complex relationships, share and collaborate with others, embed our mind maps into websites, and email, print, or download the mind map for later use.

Audacity

Audacity is "free and open source software for recording and editing sounds." This simple to use application enables teachers to record and edit lectures. Similarly, for students making audio presentations and to give audio feedback and available at www.audacity.sourceforge.net

Contents

In case of e-learning, content is the place where everything starts rolling; it depends on the learning outcomes intended for diploma or degree students. Content might be segmented into lessons, modules, courses or programs. Quality assurance should be made to meet the quality of the content.

LMS/LCMS

It is the center system should be Learning Management System (LMC) or Learning Content Management System (LCMS) which deals with knowledge management. There is a strong argument among facilitators which to choose whether LMS or LCMS? Both have pros and cons but I prefer hybrid solution for an effective learning environment.

LMSs
Moodle, canvas etc.

Most of the universities, higher educational institutions including ATI and schools are using moodle as LMS in Sri Lanka.

Moodle

Moodle.org, gives the definition of Moodle as a "Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). It is a free web application that educators can use to create effective online learning sites." Well explained; actually anyone can download and use moodle at free of charge and has a strong community support to assist users with problems that may occur.

LCMSs

Drupal, inmedius, Sakai, GeoGebra, Joomla, plone etc.

Drupal

Drupal is also open source CMS from www.drupal.org It is popular! White House.gov website (owned by the United States of America) is run on Drupal and many others including World Economic Forum, Stanford University, and Examiner.com.

Sakai

Sakai is also collection of open source tools developed by a sakai community (Individuals, large number of professionals from institutions and universities) to provide a virtual learning environment suitable for on-campus and distance learning too from www.sakaiproject.org

GeoGebra

GeoGebra is free and cross platform dynamic mathematics software from www.geogebra.org or all levels of education including geometry, algebra, tables, graphing, statistics and calculus in one easy-to-use package. It could be an authoring tool to create interactive learning materials as web pages.

Authoring tools

Which implies multimedia creation tools, it includes capturing, editing (Voice, Video, Picture or Website), creating and designing. Some of the "good" once are: XStream Software – RapidBuilder, CAST Book Builder, CourseLab Authorpoint, MOS solo, Balabolka, Power talk, Voki, Wink, xerte, Ustream etc.

Xstream

XStream Software is a leading tool for Rapid E-Learning, Multimedia Content Authoring, Administration/Tracking, and Web-based Communication and Collaboration, Performance Analyzer v2.0 also a new release of XStream's 100% programming-free simulation-based assessment authoring technology. It can be found on www.xstreamsoftware.com

CAST Book Builder

According to its site, it is used to create, share, publish, and read digital books that engage and support diverse learners according to their individual needs, interests, and skills. It is available at www.bookbuilder.cast.org Teacher can induce the student to build the book and even to evaluate online.

Courselab

CourseLab is said to be a powerful, yet easy-to-use, e-learning authoring tool that offers programming-free WYSIWYG environment for

creating high-quality interactive e-learning content which can be published on the Internet, Learning Management Systems (LMS), CD-ROMs and other devices. Only CourseLab2.4 is free and can obtain at www.courselab.com

Authorpoint

It converts Microsoft PowerPoint files to SCORM Compliant rich multimedia (Flash) presentations for sharing across platforms.

It can be downloaded from www.authorgen.com/authorpoint, and the features include motion path animations, sound on animations, Transition sounds, animated GIFs, narrations, and rehearsed timing.

MOS solo

MOS – stands for: MindOnSite, solo is a free, interactive, graphically appealing, and media-rich eLearning module. What can be done with it? We can do, for example, courses, quizzes, evaluations, demos, presentations, tests, and surveys (download at: www.mindonsite.com). The content created in MOS Solo can be uploaded onto a SCORM 2004

compatible LMS / LCMS. Content developed in MOS Solo can be deployed on all main mobile devices and tablets. (iPad, iPhone, Android and Windows.)

Balabolka

Balabolka is a free Text-To-Speech (TTS) tool; on-screen text can be saved as a WAV, MP3, MP4, OGG or WMA file (audio file).Its address is www.cross-plus-a.com The program can read the clipboard content, view the text from AZW, AZW3, CHM, DjVu, DOC, EPUB, FB2, HTML, LIT, MOBI, ODT, PRC, PDF and RTF files. When the audio plays back, the text is displayed synchronously.

Power talk

PowerTalk is free and open source Text To Speech program that automatically speaks any presentation or slide show running in Microsoft PowerPoint. Web address of this is www.fullmeasure.co.uk. It can speak hidden text attached to images.

Voki

Voki is a classroom management system, Voki intended for non-commercial use, but "Voki classroom" costs. We can create customized avatars and assign the voices for them. Its website is www.voki.com

Wink

Wink is a free Tutorial and Presentation creation tool, primarily aimed at creating tutorials on how to use software Using Wink you can capture screenshots, add explanations boxes, buttons, titles etc and generate a highly effective tutorial for your users. It is downloadable at www.debugmode.com

Xerte

Xerte Online Toolkits 2.0 is a suite of tools for content authors. E-learning materials can be authored quickly and easily using browser-based tools, with no programming required, and content can be delivered to all devices. It can be found at www.nottingham.ac.uk

Other tools from the Xerte:-"Xerte 2.x" is a development environment for e-learning with all the functions for creating interactivity. "Xerte Flex Compiler" is a set of tools for developers working with the open source Flex SDK to create advanced interactivity and applications for the Flash Player. Xerte Flex Compiler can create applications for iOS and Android.

