SUPPORTING TEACHERS AND LEARNERS ONLINE IN AN OPEN LEARNING ENVIRONMENT: A WEB-BASED LIBRARY PORTAL FOR OPEN UNIVERSITY OF SRI LANKA

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Abstract

The paper proposes a model which focuses on a strategy to implement successful open learning support system with a productive collaboration with the faculty. The learner is supported for his open learning correspondence through value added services and information products introduced through the virtual library portal. The Internet enabled library portal is a focused interactive learning space where information flow is targeted to the learning contacts and assignments at hand of the student. The portal is one stop shop model where the user is provided with the learning activity support and the information access facility. Information access facility, though conventional, is converted into flexible mode using modern learning and communication software. The learning activity support is developed into a value added service where the user is supported through faculty-library collaborative development of information products and services where most of the relevant products are available in the digitized environment for the studentship of both distance and on campus. Ultimate objective of the portal strategy is to provide the distance user with learning and literary support through Internet technology.

Keywords: Library Portal Model/ Distance Learning Support/ Value Added Library Services/ Remote Learning/ E-Learning Support

1. Introduction

The ICTs turned out to be continuously fluid and had become challenge for the information scientists as a ready user of the technology. Importance of information technology and demand for the same had marked different market behaviour. More the availability of ICTs more the usage and in case of freely downloadable sources and open source software, which have higher demand than sold in the market, the situation is especially true. Availability of software in open sources had influenced the information scenario considerably, as the flexibility of the electronic information and its management through software system had made the information easily accessible, unbundled and repackaged to suit the explicit needs of the user.

As Malhan (2003) indicates, electronic information environment offers better means for exchange of information and users' satisfaction rate is much higher than in the conventional setup even though the user is miles away. The versatile nature of modern ICTs had influenced the information systems constructively and the learning systems as well. The user (researcher) who stays at the end of the documentation line (Loosjes's model of Polarity of Documentation, 1973) shows willingness to access information through electronic means than in conventional modes. It should be noted that not only the young learners who shows an enthusiasm in learning using ICTs, as accepted in common, the adult learner also shows promising tendency towards usage of information technology in distance learning. This trend is favourable to both course provider and information provider. The former in better position to use more e-learning related modes and the latter can provide more user-centered products and services through modern technology.

The library of the main university consisted of 84000 volumes, 167 periodical titles, course materials, bound question papers, around 2200 audio visual materials, about 200 CD databases and e-journal access through INASP/PERI programme and UGC library consortia. The library already embarked on digitization of question papers, course materials, Open University publications and other authorized publications in support of learning. The library also has plans to purchase e-books from 2007 budgets. Nevertheless the resource collections at the regional centers are very low and not even meeting minimum information requirements of the OUSL students at regional level.

2.   Present Teaching & Learning Situation at OUSL

The Open University of Sri Lanka (OUSL) is the only government owned single mode, open and distance learning (ODL) body in Sri Lanka, which comes under the University Grants Commission as other conventional universities. The main campus is situated in Colombo in the Western Province and the university has 4 regional centers and 18 study centers scattered around the country. The university has four faculties i.e. Humanities and Social Sciences, Education, Natural Sciences and Engineering. In addition there are teaching and learning support services i.e. Education technology Division, OUSL Library, Operations Division, Printing Department and Information Technology Department. Number of courses offered by the university is 47 study programmes and 8 support courses. Number of academic staff of the OUSL counts around 844 and number of registered students as at April 2006 is 24373 (University hand Book 2005; Institutional review Report, 2006). The faculties hold scheduled number of day schools, practicals and laboratory sessions per module. It is observed that, there are learning tasks and assignments that are expected to be completed within set deadlines, by the students in this system due to the pre fixed schedule of assessment dates and examinations. The students need to earn specified number of credits to obtain a degree and to claim for merits and classes for the degree.

