

Optimizing the Usage of ICT for Enhancing Quality in Teaching-Learning Assessment Processes: Case Study

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Abstract- Use of ICT can't automatically ensure quality. Sustaining and developing service quality is now a pre-requisite for higher educational institutions. There is growing evidence that applying ICT in education can accelerate and enhance learning on all the fronts. Interactivity, adjustability and accessibility have become the order of the day in the ICT supported situation. It also helps us in collecting, connecting, monitoring and analyzing data about learning and teaching in numerous ways that allow us to more precisely diagnose students' requirements and assess programs. To effectively apply ICT, educators need to undertake newer approaches. The motive of this paper is to identify the role that ICT can play to enhance the quality in learning, evaluating and teaching through improvements in perception,

I. INTRODUCTION

The quality in higher education is an intangible concept. Higher education is usually a combination of professional training and growing analytical skill, rational perception and a critical ability. Traditionally and from factual records, quality assurance (QA) organizations have had mainly two roles: the augmentation of the quality of the organizations and programs the answerability of the outcomes of learning and teaching^[1]. The augmentation function has been maneuvered primarily in systems of high reliability, while the answerability function has been created to prevent worst quality of organizations and programs, and hence to protect the stakeholders i.e. students, educators and society.

'Teaching excellence' is an argued over concept. There are many definitions of an 'excellent' teacher and these are placed within a shifting political, social and economic context^[2]. Evaluating the quality of teaching has been a prolonged issue for institutions. Excellence in teaching is figured out by factors such as the nature of individual lecturers, the organization of presentations, the interaction with students as people and how well .The

inculcation, culture, convergence and data. ICTs have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate college experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping colleges change. It talks about a unified model which can enable teachers to access, extend, transform and share ideas and information in multi-modal communication styles and format and anticipate a new learning culture.

Keywords: ICT, Perception, Convergence

information given meets the learning goals of the course . Excellence is defined in terms of student satisfaction and also the conduct of students in examination. Excellence in teaching may be seen as the presentation of information which increases the students' opportunities to gain the highest marks from the course.

The ICT (Information and Communication Technology) includes all possible technical methods that are used for handling and facilitating information and communication that includes personal computers, communication lines, network hardware and all the required software^[3]. In other words, ICT is composed of electronic media, telephony, information technology and all kinds of process, all management and control functions and transfer of audio and video signals based on network technologies^[2]. Not only expertise in ICT skills, but also utilizing ICT to improve learning and teaching is of utmost importance for teachers in performing their role of creators of didactic environments.

II. PARADIGM SHIFT

Education all over the globe is undergoing crucial paradigm alteration in educational practices of teaching and learning under the umbrella of ICT enabled learning

environment. Whereas learning via facts, drill and applications, rules and methods was more robust in previous times, learning through projects and difficulties, query and architecture, finding and creation, inventiveness and variety, steps and consideration is possibly more adjustable for the current era. The prime indicator of this learning shift is from teacher focus to learner centered paradigm.

In the course of 30 years, the alteration in educational environment has been remarkable. There has been substantial change of model, well defined, responsibility of the learner and technology from conventional direction to virtual learning surrounding as illustrated under:

CHANGES IN TEACHING-LEARNING ENVIRONMENT			
MODEL	FOCUS	ROLE OF LEARNER	TECHNOLOGY
Traditional	Teachers	Passive	Chalk & talk
Information	Learners	Active	Personal computer
Knowledge	Group	Adaptive	Pc+ network

Switching the focus from teaching to learning can generate additional interactive and committed learning atmosphere for teachers and learners. This new atmosphere also requires alterations in parts of both teachers and learners. The role of the teachers will shift from knowledge transmitter to that of facilitator, knowledge guide and sometime as co-learner^[4]. The new role of teachers wants a new method of reasoning and

recognizing of the new vision of learning tasks. Learners will have more responsibilities of their own learning as they strive for, search, synthesize, and exchanging their knowledge with others. ICT gives useful tools to carry the shift from teacher focused to learner focused paradigm and new responsibilities of teacher, learner, curricula and new media. The important changes have been illustrated in a tabular form under:

From	To
Transmitter of Knowledge	Guide & Facilitator of Knowledge
Controller of Learning	Creator of Learning Environment
Always Expert	Collaborator & Co-learner
Learning to use ICT	Using ICT to Enhance Learning
Deductive / Expository	Interactive/Experiential/Exploratory

All these changes happening in gaining an understanding and teaching require a new learning to adequately utilize the ability of ICT to enhance acquisition. ICT has the possible potential to modify the system of education: where, when, how and the method encyclopaedism occurs. It will help in unfolding of accountable comprehension focusing on lifelong learning with meaningful and enjoyable learning experience.