"Xpert" is a repository for sharing and reuse of learning materials. "Xerte Online Toolkits" integrates with Xpert to make it easy to publish content and have it open on the surface in the Xpert repository for students to use and other content developers to reuse, adaptation and reuse.

Ustream

Ustream is a web application that allows computer users to stream live video on the web and therefore transmitted to the world. In addition to broadcasting, It has additional features such as chat rooms, the ability to record broadcasts, and the ability to embed. It is downloadable at www.ustream.tv. It can enable faculty to broadcast their lectures live to the world. It would be good for conferences or workshops to a larger audience.

More over broadcasting student work, or research also easy.

Collaboration Learning Software

The last integral part of e-learning system is which enables possibly large number of people to text, transfer ideas or share files simultaneously and even send conference voice also. Threaded discussions are too possible. Useful software are: *Edmodo, Epals, Elgg, Openstudy, Padlet, Scratch* etc.

Edmodo

Edmodo is an online networking platform for teachers and students from www.edmodo.com Unlike Facebook, it is safe and controlled environment; appropriate for school or University. It can be used within-class, but it also provides several ways for teachers-to-teachers connection.

ePals

ePals is an online educational community operated from www.epals.com where learners all around the world connect and collaborate on projects that often focus on issues of global

awareness and culture, it simply express "Where learners connect"

Elgg

It is an open source social networking engine downloadable at www.elgg.org so Elgg is free to download and use; also dual licensed. In GNU General Public License v2 and the MIT License.

Openstudy

Openstudy encourages students to meet students via online at www.openstudy.com to learn among them free by study groups.

Padlet

Wallwisher is now padlet; denotes the simplicity of a notepad. Padlet came by **pa**per + woo**d** + tab**let**. It is used for teaching, wishing friends, noticeboards, bookmarking, discussions, brainstorming, notetaking, quizzes, planning events, making lists, watching videos, and collecting feedback. It's really cool to use at www.padlet.com

Scratch

It is a project for Kindergarten at MIT Media Lab though it's interestingly helps young people learn to think creatively, reason systematically, and work collaboratively, we can program (by only *drag and drop*) our own interactive stories, games, and animations — and share our creations with others in the online community.

Secure Server

The Student learning system and the contents developed will securely be on the server named as "secure server", if we have linux as a server it will be cost cutter, and also secured; to have the fast internet access WiFi is good.While conducting exams on Moodle; we can use a "secure browser" which protects browsing internet and exam frauds and only allows selected application to be run and tasks can be executed like sleep, disable task manager off etc.

Issues of Using ICT for Self Learning

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Importance of ICT in Education

Information and Communication Technology has quickly become one of the basic requirements of modern society. Globalization and advances in technology have led to an increased used of ICTs in all sectors specifically in education. Uses of ICTs in education are widespread and are continually growing worldwide. ICT connects all areas of the education. It plays a major role in education, from kindergarten to adult education. ICT has become one of the key skills needed to access and enhance learning of all types.

ICT supports learners as well as the educators. Internet is a powerful resource for education. Interest in and use of ICTs in education appears to be growing, even in the most challenging environments. Educators, policy makers and researchers all seem to be of the same opinion on

the effect of ICT to have a significant and positive impact on education.

Self Learning

Self-learning can be recognized as taking in information, processing it, and retaining it without the need for another individual to be teaching it in order for the understanding to take place. Simply stated, self-learning requires the ability for a student to work independently or without help.

In self learning, students are ready to assume high scale of self-direction. Students are required to make decisions about what they want to learn, how they want to learn. Also students have to prepare a time frame within which they will complete what they want to study.

Self-taught students are motivated by the sense of a job well done. They are self-motivated because they have the confidence that if they don't know an answer to a question, they know how to use the resources available to find out the answer. Self learning should be established in the student a concept of continual success, ongoing and steady success that results from carefulness and the detection of quality.

Self learning can be done anywhere at any time. It is unlimited but must be structured. A good record-keeping system is recommended so the student can look back and understand the progress he or she is making.

Issues in Using ICT for Self Learning:

No argument on the vital role of ICT plays in serving self learners. But, quite a lot of self learners experience various issues in utilizing ICT in achieving their educational goals. Some of the issues regarding using ICT which tend to demote self learners can be identified as (1) ICT literacy, (2) Selecting tools and technologies, (3) Awareness of new innovations of ICT, (4) Equity and (5) Privacy and safety.

ICT literacy

"Literacy" was captured in international census data by estimating the percentage of people who could read and write. The term "information literacy" first appeared in the mid-1970s as knowledge grew that information was becoming great and uncontrollable.

According to the American Library Association; "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information". In other words, "literacy" implies more than vocabulary and awareness; it requires critical thinking too.

ICT literacy cannot be defined primarily as the mastery of technical skills. The concept of ICT literacy should be broadened to include both critical cognitive skills as well as the application of technical skills and knowledge. These cognitive skills include general literacy, such as reading and numeracy, as well as critical thinking and problem solving.

