

E-Competency Initiative for Higher Education Staff

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ABSTRACT

In this Paper, I have defined the different terminologies and also tried to explore the vast area and various forms of technology that are used to transmit, store, create, share or exchange information. The paper gives a brief description of ICT tools & technologies, discusses importance of ICT enabled & embedded E-Learning and focuses light on new trends of innovative & interactive E-Learning. I have proposed a project 'E-Competency Initiative for Higher Education Staff', which should be started by Indian Government and should be implemented nationwide.

Key words: E-Competency, E-Learning, Higher Education Systems, ICT, ICT Tools & Technologies, Innovative, Interactive.

1.1 - Introduction

The research has observed the role that ICT can play in reinforcement the three conventional components that mark up the objective of Higher Education System: Imparting Education, Research and Service to the society. The research has put emphasis on the needs for National and Institutional guidelines to sustenance the use of ICT in research and the role ICT can play in reinforcing the improvement of Higher Education System and its Institutions. The research has also examined the role of ICT in enhancing quality, broadening access and reducing costs in the teaching purpose. The research will explore recent trends in the practice of ICT and the new dynamics that can be introduce in Higher Education System. ICT is a carter of transformation but, without good strategy and attentive planning, can have inadvertent magnitudes. ICT is a potentially dominant tool for extending Higher Educational opportunities, formal and non-formal, to previously underserved constituencies—dispersed and countryside populations. ICT helps to cultivate the 21st century skills which include digital era learning, innovative thinking, higher-order intellectual and comprehensive reasoning, effective communication, and extraordinary productivity. It offers opportunities to organize innovative teaching methodologies and to deploy more interesting contents that develop an interest in the students. But there are various challenges such as insufficient availability of technology, inadequate infrastructure, and confrontation to change. Higher Education Institutions are becoming progressively reliant on ICT for providing improved teaching and learning, and

professors are accepting new approaches of working and techniques of teaching with technology constantly [7]. On the other hand, without structure and obligation, these variations may not be bringing out the preeminent that ICT has to offer. Providing a comprehensive account of the quality issues adjoining the use of ICT in Higher Education System, this research has cultivated valuable recommendation and guidance on important areas including: formulating a University-wide strategy developing course materials offering distance and E-Learning courses using ICT-aided assessment implementing professional support procedures. This research has covered all the stakeholders involved in using ICT in Higher Education System- students, professors or Higher Education developers, managers and recruiter. Applications of ICT are principally powerful and acknowledged in Higher Education's research function[1]. This research has examined the highly relevant and important issues of ICT in learning.

1.2 - E-Learning

Adaptation of the E-learning system according to cognitive features of the students is a relatively original direction of research on the conjunction of technical and pedagogical aspects. It is particularly significant that the E-learning systems are able to integrate different paces of content and navigation in order to be able to respond to diverse needs of the students. The goal of this chapter is to present the state of art in E-learning and thereafter to highlight some future aspects. E-learning has become an important part of our Higher Educational life. Different web-based Learning Management Systems (LMS) have

been developed to support the learner in the learning procedure. Previous learning methods were controlled to access and assimilation of information. A web-based system is a valuable sustenance for face to-face communication as well as a way of transmitting the learning content to enhance the students own studies. The pedagogical techniques [12], which expands the learning efficiency and learner engagement in E-learning are creating and promoting the course contents through upright presentation styles, usage of themes and analogies in presenting certain key concepts, game based challenges in exercise, creating and management of customized course contents and disciplined use of a life cycle procedure for creating and upgrading the course. Due to growth of E-learning in Higher Education and corporate training sector [6], interest in personalization of content delivery using multimedia for delivering E-learning, wider access to broadband, Wi-Fi and 3G mobile networks have derived the E-learning field towards the universal learning. User model [11], has significant role in adaptive learning systems. User modeling is a modeling of the cognitive procedure of the human users and their skills and declarative knowledge.