III. PROPOSED METHOD

For an effective and efficient education system, there are some requirements like maintenance and retrieval of records, uploading student and faculty details, achievements, upload study materials, create announcements, create deadlines for assignment submissions etc. which can be carried out effectually by the use of ICT, are being summarized below:

Requisites	Role Of ICT / Tools
Maintain Student Database	Pi 360 We can access all the student information like address, phone no, mail ids etc. at the click of a mouse. Students Marks of X, XII, Graduation and PG everything is readily available
Manage Attendance Record	Mier Academia Erp Utility: A comprehensive system that facilitates information management and automation of campus functions efficient

	<p>Features :</p> <ul style="list-style-type: none"> A cutting-edge campus management system for the 21st century institute A comprehensive system that facilitates information management and automation of campus functions Efficient Easy-to-use Affordable Transparent college administration Simple & Effective tools
Upload Marks	Mier Academia Erp
Uploading Course Material	<p>Google Classroom</p> <p>Announcements</p> <p>Assignments</p> <p>Questions, e-books, ppts, pdfs and other study material.</p>
View Student / Faculty Profile	<p>Pi 360</p> <p>It is an In-House Performance Analytical Tool which keeps one abreast with the achievements of Faculty / Students in the field of Higher Education and Research. It also enables to constantly monitor individual performance. It inspires to perform better by building up a competitive spirit. The framework automatically standardizes performance of employees and departments both internally and externally for extended progress.</p>
View Academic and Extra-Curricular Achievements	<p>Pi 360</p> <p>Students are automatically assigned badges according to their performance in Academic and Extra-Curricular Activities and shown on their profile graphically as well as in tabular form.</p>