As ICT is playing a major role in education in the present day, in self learning, ICT literacy has become a necessity. It is required to use digital technologies (computers, PDAs, media players, GPS, etc.), communication and networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function self learning. Also it is required to have a fundamental understanding of

the ethical/legal issues surrounding the access and use of information technologies.

Most of the self learners believe that the ability to handle a computer solve all the ICT issues. With the existing knowledge they try to achieve all the educational goals with ICT. That is the main cause for failures in utilizing ICT in self learning. Other critical problem is the insufficient opportunities to acquire that type of awareness.

Selecting Tools and Technologies

Technology changes rapidly and so do the specific tools available for education. Each tool has its own advantages and disadvantages. It is very important to select most appropriate tools to achieve the specific educational goals. Learning is more effective when the same information is presented in different ways to appeal to different senses. Computer-based learning does not just involve typing and mouse clicks. Simulators with sophisticated instrumentation attached to computers are also effective learning tools. In addition to being dynamic, computer-based tools are often interactive as well.

Many related new technologies, including satellite broadcasting and multi-channel learning, have the potential to greatly increase access to education. Today, the Internet is widely used by most of the self learners. Open source software, satellite technology, local language interfaces, easy to use human-computer interfaces, digital libraries, etc. available to support them.

Moreover, over the years Information and Communication Technology (ICT) has been rising ensuring greater accessibility to education with all its advanced tools like teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counseling, interactive voice response system, and CD ROMs., e-learning has made education easily accessible, affordable and qualitative.

Most of the self learners appear with a vast variety of new tools and technologies. The critical situation can be identified as the irrelevancy of most of the tools that they have chosen. Occasionally, mismatches exist in between their education goals and tools and technologies they selected. Another problem can be identified as the effort of achieving all the educational goals with

whatever the available tool, without checking the best tool.

Most of the self learners especially from non-IT people don't know how to compare the available tools, evaluate them and to select the best suited tools and technologies. Less understanding of the importance of selecting the appropriate tools and technologies has made the situation more critical.

Awareness of New Innovations in ICT

As the most evolving field, Information and communication technology extends its strength rapidly. A vast variety of supporting tools and technologies has been coming out aiming the self earners. As the learners are in a struggle to achieve their educational goals with the existing tools and technologies, rarely pay attention on new innovations of ICT.

New content management systems and learning management systems provide with vast variety of features to assist self learning. Many features arrive as apps to be added to the existing earning environments. Entirely new tools and technologies are coming out each day and also

updates to the existing tools and technologies occur frequently.

Awareness of these innovations is very important, but unnoticed by most of the self learners. Many of the non IT learners purposely neglect this from their learning process assuming as a way of wasting time. This has stopped them from utilizing new tools and technologies in their learning.

Equity

Equity deals with accommodating and meeting the specific needs of specific individuals. That doesn't mean treating equally. Equity issues may arise in many views. Gender equity means the difference in between a boy and a girl in using ICT. Disparities mean having programs benefit both the very remote areas with low technologies and as well as the urban areas with high technologies equally.

Implementation capacity is the ability to find resources and facilities to use ICT. Clearly there are equity issues related to the uses of ICTs in education, especially in self learning. As most of the

new innovations in ICT aim the industrialized countries where existing infrastructure is the best, the learners in remote areas with low technologies face the problem of acquiring or utilizing them.

While there is much research on the impact of ICTs in developed countries, there has been limited research into these issues in developing countries. The issues of using ICT, emerging in different learners cannot be fulfilled by most of the new ICT developments.

Providing access to ICTs is only one feature of efforts to address equity issues. Equal attention must be paid to ensure that the technology is actually being used by the target learners and in ways that truly serve their needs.

Privacy and Safety

Data protection is another burning issue affect on self learners. In self learning, the learners are always opened to internet, disseminating information to the outside. This information may contain educational content as well as personal information. Most of the self learners are not aware of the methods to secure privacy and to prevent from hackers and viruses.

Computer hacking is the act of modifying computer hardware or software, in order to cause damage to sensitive data on a computer or to simply steal confidential information.

Computer hacking can access sensitive user data and risk user privacy. Hacking activities gather confidential user information. User information, in the hands of computer hackers, makes it in danger to illegal use and operation. Hackers may even delete sensitive information on gaining access to it. Deletion or manipulation of sensitive data with intent to achieve personal gain is another effect of computer hacking.

A user whose computer has been hacked is at the risk of losing all the data stored on his/her computer. Manipulation of sensitive user data is a serious effect of hacking. Identity theft is another important result of computer hacking. Identity theft is a fraud that involves posing to be someone else, with intent to gain unauthorized access to information or property. It refers to an illegal use of someone else's identity for personal interest. The advances in technology have led to the evolution of key-logging software, which is capable of tracking

and recording every key stroke by the user, thus stealing passwords and account details. Another serious effect of computer hacking is the denial of service attack. This refers to the attempt of making computer resources unavailable to authorized users.

Malware is a term that is used for malicious software that is designed to do damage or unwanted actions to a computer system. Examples of malware include Viruses, Worms, Trojan horses, Spyware and Rogue security software. A computer virus is a small software program that spreads from one computer to another and interferes with computer operation.

