Integration of ICT Technologies to Enhance the Quality in Faculties of Humanities and Social Sciences in Sri Lankan Universities

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"*I never teach pupils, I only create conditions in which they can learn by themselves"*

Albert Einstein

This paper discusses the usage of ICT and related technologies in educational activities among students in the Faculties of Humanities and Social Sciences in Sri Lankan universities. It proposes how to use blended learning[1] modes to enhance the quality of learning of educational activities. Further, this study discusses the skills required for the 21st century.

The Student to computer ratio, other relevant facilities including connectivity, availability and usage of related devices, are the factors that influence the success of technology use in education (Fernando, 2011). According to Wermer, Korte and others, (2006) internet, ICT embedded curricular, attitude and skills of administrators, teachers and students, selection of suitable software, financial constraints, policies, research and development are relevant here.

The Mobile phone is used by 70% of the population and the majority of them are in the 16-35 age group. Nearly two million (which forms 14% of the population) use internet in Sri Lanka. Among them 46% access internet using their mobile phones, 10% exclusively and 36% through a combination of modes including mobile devices. 42% are on social networking sites such as Facebook with 78% in the age group of 18 to 34, the majority being university students (Chamara, 2011). Among the students who sat the GCE (A/L), 6.5% or 22,110 students (UGC, 2012) were admitted to the national university system. Of the university intake 17.64% students are admitted to Faculties of Humanities and Social Sciences (or Arts) in Sri Lanka (UGC, 2012). According to the findings of a survey conducted by Hawagamage and Ishaka (2011) 69% of students admitted to the Sri Lankan university system have ICT proficiency (considering the results of e-test performance score more than 40%) in the areas of Fundamentals and Working with a computer, Word Processing, Spreadsheet, Presentation, Internet and Web Browsing with statistics of a maximum mark of 85.2%, average 54.3% and standard deviation reported as 15.9. There are however several barriers existing in the implementation of ICT in education (Khslid, 2009): Teacher level barriers (e.g. lack of confidence, lack of teacher competence, resistance to change and negative confidence) and university level barriers (e.g. lack of time, lack of effective training, lack of resource accessibilities, lack of technical support).

Information was gathered from 102 students, 32 lecturers and 4 administrators from 3 Sri Lankan universities using two questionnaires (one for students and the other for lecturers) and interviews for administrators. The survey results reveal that the Sri Lanka higher education system

[1] Blended learning - This is a mix of the traditional face-to-face teaching approach and the self-directed online approach

maintains a student to computer ratio of 13:1 in Humanities and Social Sciences faculties and other faculties (e.g. Education, Commerce and Law) while it is 3:1 in Computer, ICT, some Engineering and Science faculties (Sabaragamuwa, 2011) . Further, it reveals that 67.9% of students mentioned that ICT literacy component was duplicated on at least 3 occasions: (i) ICT literacy component in the Arts stream curricular at the national universities (e.g. specially office package and fundamentals of computing) (ii) orientation program conducted by the Ministry of Higher education (iii) a majority of students after the O/L and A/L (through private computer institutions). In addition to this, 23% of students have learnt some statistical packages but only a few of them use these packages for their final year projects. The above facts highlight that students are given a considerable amount of ICT literacy and related technologies but duplicated on several occasions.

The sample survey reported that 57% of university lecturers (Humanities and Social Sciences faculties) mentioned that they did not have skills other than in office applications, internet browsing and e-mailing. Further, a majority of them have stated the following: they did not have skills to develop blended learning course materials and e-innovation; they have not been given awareness and motivation programs, and lack technical and ICT skills. Other barriers to the implementation of the ICT embedded teaching and learning process is financial constraints and selection of suitable software (Fernando, 2011). Further, the curricula of Humanities and Social Sciences in Sri Lankan universities have a few computer literacy modules but there is no clear driving force to introduce modern ICT technology embedded in their curricula. In the majority of teaching and learning processes in Humanities and Social Sciences faculties in Sri Lankan universities, they perform it in a face-to-face manner but this methodology is not adequate to face future global challenges and to face the 21st century (Harvi and Chris, 2011). Therefore, adaptive technologies (Oliver, 2011) (e.g. for education to use on-line learning, e-leaning, mobile learning and virtual class room concept as Blended Learning) should be used to actualize the expectations.

With the collaboration of ICT and Computer Science faculties in the same university or in close by universities, or industry experts, the adaptive learning technologies (Harvi and Chris, 2011) can be implemented in a phased manner. This study, recommends the following four models as primary stages of Integration of ICT technologies to enhance the quality of higher education and face the 21st century global competences in Humanities and Social Science faculties in Sri Lankan universities with the use of the existing ICT culture of students and teachers (Fernando and Ekanayake, 2009).

(i) **Peer-to-peer student group activity model:** students should be motivated to use online group discussion forums on subject matter through Learning Management Systems (LMS), on-line chatting, e-mail and through social networking (e.g. facebook), problem solving activities, e-books etc. This model will help share knowledge among different students in the faculties through peer-to-peer activities;

(ii) **Teacher and student oriented activities:** In a classroom or different locations teacher-student activities can be performed as follows: through the LMS, on-line tutor or mentor activities, on-line discussions forums, Brainstorming online chats/discussions, on-line assessments and examinations;

(iii) **Peer-to-peer teachers' group activity model:** In a department, or faculties or different universities teachers' knowledge can be shared using the above mentioned (i) and (ii) methodologies;

(iv) **Teacher Trainer-Teacher model:** This model can be implemented as a knowledge transfer methodology at teacher training centers in the relevant universities (e.g. present staff development centers in several universities or professional training centers) as pre and post teacher training activities using the face-to-face as well as blended technologies mentioned above in (i) and (ii) models.

Further, to implement the above models successfully, motivation programs should be implemented with students, teachers and administrators (e.g. Training leaders, Head of departments, Deans) and resource and attitude barriers minimized.

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