Even though the main idea of establishing the OUSL is to cater the concept, Life Long Learning by promoting education among adult learners, the trend of student registration

established the fact that there are more Advanced Level qualified young students registered than the adult learners. It was also seen that there is a considerable number of students representing the working population among the registered students. Though the student population scattered island wide, it was seen that they make a chance to come to the main university in Colombo due to many reasons like to use computer launches, using the library, communicate with colleagues etc. Hence the main university entertains considerable number of on campus students than normally expected as an ODL university. The situation has burdened most of the amenities and facilities in the university including the library and faculty spaces. The students who visit the main campus are from distant provinces as well as suburbs of the Western province. Nevertheless the remote students are scheduled to be attended for the day schools and practicals and submit assignments and projects at the respective regional centers.

It was observed that if the university had provided some solution for the remote students to access the library and communicate with the university authorities and teachers, they would not bother to visit the university very often as they do at present. Instead they would prefer to stay at their ends and communicate with the main university through remote logging.

According to the facts discussed in the student representative meetings, the students from the distant rural remote areas suffers a lot to come to the main city, Colombo due to the irregularities in the transport, financial difficulties and ethnic disturbances in northern areas of the island etc. Some working people encounter difficulties in obtaining leave from their organizations to attend some praticals and examinations. The regional centers are established to address these issues which were already expected by the ODL system designers but unfortunately the regional centers and study centers of the OUSL system are not yet competent at present to cater the students registered in the remote areas. The regional centre libraries are also not in a position to accommodate all the learning requests posed by the students. There fore distributed information dissemination solution is extremely necessary to unburden the information problems of the ODL students.

The academics, also keep busy within the prefixed schedules and timetables, shouldering the burden of some of the faculty staff who are on study leave. Their timetables are crowded with lectures, tutorial classes, demonstrations, practical etc. during the weekends and during the weekdays they are to engage in preparing lesson plans, writing course and study materials, preparation laboratory projects, holding examinations etc. There are more than 400 courses offered by the university at graduate and postgraduate level.

Within this learning sphere, it is seen that both students and academic staff are burdened with academic activities and are spending considerable time on information seeking to accomplish teaching and learning tasks. Unlike in conventional learning situations, information seeking for the learning purposes, ODL model cannot be performed in a leisurely manner, as all the learning contracts are to be performed

within a limited time frame. Both teachers and students face difficulties in finding correct and relevant information blocks within the limited time fame.

The lecturers, educational assistants, instructors and demonstrators of the university not only employed at the main campus but also attached to the regional and study centers. They need to refer or access the library at varied occasions in the course material writing and in teaching process. They face difficulty in accessing the library when they work especially in remote locations. The students in remote areas also face the same difficulties in accessing the library for their numerous learning activities.

It is understood that there should be some solution or strategy to overcome the barriers existing to the information access observed in this learning system. The materials and resources collected in the main library are necessary to be made available to the users scattered island wide in whatever the possible platform (bibliographic, abstracted or packaged and full text). A dynamic solution for information utilization for the T &L purposes is more invited from the faculty than the students, as they embarked on e-learning system recently, using Moodle e-learning software. The students of course has no clearcut vision or understanding about what difference that would make if strategic information channel is planned for the T & L purposes.

One of such strategies some of the universities used in recent past in faculty – library collaborative approach for information utilization for T&L purposes. According to Yi Jia (Yi Jia, 2005), collaborative learning provides a variety of educational advantages over more traditional instructional models. There are many benefits that can be gained through collaborative learning such as; building self esteem of students, enhancing the satisfaction level with learning experience, Upgrade knowledge level of weaker students, provides less skilled students more opportunities for learning, promotes learning goals rather than performance goals (Yi Jia, 2005). The model that is in the process of development at OUSL hope to integrate with the open source software (Moodle) for learning introduced to the faculty.

Moodle is an open source e-learning platform and also a course management system (CMS) which supports the learner through a virtual learning environment (VLE). It has very large user base in 158 countries with successful usage. Moodle enables educators to create online course with opportunities for rich interaction with the learners ensuring learner-centered teaching mode. Its open source license and modular design means that many people can develop additional functionality and development is undertaken by a globally diffuse network of commercial and non-commercial users, spearheaded by the Moodle company base in Western Australia. Moodel has many features expected from an e-learning platform including forums,Content managing (resources),Quizzes with different kinds of questions, Blogs,Wikis, Database activities, Surveys, Chat , Glossaries , Peer assessment, Multi-language support (over 60 languages are supported for the interface and the Sinhala language translation for the interface is in progress). Moodle is modular in construction and can readily be extended by creating plugins for specific new functionality. (http://moodle.org, 2006) Moodle features can be used to support the faculty-libray collaboration enhancing the scope of e-learning facility.