A computer virus might corrupt or delete data on a computer, use an email program to spread the virus to other computers, or even delete everything on the hard disk. A worm is computer code that spreads without user interaction. A Trojan horse is a malicious software program that hides inside other programs. It enters a computer hidden inside a legal program, such as a screen saver. Spyware can install on your computer without your knowledge.

These programs can change your computer's configuration or collect advertising data and personal information. A rogue security software program tries to make you think that your computer is infected by a virus and usually prompts you to download or buy a product that removes the virus. Most of the self learners suffer of lack of knowledge on these types of dangerous programs.

They are in risk especially in online environments like learning management systems, social networks and using mail services. Most of the self learners are not aware of the symptoms of this type of attack and prevention procedures. The other critical point is that many people believe that implementing security features like antivirus software reduces the speed or the performance of the computers, and they refuse them

Use of ICT for Effective Classroom Management

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Introduction

We are in the twenty first century, where the technology is applied widely for every application in all over the world. With the advance in technology, it has created a highly diverse, globalized, and complex society which is highly competitive in nature. In developed countries students are referred to as "digital natives", and today's educators as "digital immigrants" simply because the using of technology for education purpose.

Present students are digital learners; they have the access to internet, high computer literacy made them to learn new things in an effective manner. In the same way lecturers in higher education sectors of developed countries use the modern technology

to transfer the knowledge to students and to make the classroom work easier.

In this highly complex and competitive world to become recognized in higher education sector, it is a must to develop and apply latest technology for teaching and learning process. In most of the cases we are still used to the legendary black board or white board teaching methods when transferring knowledge and further the technology is used in very limited applications.

Unfortunately this directs our teaching and learning process to a highly teacher cantered learning environment which the student is spoon feed. In an environment of teacher centered leaning both student and teacher is focused to a particular structured syllabus and some contents, this will not improve the creativity of the student and even the teacher is not updated with the latest contents of the subject.

To compete with the world, to become recognized in the higher education sector, it is essential to move forward with technology and using it in teaching and learning process. ICT is defined as Information and communication

technology, which are the tools that can use to communicate, store and manage data. Generally ICT consist of major three parts listed as; Hardware, Software and Network.

Classroom management is defined as the tools used to manage the classroom activities smoothly. This even includes the student behavior and performance management in the classroom. This article deals with how the ICT tools can be effectively used to manage the classroom activities.

Information and Communication Technology can be discussed based on three major parts namely Hardware, Software and Network. Relating these components to teaching and learning process and classroom management is essential to increase the efficiency and quality of the higher education sector.

Hardware and Software Components

Hardware component includes the physical items that can use for the teaching and learning process. Actually, nowadays the hardware components are highly depend on the software component, so instead of differentiating the two

components it is more practical to discuss them together. Legendary teaching tools such as blackboard and whiteboard can be effectively replaced with modern projectors and smart boards. This does not mean that we have to totally eliminate the blackboard and whiteboard concepts, sometimes teaching subjects which include graphics and complicate diagrams can be carried out efficiently using ICT hardware tools such as projectors and smart boards.

For some subject such as mathematics, there is no substitute of a blackboard and chalk method. Solving the things in a class using the board (black or green or white) allows you to move with the class and give sufficient time for the students to absorb. As lecturers or teachers, we undergo what the students would undergo when the scribble on their notebooks even while solving the problem. Technology should implement according to the situation and in suitable conditions.

Computer is one of the miracles that human has ever produced. With the help of software installed in a computer it can be used in many applications in teaching and learning. Still even in higher education sector we see hand written notes

and handouts. These can be replaced by printed notes and handouts, normally handwriting of one person can be hard to understand by another person.

In such cases to be more effective in classroom, it is better to use the hardware tools such as computer, printer and software tools such as Microsoft word to deliver the notes and handouts. If we consider a subject such as machine drawing in electrical engineering, rather than using a board or hand drawn diagrams it is better to provide a printed note and a diagram so that the students will grasp the content more easily and efficiently.

Sometimes in laboratories we may not have all the equipment to carry out the practical, or the actual equipment in the industries may vary from what we have. In such situations ICT tools such as computer with necessary software included it will be an efficient way to demonstrate them. Power point presentations are widely used in today education sector. For some subjects, using of power point presentations is highly effective but for some subjects it is not.

Normally a student takes 1/10 of the time to understand a blackboard written theory comparing with the same content on a power point presentation. Effectiveness of a power point presentation depends on factors such as; Number of slides, Quality of pictures and diagrams used, Type of the subject intends to teach, Size of the fonts and number of words per slide, and Time duration per slide. By choosing the above factors properly, it is possible to deliver a better and an effective lecture using ICT software tool such as power point.

Network Component

With the advancement in internet and supported software the network system connects every part of the world. As an ICT tool the internet network and supported software plays a very important role. Moodle (Modular Object-Oriented Dynamic Learning Environment) which is a free e-learning platform and one of the immerging technologies which most of the higher education institutes are using in modern world.

Moodle is used to Upload lecture notes, Upload extra reading materials, Upload links to useful

websites, Provide links to official e-mail, Show the latest notices, Upload exam results, Provide access to professional websites such as IEEE, and Uploading daily important news. This technology overcomes many difficulties that a student and a lecturer will face when communicating, data storage and data handling.

