

**Enhancing Use and Development of Electronic Information
Resources: a Tutorial and E-Learning Management System.**

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Introduction

This paper is based on experiences from the Post Graduate Students from the Department of Education, Administration Planning and Curriculum Development, School of Education, Kenyatta University. It has been a collaborative effort between the lecturers and ICT librarian. Recently this department has had a high growth in enrollment of post graduate students. Due to their high numbers there has been unavoidable strain in the learning resources. This inevitably calls for innovative solutions to support student learning needs. This paper describes our exploration in providing learner support through the use of ICT. Most of these students were characterized as having limited skills ICT application. However we facilitated acquisition and distribution of electronic information resources taking into accounts the learner's characteristics as adults returning to study.

The lecturers structured the course outline which required the learner to make use of electronic resources through prescribed learning activities and assignments for continuous assessment. As a result the students were able to develop tutorial presentations for discussion in class and share them among themselves in electronic format. Considering that these students had wealth of experience in education, having worked for many years as teachers and in related professions, most of the tutorial papers had unique information that was appropriate to be shared out. Therefore these papers were organized and made accessible to all the students in electronic format.

Towards this end the authors have considered both activities: identification of electronic learning resources and organizing the tutorial papers into a unified system the Tutorial and E-Learning Management System (TELMs) which is based on the local settings.

ICT Challenge in Learning

As ICT becomes available and accessible so are the challenges and opportunities towards its application in learning. Lecturers, students and librarians are faced with a bewildering array of claims about the impact of ICT and the ways in which it can and should be deployed to our advantage or disadvantage. (Oh, Cheol H, 2003).

Often this may lead to a crisis where no one is sure of the ICT system to use and whenever it is used it remains under-utilized or never used at all. It therefore becomes necessary to understand systems well and choose carefully what best suits our circumstances. One possible way is to engage in research so as to identify emerging needs and match them with appropriate technologies given the prevailing conditions and circumstances. The home-grown system we evolved the Tutorial and E-Learning Management System (TELM) was largely CD-ROM based to match characteristics and learning environment.

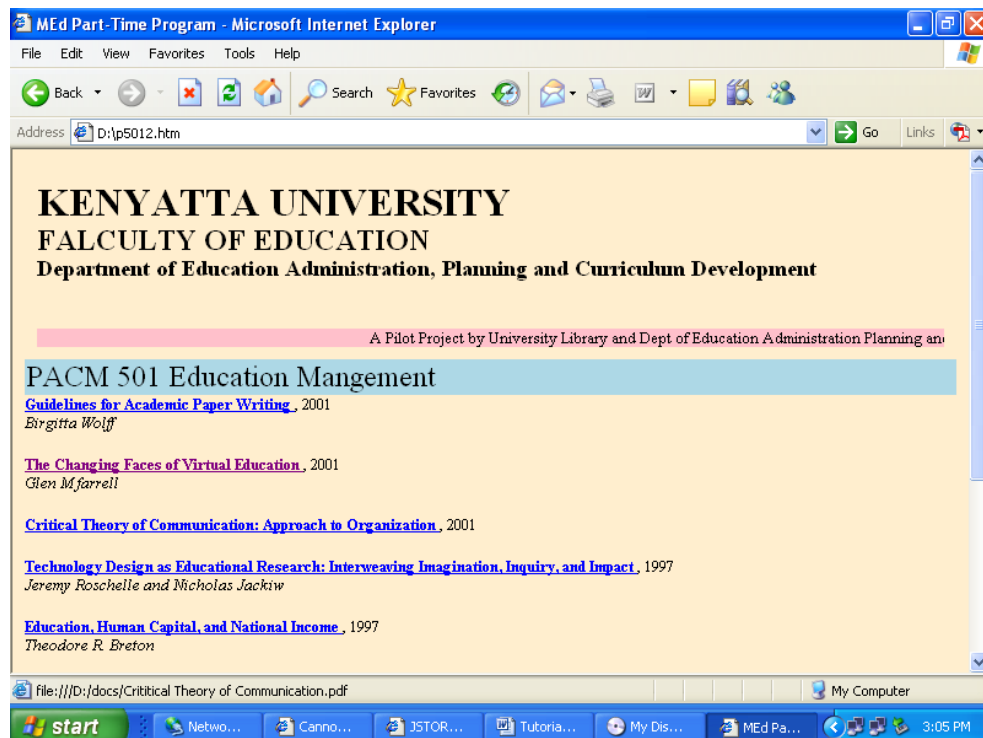
Rationale

The rationales for developing TELM were:

- To provide students with a facility to access to the course outline
- To a list of selected resources for the course in Education Administration, Planning and Economics of Education.
- To provide electronic resources available for the course and have a convenient and reliable access to course content.
- Promote electronic publication of tutorial papers by the students in the above units and share among them.
- Evolve a learning system that relates to unique needs of the students and prevailing technologies.
- Correspond with the Kenyatta University policy of enhancing e-learning culture.

Tutorial and E-Learning Management System (TELMs)

TELM System facilitate access by the students to unit details, course work, references and selected fulltext, including group tutorial papers.



Interface of Electronic Course Materials 1

The system enable the course facilitator to define unit details, course work and attach fulltext documents and define hyperlinks to online resources. In addition the facilitator will approve group tutorial papers presented in the class for uploading into the system.

TELM System consists of various modules which include:

- Unit Registration and course work details
- Attaching Fulltext, tutorial papers and reference/ links.
- Facilitator and students registration
- CD-ROM Product generation

The **TELM** System uses **MySQL** database to store all relevant records and can be installed on any computer running on windows operating system. The TELM interface manages all the activities needed to mount a course and produce an independent learning package which the student can carry along in a CD or a flash disk to use at home. The resulting package is accessible using common browsers like Windows Explorer or Firefox and Adobe reader

Both the design and technology used has been carefully chosen in consideration to the following:

- Availability and access to ICT infrastructure within and beyond Kenyatta University.
- Skills available and readiness among the students.
- Time and costs for inducting on the system.

The Benefits

The benefits of the TELM system can be classified as per the process players. Thus:-

As Lecture/Facilitator

- Provides a forum to manage and deliver teaching and learning materials with greater consistency irrespective of the class size.
- It encourages students, lecturers to publish group reviewed tutorial papers for sharing.

As a Student

- Provides a fairly complete learning and revision system.
- Presents opportunity for production and sharing electronic resources.

As a Librarian

- Promote use of electronic information resources.

CONCLUSION

TELM system idea has been born out of the experiences and collaboration between the course facilitators and the ICT Librarian towards encouraging use of e-resources among students. The CD-ROM package gives the students the choices to access materials at any time and at any place where there is a computer (at home, at school, library and even cyber cafes!)

The learner generated documents can be a trail-blazer to locally based e-resources depository that be used for learning as well as a basis for partnership with global and regional information providers. The TELM system can further be developed into a full functioning e-learning system that provide option for web based access as well as the CD version.

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