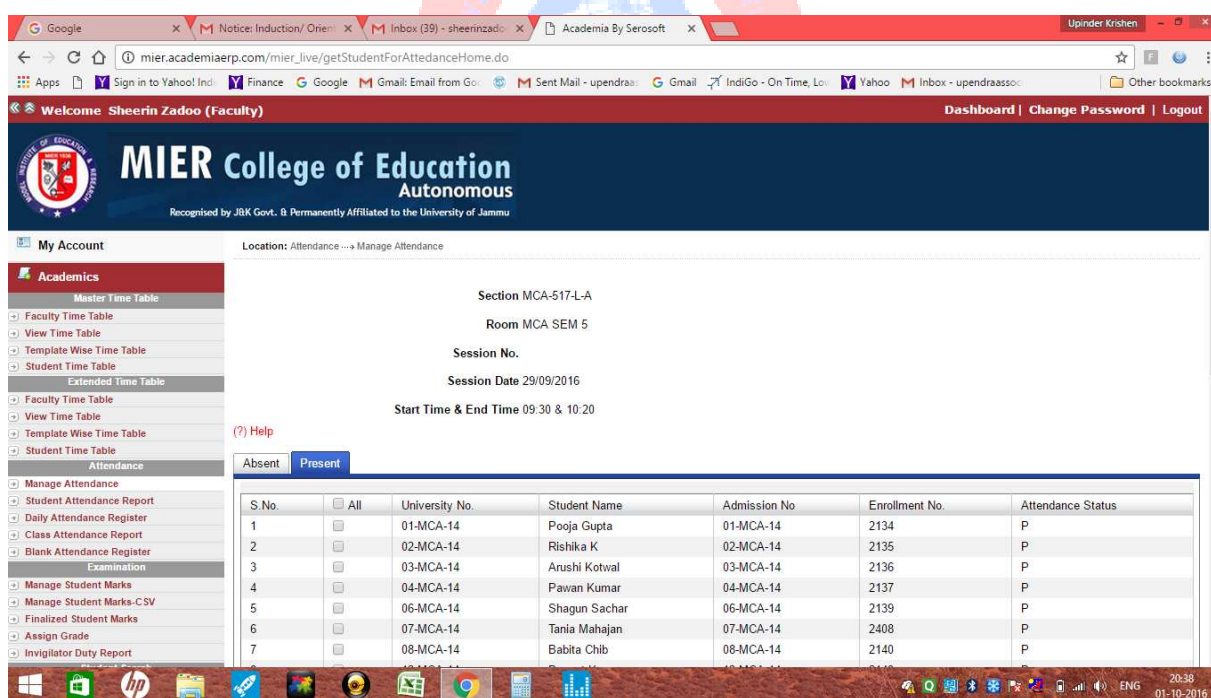


Figure 1: Mier Academia Erp

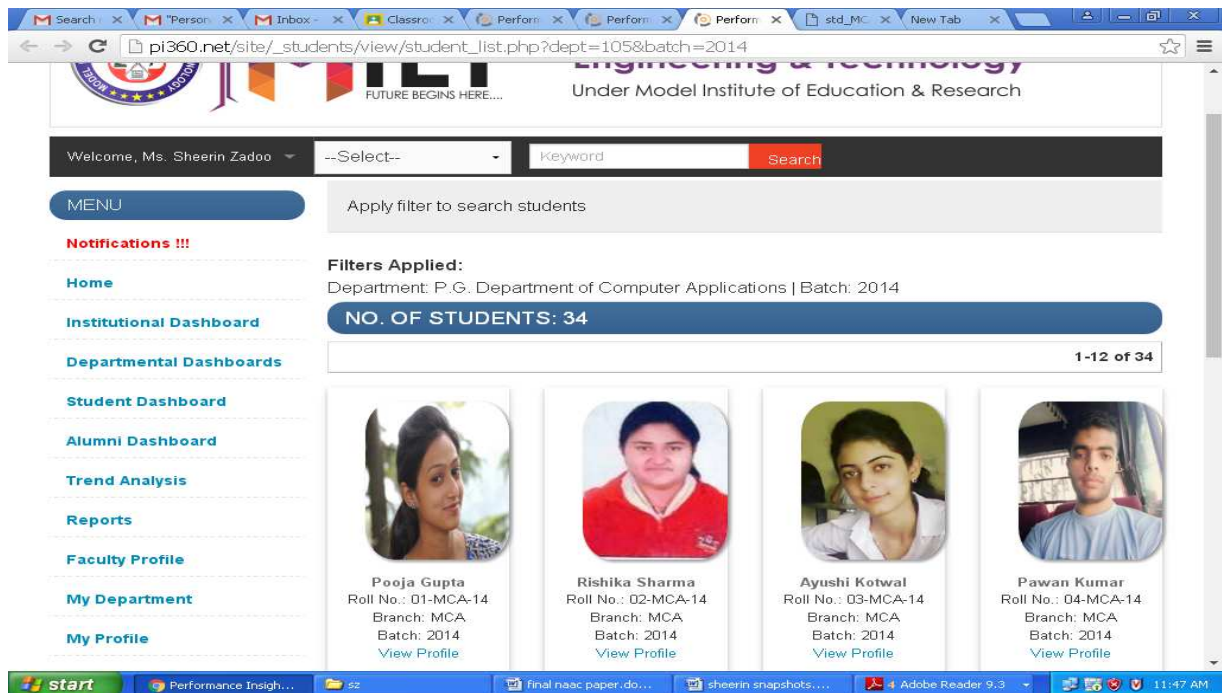


Figure 2: Pi 360- Student Dashboard

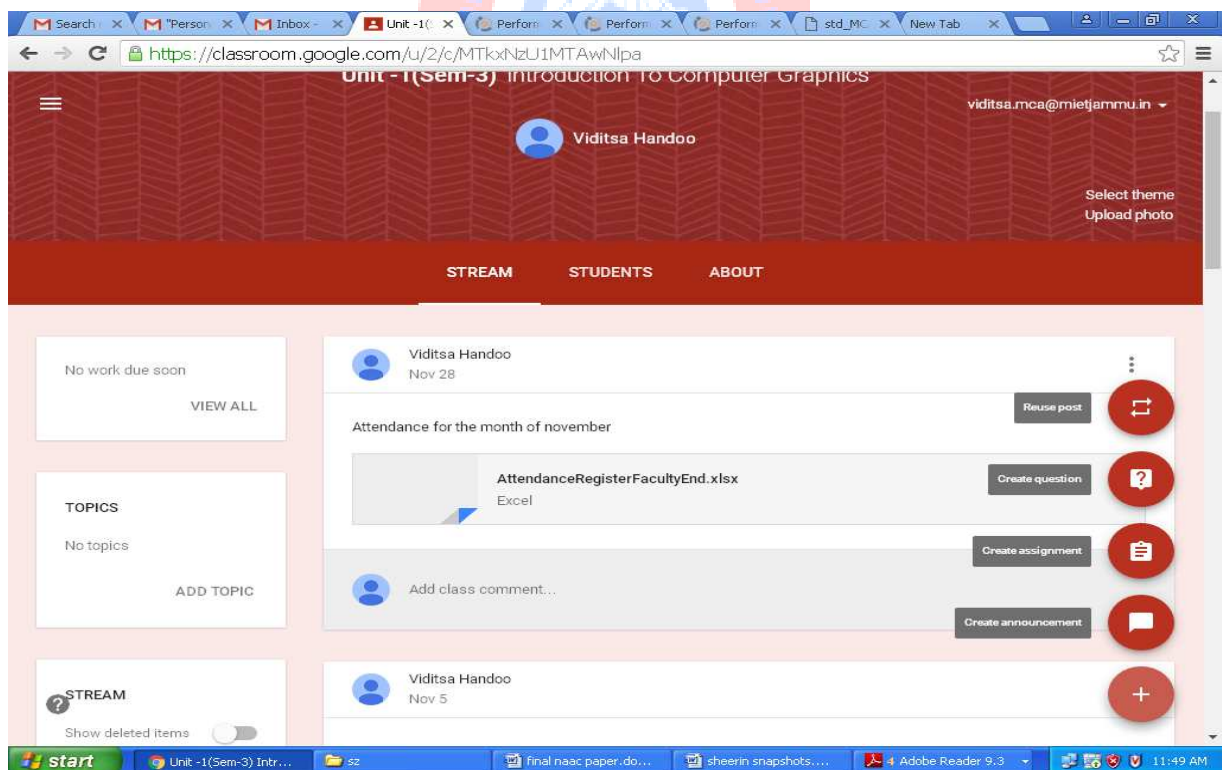


Figure 3 : Google Classroom

Presently, there are no tools available for extracting reports out of the data uploaded and many more specialized automated tools can be integrated to our software. Such requisites which need to be automated are mentioned below:

Requisites	Role Of ICT / Tools
Shortage of Attendance	Automated generation of list of students having short attendance and their percentage of shortage in each subject.
Identifying Low and High Achievers	Automated generation of list of students having least and highest percentage of marks overall

IV. CONCLUSION

During the past few years, the world has witnessed a significant growth in communication technology, information technology and computer network. Convergence of telecommunication with computers and development of new broadband communication services have created various possibilities to use a huge variety of new technology tools for learning and teaching system. The integration of computers and communications offers unprecedented opportunities to the education systems with its capacity to enhance integrate and interact with each other over a wide geographic range in a meaningful way to achieve the learning objectives. The growth of these communication and computer systems, the power and diversity of information transfer, their ease of use allow teachers and students to have access to a world beyond the classroom^[5]. It has the potential to transform the nature and process of the learning environment and anticipate a new learning culture. Interactivity, adjustability and accessibility have become the order of the day in the ICT supported situation. ICT opens up convenience for learning because