Validating the content in the internet is a huge problem these days; students are likely to get misguided by the contents of internet. Validating the contents is easier using a system such as Moodle by uploading only the links of relevant and quality material for their field. Using internet facility and software such as YouTube and Skype online lectures and downloading the videos of different components related to a particular field is possible.

Applying ICT facilities such as network will enable the students and lecturers to learn about a subject topic in deep is possible. Not only that in a student oriented learning environment using online lectures and video clips will help the student to grab the content easily. These techniques will automatically drive the education system from a teacher centered one to a student oriented platform.

But the presence a lecturer or a teacher in a classroom cannot be replacing with online teaching programs. Further this technology can be used effectively in a classroom to manage the activities and improve the student imagination.

Challenges Using ICT

Information and communication technologies present a range of tools that can be used by lecturers and teachers to present and demonstrate as part of their teaching process. These hardware and software parts are advancing daily in order to make them user friendly and to add more and more features to advance the components.

The choice of how, when , where to use the appropriate technology is very complex and deepens on various factors such as availability of facilities, type of the subject, time management etc. Even the computers and other ICT tools are built in a user friendly manner it takes time to get use to the technology and use it in proper manner. Sometimes it may take a long time to adapt to the technology for lecturers and teachers.

Prior to ICT tools are uses in a classroom the lecturers and teachers must be appropriately trained to the technology giving the positive and negative sides of implementing?

Additional with the advancement in technology day by day, the ICT tools are advancing lecturers, teachers and students must expect this change and get adapt to the latest tools quickly. Lecturers and teachers must carefully choose the required tools with the required level of technology to a given curriculum.

As a developing country it may not possible to implement the latest tools which is used for teaching and learning process as the develop countries are using and moreover sophisticated technologies takes a long time to show an impact in classroom work. However, both students and lecturers or teachers should use the existing tools effectively for teaching and learning process. Sometimes the teachers' aim of using ICT for teaching process will be different from how student is using ICT tools for the learning process and that will affect the system in a negative manner.

In addition, the most important challenge is using ICT tools and transferring to a student oriented learning model will reduce the attachment between the Lecturer and Student. It is important to study this aspect before using ICT tools heavily for classroom management. There is no single or simple solution to the effective use of ICT in teaching and learning. Lecturers and teachers need support to develop both new technical and new pedagogical skills. The curriculum and its assessment need flexibility to accommodate technological change.

Effective Use of Social Networks for Higher Education

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The new era of technology has transformed the social life as well as the academic life of the students grammatically and drastically. Thanks to the digital environment worldwide range of information is now available at their fingertips. The students and the academics are enable to have access to a wide range of information via online sources such as blogs, wikis, online videos, podcast and social network sites and thoroughly opened educational resources without much of difficulty.

The Higher education is now moving forward from teacher centered pedagogy toward student centered pedagogy. Students are encouraged to upgrade their knowledge via a variety of sources including Social Network Sites (SNSs). Social networking is highly popular among students as well as the academics. It encourages peer-to-peer dialogues, promotes the sharing of resources, and

facilitates collaboration and developments of communication skills. However there is a doubt about whether and how to usage of social networks should be amalgamated in the higher education system.

What is Social Networking?

The social networking is "the use of dedicated websites and applications to interact with other users or to find people with similar interests to one's own."

Oxford dictionaries[1]

Social networking is "the grouping of individuals into specific groups, like small rural communities or a neighborhood subdivision, if you will."

www.whatissocialnetworking.com

Social Networking Sites

The online social networking widely uses websites known as social sites or social networking sites. Social networking sites can be defined as web

[1]*Oxford Dictionary. Available on: http//www.oxforddictionaries.com/definition/English/social-networking*

sites that would facilitate users to create personal profiles within that site and form relationships with other users of the same Web site. In these sites, members share common interests in hobbies, religions, politics and alternative lifestyles.

Members in these sites can be used to communicate with each other by posting information, comments, messages, images, video-conferencing etc. There is thousands of social networking sites in the world out of theses, some of the most popular sites are Facebook, Twitter, LinkedIn, MySpace, Friend Wise, Friend Finder, Yahoo! 360, Facebook, Orkut, and Classmates, Pinterest etc…

According to the report by eBizMBA Rank in September 2013, Facebook is the world's most popular social networking website with an estimated 750 million unique visits every month. The Twitter follows with 250 million and LinkedIn as goes as the third with 110 million visits monthly.

A survey done in US representing nearly 4,000 higher education faculties found that 64.4 percent of faculty use social media for their personal lives, 33.8 percent use it for teaching 41 percent for those

under age 35 compared to 30 percent for those over age 55 reported using social media in their teaching. Faculty in the Humanities and Arts, Professions and Applied Sciences, and the Social Sciences use social media at higher rates than those in Natural Sciences, Mathematics and Computer Science Blogs and wikis are preferred for teaching, while Facebook or LinkedIn are used more for social and professional connections. 88 percent of faculty, regardless of discipline, reported using online video in the classroom.

Importance and Impact of Social Networks

The usage of social networking sites have been improved considerably from the past few years. It has been found that, most of the people specially students are extensively using these social networking websites such as Face book, Twitter etc… It has become a fashion to have a profile in these popular networking sites. Everyone who is using the internet is a member of at least one and often many online social networks and it's becoming to be a socialized in the modern world. Some uses are addicted to these kinds of websites.