The objectives are summarizing the main trends on the use of ICT as a tool to support efficiently learning lifelong and life-wide. Its goal is further to feed unswervingly into the imminent discussions on 'An updated strategic framework for Higher Education System and training'. And to support better reorganizations integrating ICT for learning to support lifelong learning and innovation at all levels of Higher Education and training and all subjects. Higher Education and training systems should ensure that what people know and can do corresponds to the fast changing learning needs of a knowledge based , digital community. The E-Learning Initiatives are the instrument focused on developing the use of ICT in lifelong learning. It built on earlier actions in support of ICT in Higher Education and training.

E-Learning is a student-oriented approach to the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services, as well as remote interactions and collaboration. A decade of experience in Europe has proven its value as an innovative tool for Higher Education and training. It puts the use of ICT in the context of lifelong learning. It addresses both the practice of ICT for learning and learning to practice ICT. It includes formal, non-formal and informal education and training, whether in the office or elsewhere in daily life. E-literacy, the basics of ICT

use, is fast becoming as significant for work, leisure and personal improvement as reading and writing. Further, E-literacy leads on to E-Competency, the confident and critical use of information society technology for work, leisure, learning and communication. The report reflects the rising complexity of E-Learning and its role as a primary tool for Higher Education and training. All the Member States have programs and actions to integrate ICT in Higher Education and training, and Higher Education should be repeatedly featured in the reform programs. This has often translated into a rigorous effort to provide equipment and teacher training, which has then evolved into a wider use of ICT [2]. National initiatives broadly report the same issues - equipping Colleges, training teachers, facilitating digital content production - and similar earnestness. As a result, they have much in common, even if progress differs. The Nordic countries and the UK took an early lead in the Higher Educational use of ICT. This common experience has facilitated the exchange of information, and open debate. It is not enough to plan for the introduction of ICT. What is needed is to make the most of the potential of ICT to enable better provision of Higher Education and training.

1.3 - The Impact of E-Learning

There has been strong and sustained growth in the connection and use of ICT and internet equipment. Access to the internet and its use is overall in Higher Education, while other Higher Educational institutions are well on their way to the similar result. However, the qualitative influence of ICT is still being assessed [9]. Even though most of these studies are linked to traditional domains of Higher Education and training, the recent move towards post-initial, informal and non-formal learning paved the way for E-Learning towards interactive learning, creative content, personalized and self-directed learning, etc. In other words, context, community, collaboration, competencies, pedagogy, and motivation of learners play an increasingly important role.

ICT use is most widespread in Higher Education. Practically all Universities now have websites and some of them have intranets, so the basis for ICT use is in place. This has been revealed in a steady growth of contentment among students. However, the sector has been slower to take benefit of the potential of ICT to reform curricula and programs. Early evidence pointed to non-radical change, with ICT used to sustenance conventional learning approaches. It was campus-based, with little sign of distance learning [8]. This has changed the role

of both students and teachers because E-Learning has made them more autonomous. Other Higher Education institutions too, reported that ICT was bringing improvements to teaching methods and assessment processes, and motivating learners. A wide range of E-Learning programs are now being provided by Universities across Europe, and the number of cooperation projects to design and promote innovative E-Learning practices is increasing. ICT is fostering the rising internationalization of Higher Education. Networking is enabling pooled courses and learning services and is directing the way towards virtual mobility. The importance of sustainable business plans, including customer-focused goals, was becoming evident [10]. Accurate assessment of the student market, quality assurance and strong student support in service provision and robust, accessible technology with upright technical support were identified as key features of successful plans.

Learning Opportunities

The increasing use of internet and ICT-based tools opens up new learning opportunities for adults. In precise, it can help support the informal learning which is so important to them. Online availability certainly meets the requirements of some learners who accept formal training, for nearly half adult learners consider it as a necessary condition. Interactive forms of E-Learning can lead to a more reflective, “deeper” learning and more empowered discussion, better suited to and more motivating for adult learners [3]. However, it is preferred that adult learning as the chance to meet people with similar interests. Home-based E-Learning does not meet this social motive. Also, students prefer guided learning to self-direction.