At present the OUSL library is planning to fix in to the virtual learning environment planned by the university. The OUSL library embarked on developing collaborative learning support materials with the consultation of the faculty. According to many studies (Fang, 2005; Suresh Kumar,1996; Radar, 1998; Adikata,2006) In many foreign universities, the collaborative efforts are under way to reduce the 'learning time waste' from the dedicated time of the learner.

The OUSL library had started feeding the faculty with necessary information as a curriculum support. The learning support part is still to be strengthened. The existing scenario of the OUSL library and the faculty observed is given in Fig. 1.
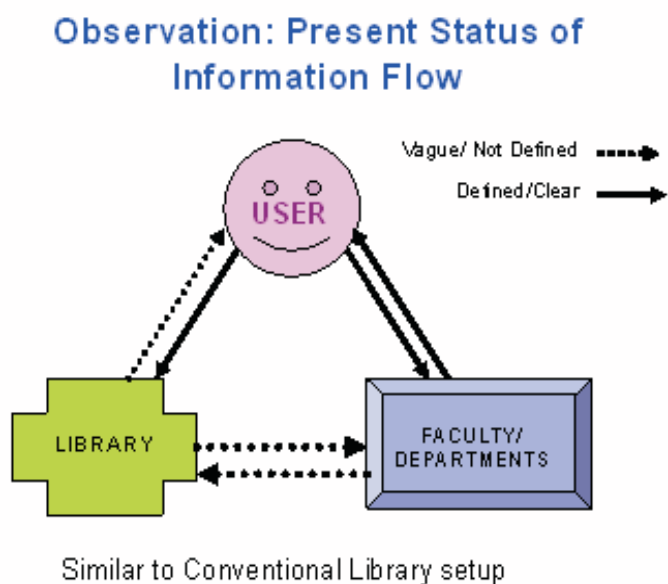

Fig. 1: Faculty - Library Relationship

As indicated in Fig.1, the two entities (faculty & library) maintain a conventional relationship, but not defined clearly in terms of learning targets. The academics come into the library or consult the library to fulfill their numerous academic information needs as in the conventional library. But the teachers hardly request the library to prepare reading lists, literature surveys, prepare supporting materials for the study programmes/ day schools etc., but better than the conventional environment in using the recommended text. Still the teachers do not optimally exploit the resources available in the library.

Nevertheless, the learner has clearly defined, steady, two-way relationship with the faculty as the learning line in any academic body is clearly defined. Learner in this environment is directed to the library as a formality. His access to the library is required

by the numerous learning tasks assigned. But it was seen that this consultation does not support the resource-based learning (RBL). As the faculty do not consult the library to prepare study support system, the library also caters to the students in a conventional manner, such as "if they come, we serve" method (passive information supply).

The model

As observed, the OUSL library, is engaged in conventional 'passive information giving' rather than active information provision. With the need to develop a dynamic solution to propagate faculty library cooperative culture, the OUSL library had embarked on a 'Virtual Library Portal' project to go in line with the newly launched Learning Management System (Moodle).

The model presented in the paper adopts basic concept of Resource Based learning model, but tailored to the needs of the ODL users and the faculty. The model is being developed by the OUSL library and for the purpose that it was decided to convert the existing library web page into a dynamic Open Library Web Portal. The portal model will be One Stop Learning-support Arcade, which enable the student and staff user to request many supportive information products and services for their T&L activities.