The social networking reduces the feeling of isolation and geographical distances in the learners. Most of the people use Skype, Facebook and Twitter to stay in touch with their friends and families with a view of eliminating depression, cultural shock or homesickness. Web conferencing tools such as Skype, Elluminate or Flash Meeting or Virtual Worlds can help in organizing virtual classes and in distance learning.

SNS also provide an incredible opportunity for businesses and educational institutes to continue its growth in online presence. It facilitates as a promotional tool and enables to build e- business related contacts. Some of the organizations use this to attract employee's attention for their organizations.

Most of the people who seek employment use social software like LinkedIn to find employment opportunities and the professional use of SNS to harvest social capital in the current digital working environment.

SNS provide opportunities within professional education, curriculum education and learning as well. Traditional approaches to learning methods

mainly involve sound and methodical lecturing. Each student works individually and they are often unaware of other students' approaches of education and activities. However, the modern approach of teaching mainly focuses on student centered learning. This is focused on each student's interests, abilities and learning styles, placing the teacher as a facilitator of learning.

The participants of social network services avail this opportunity. And as a result the move away from an educator led environment to a student led environment to inspire the students. Social networks enable students to conduct group work, create a shared area in collecting resources or to share work and to collaboratively develop a new resource or to identity approaches for study. This will motivate students in the digital space. In SNS students learn primarily through each other without direct intervention from the educator. Peer-to-peer dialogues encourage knowledge creation via critiquing each other's work in social network sites. This will also be useful in team work and would be useful for real-life practices.

The social software has been used to improve students' academic skills and especially their

literacy skills in acquiring knowledge, new cultures and new languages. Most of the students in the higher education would find it easier to write their dissertations, having experienced the tools and approaches of social software. Social software tools provide a platform for development of communities of practice. Similarly, the social bookmarking tools can be used by individual students or by groups of students to build up a collection of resources.

Social networking played a crucial role in reflective learning. Students can keep self-reflection blogs and engage in discussion. The learners are enabling to collect resources, prior to a tutorial and post questions on a blog and this will facilitate problem-based learning skills. Also, self- and peer-assessment of podcasts by students encourages self-reflection in social networking.

Benefits of Social Networking

To the Students

Socialization and collaborative learning would not normally be gained when students work individually. Social networks help to share ideas

and to approaches on a common learning space. These sites support the students to reduce isolation, depression, cultural shock and homesickness.

Both students and staff said that the use of social software increased enjoyment. It was seen as more engaging for students, and a more interesting way for them to study their subject, and led to better understanding of the course concepts. The independent and the informal learning can be developed via social software. The students may learn informally without the constant guidance from their teachers .They learn to discover, organize and use resources; to work and to learn from their peers; and to assess their own progress themselves.

A study released by Michigan State University discovered that courses that engage students on Twitter may actually see higher interaction and better grades. According to Jenkins (2006) stated that social networking services foster learning through "Participatory Culture."

Better planning can save the time and be beneficial for the students. Hence, they can use

Twitter for better understanding of the students' needs and other interactions.

Social software also provides an open environment, by posting the public all over the world and thereby be able to see the work or achievement of the students. This will encourage the students to study efficiently and effectively. Creating Students' personal spaces on blogs and wikis givers students a sense of ownership and control towards their learning and future career prospects via an e-portfolio.

Community- forums will support the students' further learning. Students are expected to contribute to group discussions and comment on their peers' ideas. Blogging helped students direct their own learning, increased engagement in course material, and promoted the development of informal learning communities.

Hall (2009)[2] states that empowering learners to design and deploy fused, formal and informal educational spaces not only extends the power of

[2] *Hall, R. (2009). Towards a fusion of formal and informal learning environments: The impacts of the read/write web. Electronic Journal of e-learning, 7(3): 58-69.*

situated, individual, educational outcomes, but can also positively extend their personal learning experiences.

To the Lecturers

SNS can be supplemented to the teaching and the learning in traditional classroom environments. It can provide new opportunities to lectures for enriching existing curriculum through creative and flexible non-linear learning experiences. Hence, Social software tools add novelty and excitement to the learning and teaching environment.

By using SNS, Lecturers are able to give early feedbacks to the students' based on their online contributions prior to the students' submission of formal assignments. In general, wiki, Flickr and Twitter are allowed the students to get immediate support without the need for formal meetings. SN is an excellent tool for educators.

This will remove the student's anxiety to ask questions or express themselves in face-to-face environments. They will feel comfortable in asking questions in social software sites. Thus students would learn skills that would normally be taught in

a formal setting in the more interesting and engaging environment of social learning.

Facebook enables teachers to provide constructive educational outcomes in a variety of fields (Pempek *et al*., 2009)[3]. A Facebook group can be created to receive feedback from the students on the proposals for new learning methods and technique assessments. This open-ended way of collecting information is richer than structured questionnaires and permits more people to contribute than to the focus groups.

Lectures will be able to judge individuals' contributions of the students in group work thus contributions visible to the group or cohort of students. This can aid evaluations and also enable support and encouragement to be provided on an individual basis.