it enables teachers to access, extend, transform and share ideas and information in multi-modal communication styles and format. It helps the learner to share learning resources and spaces, promote learner centered and synergetic learning principles and enhance critical thinking, creative thinking and problem solving skills. Not only mastering ICT skills, but also utilizing ICT to improve teaching and learning is of utmost importance for teachers in performing their role.

The Department is well equipped with latest ICT. Daily errands like maintaining student database, attendance record, uploading of marks, news and study materials etc. are efficiently carried out through various software like Mier Academia Erp, Google Classroom, Pi 360 etc. But the efficiency is reduced because of the non-existence of single integrated software^[6]. So, in this paper a new technique is proposed to introduce single software which can automate all the works of a faculty and hereby maximize the student faculty interaction online further benefitting the students.

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REFERENCES

- [1] Safeguarding Quality of Higher Education in the Netherlands: Closing the Gap between Policy and Research by Joop Hartog; ISSN 2364-1428
- [2] Information and Communications Technology (ICT); ICT4SD_Ch_2--ICT.pdf
- [3] Emerging Trends in ICT for Education & Training; Dr. Shyamal Majumdar
- [4] <http://www.emeraldinsight.com/doi/full/10.1108/QAE-06-2014-0028>
- [5] The Motivational Effect of ICT on Pupils Don Passey, Colin Rogers, Joan Machell, Gilly McHugh and Dave Allaway; Department of Educational Research Lancaster University
- [6] Using ICT for Quality in Teaching- Learning Evaluation Processes; By Ms Jillian Dellit, Director, Learning Federation Secretariat Australian Education Systems Officials Committee Adelaide, South Australia