The model consists of learning support and information access support in dynamic nature and will be act as an information provider with real time 'ask a librarian' space during some specified hours, and eventually will be developed into a 24 hour service.
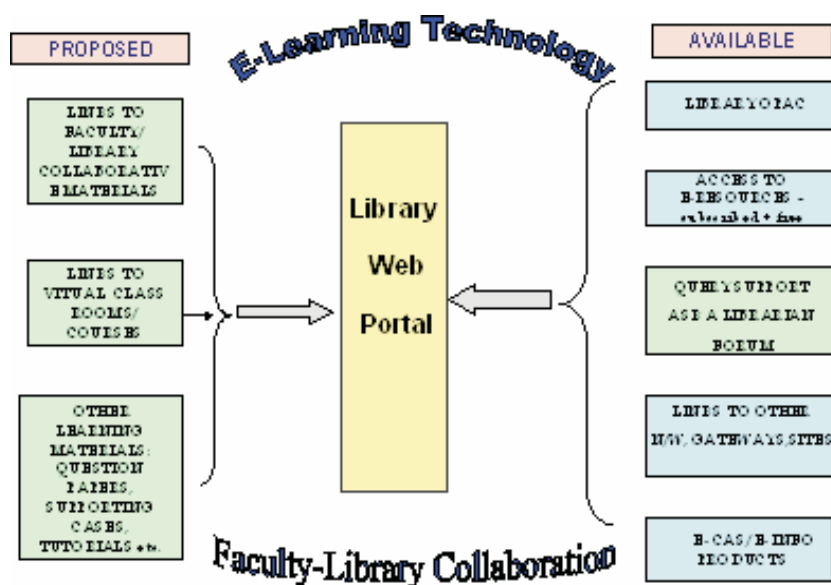

Fig.2 : Value-Added functions planned – Virtual Library Portal

The model under construction can be accessed at http://www.ou.ac.lk (Home page of OUSL) and model screen print is given in Fig.2 and the library services offered through the web site is given in Fig.4.

The proposed functionality is completely the opposite of the existing library system as indicated in Fig.1, where the faculty in its teaching lines feeds learner and the library engaged in conventional passive information giving rather than active involvement in the learning contracts. It is convenient to discuss in the paper, the functions in relation with the diagrammed representation of the functionality model proposed which is given in Fig.4. Some of the functions and features indicated in the diagram are already started and can be viewed at the OUSL Virtual Library page as given Fig. 5. What the new library portal presents is a functionality to assist T & L in a modern e-classroom/ e-learning environment. The collaborative effort utilizes content management from teachers' side and information management from librarian's side through a flexible Content Management System.
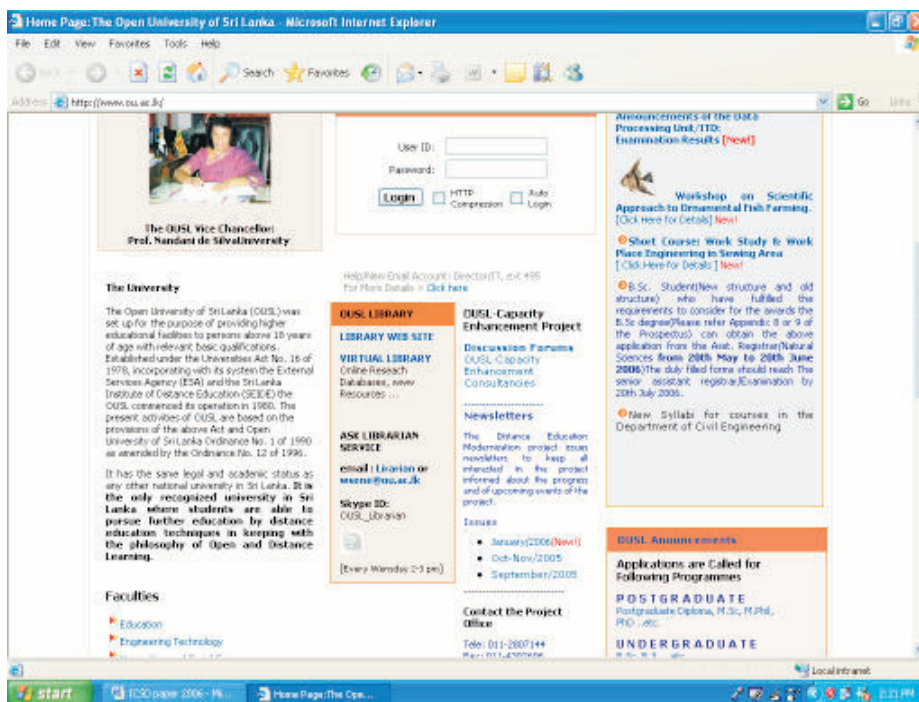

Fig.3 : Open University Main page with a link to OUSL Library Page

Fig. 4 : Main services offered through the library web page.