At Mira Costa College in Oceanside, California, among several colleges using this technology, administrators created a MySpace page to communicate course offerings, deadlines, events,

[3] *Pempek, T.A., Yermolayeva, Y.A. and Calvert, S. (2009). 'College students' social networking experiences on Facebook'. Journal of Applied Developmental Psychology, 30(3), 227-238.*

and other information to current and prospective students. Social bookmarking sites, such as Delicious, Diigo, and CiteULike, can provide the resources to facilitate to develop research-based practices.

Educators will be able to integrate multimedia assets such as video clips, photos, hyperlinks and music clips within social network sites to provide useful and rich learning experiences than the traditional Blackboard and white board culture which perceive as 'stale, dry academic'.

.***To the Organizations***

Social network sites can be used for Image-building. By using blogs in social sites organizations not only attracts the students' attention but also external bodies like fund providers.

Educators will be able to decrease the drop-out of the students by picking up early signs of a student 'giving up' the courses or the students being dissatisfied with some situation or if someone is behind in their studies.

Alumni community building can be done by using social software on courses; these alumni groups can keep the conversation and dialogue after the end of the course. It also supports the green concept where no paper would be involved and it is more ecologically friendly. It will also help to reduce the carbon footprint of the institution. The use of online social networks by school libraries is also increasingly prevalent and they are being used to communicate with potential library users, as well as extending the services provided by individual school libraries'.

Threats of Social Networking

The social software tools can be incorporated in learning and teaching techniques. However in the present world there is a limited impact of social networks in formal education today. A research has found that 70 percent of the students worldwide use social networks for non-academic purpose.

Challenges to Students

Most of the students feel that it is an addiction which kills their valuable time and distraction from

academic work. Also they feel that it's a better way of socializing and not suitable for higher education. "Selwyn (2007)[4] analyzed over 68,000 Facebook wall postings by students and found that education and university-related exchanges accounted for only a small proportion of the traffic. Students, like everyone else, use SNSs primarily for social conversations."

If students are not able to understand how the social networking methods works in higher education then their learning curve for the technology will be stagnant or poor in quality. Some students may feel that learning new tools will consume more time and effort. Thus, it is challenging to manage time and resources in the higher education.

SNS do not separate personal and professional life. Thus, students are not always willing for institutions to enter their social networking site. However, some students are keen to keep the personal and academic spaces apart by having

[4] *Selwyn, N (2007). "'Screw Blackboard... do it on Facebook!' an investigation of students' educational use of Facebook". Paper presented to the Poke 1.0 - Facebook social research symposium, University of London, 15 November 2000.*

multiple accounts in Twitter or FB to differentiate personal and professional comments. But, if the personal element in social networking sites removed; the result is a fairly dry bland set of communications with professional updates and comments.

Revealing personal information will attract the attention of stalkers, sexual predators, identity thieves and scammers. The teenager and students will be the victims as they often open themselves up to find true love or friendships. Currently suicides caused by cyber bullying or internet harassment are widely spread. Now the people can't make their own decisions about what is shown to the world. It costs people thousands of dollars annually to repair their lives once they become victims.

A research shows that, girls are more likely as boys to be victimized and perpetrators of cyber bullying and that the most common method of cyber bullying is through instant messaging, followed by chat rooms, e-mails and messages posted on websites.

Social networking privacy issues are critical in today's world. Now it becomes a serious social issue. Hence copyright laws seem to have little bearing on the internet unless money is involved.

The scholars will not be enthusiastic to contribute on social networking tools, if the other participant in the group does not comment his/her blog or photographs on Flickr etc. Hence this will not give the intended outcome of collaborative work. At the same time some students may prefer individualistic learning rather than collaborative learning and they may not have the time to do collaborative work at same time that suits others. .At the end of a collaborative work there may be ownership issues about contributions in a shared space.

The students will comments their own fellow students whom they preferred. Selective commenting will not be useful in personal assessment and also learners may not trust their fellow students' comments or feedbacks and they may rather trust on the true comments from an expert such as a tutor or a lecturer. Also, it has been found that heavy internet use with grater impulsivity.

Challenges to the Educators

The learners in the digital generation expect their education to be relevant to the real world. Therefore, educators face the challenge of conducting lectures using conversational social software supported methods to motivate and empower the students.

Even though students from the net generation prefer a more participatory approach to education, the education system still may not have the resources (availability of computers, broadband) to cater their needs. Also some of the students may still prefer a 'broadcast approach' of teaching and may be unfamiliar with the social networking phenomenon. The lectures may find it critical to cater these diverse needs of the students.

Designing and assessing learning activities using social software is challenging. The number of comments on a blog post may not be an effective indicator of a student's contribution if the comments are not insightful enough. The academics face a difficult task to incorporate a

proper mechanism has to evaluate students' contribution in the digital environment.

The planning, launch and maintenance of a social software initiative can be involved high workload and it is very time consuming. Some educators may find it difficult to keep a track of everyone's progress if there is formal assessment along with using social software tools. When social software tools are employed, perceived role of the educator move from delivering education and knowledge to facilitator (i.e. more like a mentor). This perception might be in conflict with the traditional educators.

Universities and higher education institutes struggle to block students using social networking tools during lectures. And the educational potential of social networks is endless, but current pedagogical practices often fail to capture this potential. This will slow down the innovation of the students.

Challenges to the Organizations

There is a need for the predation staff and faculty for the new socially connected and

networked world. However, there is a scarcity of resources. The social networking tools used by educators are not within the institutions and then it may be a challenge of continuity of these services, its reliability and maintenance. The policy makers within an organization have to make necessary steps to avoid such loopholes.

Hitch, Richmond and Rochefort recognize the limited impact of social networks in formal education today. Much like higher education prepares learners to participate in society; it should also prepare staff and faculty for the new socially connected and networked world.

Social networks require a proper frame as they operate by the network effect. A policy has to be made regarding the usage of social software tools for both educators and students. Organizations should facilitate student interaction and to encourage learning dialogue. Institutions should remain cognizant of the context within which these tools are used.

Some social software Tools, like Skype or Second Life may require altering the firewall

mechanisms. It will prone to increase security risks of the institution's network systems.

Effective Applications

The educational potentials of social networks are "practically endless". It has enriched students' learning experiences in a variety of ways. The National School Boards Association reports that almost 60 percent of the students who use social networking talk about education topics online and more than 50 percent talk specifically about schoolwork.

As Ulbrich *et al*., (2011)[5] contend: 'Members of the net-generation use the web differently, they network differently, and they learn differently. When they start at university, traditional values on how to develop knowledge collide with their values. Many of the teaching techniques that have worked for decades do not work anymore because new students learn differently too. The net-generation is used to networking; its members work collaboratively, they execute several tasks

[5] *Ulbrich, F., Jahnke, I. and Mårtensson, P. 'Special Issue on knowledge development and the net generation', in International Journal of Socio technology and Knowledge Development, 2011.*

simultaneously, and they use the web to acquire knowledge.'

As Livingstone and Brake (2010)[6] states that "As long as schools remain reluctant to incorporate media education into teacher training and classroom curricula the children's knowledge will lag behind the industry's fast changing practices of embedded marketing the use of personal data user tracking and so forth, the most of which is opaque to young people as they navigate the options before them".

According to the empirical researches the educators have to emphasize the importance of social networks and benefits of social networking among students. This will motivate students to use SNS more productively and meaningfully as well. The educators have to instruct students about the academic usage of SN tools. It should be the look out of the educator trainers or instructors to give the student a perfect knowledge about the usage of SN tools.

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[6] *Livingstone, S. and Brake, D. R. (2010), 'On the Rapid Rise of Social Networking Sites: New Findings and Policy Implications'. Children & Society, 24: 75–83. doi: 10.1111/j.1099-0860.2009.00243.x*

As Voithofer (2007)[7] notes: instructing teacher education students on social networks encourages them to consider: (1) the technical and pedagogical characteristics of educational technology; (2) the social aspects of educational technology, and (3) how to think about emerging technologies in relation to teaching.

The institutes in the higher education have the responsibility of educating safe media usage as well as incorporating social networking into the classroom experience to encourage students for a better future. Networking with others should be done in a safer environment when implemented in the classroom. Careful supervision will prevent most of social treats attached to social networking.

Institutes can use education-related versions of social services that are much more secure and appropriate for classroom purposes. Yan (2008)[8] discusses some of these including, the blogging

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[7] *Voithofer, R. (2007). 'Web 2.0: What is it and how can it apply to teaching and teaching preparation?'. Presented at the American Educational Research Association Conference.*

[8] *Yan, J. (2008). Social Technology as a New Medium in the Classroom. New England Journal of Higher Education, 22(4), 27. Retrieved from ERIC database.*

platform (www.edublogs.org), social network (www.elgg.net), and online learning community (www.digication.com). Some social networks, such as English, baby! And LiveMocha, are explicitly education-focused and couple instructional content with an educational peer environment. Yan also contends that this new generation of Web 2.0 tools is easier to use by engaging, and forging more collaboration and communication in the classroom.

The Higher educational institutes have to justify its choice of SNS i.e. why they have chosen Facebook over Twitter or a group-based network site such as Ning etc. Those institutes have to be responsible for the activities with a chosen SNS and they have to offer ongoing technical support for the students. Institutes need to develop social networking policies for students.

Accordingly, the institutions have to provide necessary training and support for the educators to face the challenges of conversational social networking environment. In the meantime institutions also have to provide adequate resources and facilities as well to cater the needs of the learners. This will pave the way to motivate and empower the students to achieve the goal of

success in the respective fields or avenues in which they wish to proceed with.

Neat Chat, Study Group, Koofers, Booktag and Peerong social networking applications are also useful in adding value to the teaching and learning experience.

There are 20 social networking sites that are particularly popular among teachers. Those are TeachAde, The Apple, Classroom 2.0, NextGen Teachers, The English Companion, We the Teachers, TeacherLingo, Google Teacher Community, TeachersRecess, Applebatch, TeachersRecess, ClassScene, Education World, Tapped, Teacher Focus, ProTeacher Community, PBS Teachers Connect, Edublogs, Diigo, Twitter and Delicious.

These sites enable teachers to network with one another and discuss new ways of educating and learning. Further they provide an online blogging platform for educators. Teachers can start their own blogs or network with other teachers through forums and comment sections. And share lesson plans, videos, up-to-date news and other education-related resources.

The lecturers are responsible to develop a proper mechanism to assess the learning of the student's in the digital environment. Rather than simply being worried about the online threats, educators and parents need to educate students about safely using technology.