3.1   Conventional Information Support in Modern Channels

The right side of the functionality model indicates functions that are normally available in a library website such as; Library OPAC, Access to various e-databases, digitized resources etc., links to other subject networks and gateways, e-current awareness products, repackaged information and Ask-the librarian service. These functions are known to any information professional though, the delivery mode used is ICT. The OUSL library operates on fully automated library system with web enabled OPAC. It also provides access to e- journals and e-databases, Subject Gateways (e.g. Legal Gate), Local and Foreign Information Networks, Current awareness products etc. through library web site. These facilities are planned to be developed further in line with course requirements time to time, such as subject gateways, Current awareness products etc. These resources which are available online can be used for many e-learning activities, e-classrooms to obtain 'immediately' or as a 'supporting window', the required references, required text blocks, diagrammes, maps, models etc. available through the library site. Moreover Moodle features like forums, Content managing (resources), Wikis, Database activities, Surveys, Chat, Glossaries etc. also can be supported throguh library portal links. Academic Bloggers also may use the Library Portal in building up their experiential Blogs by cross refering to the web links extracted from the library access.

The special service "Ask-the-Librarian Service" is designed using two modes. One is the normal librarian's email service and the other option provided is the online contact through Skype 2.5 communication software adding value to the service (http://www.skype.com,2006). The software allows not only single the line communication, but supports chatting, and shared discussions with camera view of the speaker. The academics and the students also are permitted to logged in into a chat using Skype ID assigned to the OUSL learner, while engaged in learning or teaching session.

The left side indicates value added services, which are planned to support e-classrooms, tutorials and e-discussion forums. Web links established to the collaborative materials such as, literature surveys, reading/reference lists, further readings, full text collections, tailor-made information packages, engineering diagrammes, scientific online demonstrations, related case studies for the management and social sciences, related court cases etc. are planned to support virtual class rooms, tutorial sessions and virtual moot courts (Online courts) for the Law students.

The OUSL library also is in the process of digitizing past question papers which is in very high demand within ODL students and part of which already available on the virtual library page.

The collaboration of CMS or VLE and virtual library services thus would create online learning space, online reference space and online brainstorming space within the OUSL learning community. The library web portal is being planned to support virtually and interactively using the resource based products and services, thus paves the way to propagate e-resource based learning model. These services treated as conventional though it has a web access, as the same services offered in most traditional libraries manually or through other mediums.

3.2 User-centered Learning Support

The sample Learning Channel established with four faculties is given in Fig. 5. This "Learning Line" was supposed to be started initially with the Faculty of Social Sciences. The library hopes to provide initially;

- Literature surveys

- Reading lists

- Subject Gateways (Specialised)

- Question paper Online

- Course materials Online etc.

These services will be activated upon the collaborative practices of the respective faculties and the library. The facility is supposed to be student-centered approach to
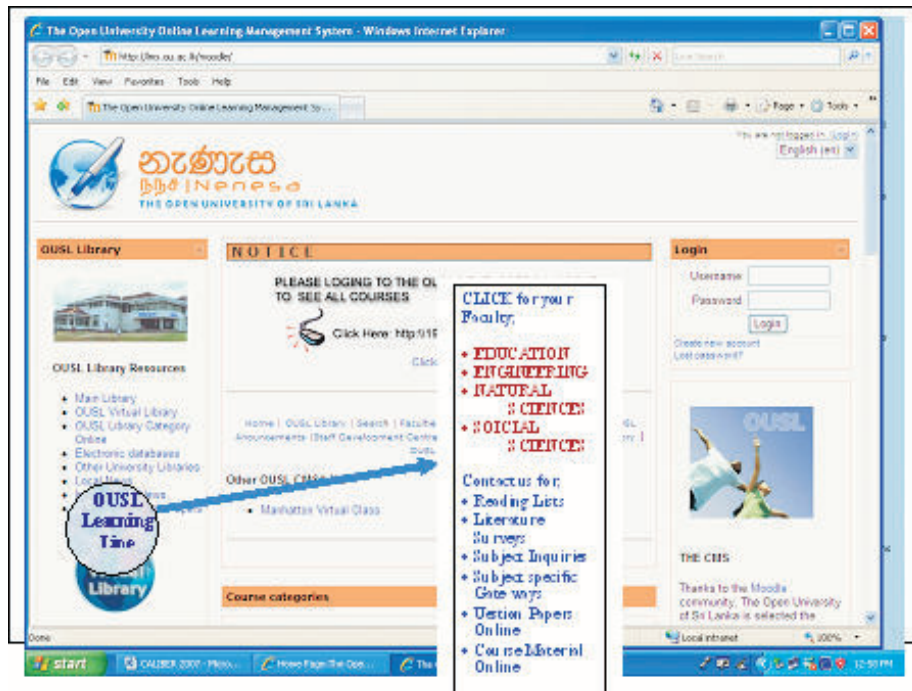
Fig. 5 : Learning Line in first stages

support the learning activities of the remote student, whether they are at home, at a computer launch or at a practical session. This service also facilitate the teacher any time during their teaching sessions or at the times of curriculum design and lesson planning, providing online connectivity through their desktops.

The Learning Line in the portal model integrates;

- Teaching faculty – lecturers, educational instructors, demonstrators, academic counselors etc.
- Library / Information Scientists – Assistant Librarians, Subject librarians, Library/Information Assistants
- Learners – On-campus and remote learners

The conceptual model of the Learning line of the OUSl library portal is given in Fig.5.
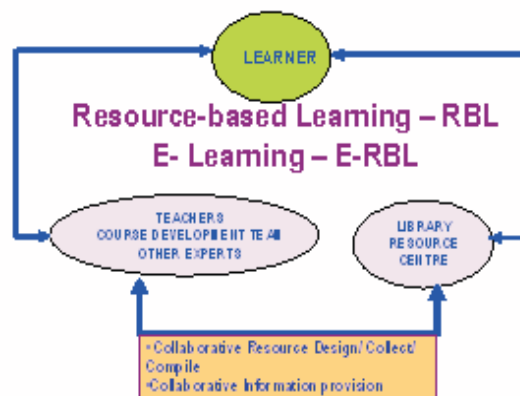
Fig. 6 : Conceptual frame for the Integrated Library Model

As the Fig.4 indicates teachers and library professionals will be functioning collaboratively to achieve learning goals of the Learner. The learner is the target entity in the model and the functionality of the faculty, library and the learner evolves around the resource-based learning environment.

4.   Summary

The OUSL virtual library space automatically integrates the main components of the Resource-based Learning system, and the three components are;

■   Information materials (Reference level, abstracted level and full text)

■   Compiled, structured information products (Current Awareness products, Information repackages relating to courses, Curriculum based reference lists, compilations etc.)

■   Experience-based resources compiled (Blogging spaces and research works/ projects linked)

Under the Resource-based learning students become active learners, teachers and librarians become motivators and facilitators in the learning process. The process involves active participation with learning using multiple resources (books, journals, multi-media, Web, community etc.) where students are motivated to learn about a topic by trying to find information on it, as many ways and places as possible. Resource-based learning is the achievement of both subject and information literacy objectives through exposure to and practice with diverse resources.

The main essential features of the portal model proposed are its flexibility in terms of adaptability to different learning styles and subject areas, and its promotion of student autonomy or learner-centeredness. It is expected that staff and students would develop information usage skills in the virtual environment, relating to their curriculum and learning targets/contracts through formal and informal practices. The collaborative library space is especially expected by the students to get familiarized with to go online with the learning activities. The students are hoped to become dynamic learners obtaining an experience of problem solving as they piece together information strands to formulate meaningful knowledge about a learning issue at hand in a virtual environment.

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