Learning at the Workplace

Many large companies have invested heavily in E-Learning and content management systems, reporting high levels of contentment and important cost reductions. Many large public sector organizations have also trailed this path [13]. Many large organizations are now using web applications to sustenance their business improvement by enabling informal learning and knowledge sharing. They often comprise partner SMEs in this process, so co-opting them into the learning process. SMEs (Small Medium-sized Enterprises) have not followed this pattern of ICT use. Yet E-Learning could benefit them organize training with reduced costs and less time off work. Lack of ICT services seems to have been an important explanation. Learning mediators, such

as trade associations or chambers of commerce, could help reinforce the capacity of SMEs.

Informal and Self-Directed Learning

One of ICT's main strengths is its ability to support informal learning. Self-learning and informal peer-learning are by far the two most significant mechanisms for obtaining skills and competences [5]. Electronic networks of interests or occupations provide important platforms to access and share information, to collaborate and collectively develop skills and competences. These new ICT tools not only present new opportunities for E-Learning but also offer a great potential to reconnect groups at risk of omission to public services, learning and civic engagement. Social networks and software tools such as blogs and wikis can help develop key skills and competences. Projects that encourage individuals to share internet connectivity, to grow software, online content or virtual communities are instances of the added value of informal learning through ICT [4]. Innovative companies and Higher Educational institutions are already tapping these online spaces and including novel "open innovation" methods.

1.4 - The E-Competency for Academic Staff in Higher Education

As we have learned from the reports E-learning is on its way, but there remain a bunch of problems to be solved. Frequently, E-Learning implementations in Universities do not fit well with existing institutional cultures, values, structures and pedagogy. Key issues that must be addressed in order to ensure effective use of ICT in Higher Education include: the shift in emphasis from teaching to learning, the changing role of teachers, pedagogical approaches, the complex interactions between various specialists and departments, quality assurance and organizational change. Therefore, the issue of staff improvement and qualification in E-Learning must be embedded in wider strategies for institutional innovation. The government of India needs to start a project ‘E-Competency Initiative for Higher Education Staff’. “E-Competency” requires careful definition that reflects the range of aspects spanned in Higher Education institutions. The E-Competency of an individual staff member relies on their use of E-Learning in a lecture or course, whereas the E-Competency of an institution focuses on strategies to implement E-Learning in a complete study program or set of courses. In the context of Higher Education, we define E-Competency as the integration of pedagogical concepts and institutional

frameworks into the process of technological innovation in teaching and learning. We believe that E-Competency will be one of the key, decisive factors in the full exploitation of the potential of new media. Further, sustainable diffusion of E-Learning will be dependent on the competencies and the commitment of all those involved in Higher Education. The aim of the E-Competency Initiative is the improvement of an appropriate qualification for academic staff in Higher Education in the use of ICT in teaching and learning. Specifically, it aims to undertake a wide ranging study of current E-Competency training, a needs analysis across the sector and to develop examples of blended learning scenarios that combine face-to-face and online modules in a coherent manner. Whilst E-Competency has been referred to in a number of projects funded under the E-Learning Action Plan, there have been, thus far, no substantial in-depth analysis or improvement of the theme on a European level for academic staff in Higher Education. We see the E-Competency Initiative as a logical follow-up action to be taken in order to secure the involvement and active participation of the key persons at universities and thus to enable a sustainable integration of ICT in Higher Education.

1.5 - Conclusion

ICT is pervasive in shaping all parts of our society, economy and culture. Since 2000, the European Union has stepped up its activities to improve E-Learning and the improvement of digital competences through Higher Education. The institutions have been ICT-equipped and teachers and trainers ICT-trained, ICT has not yet transformed teaching and learning as it has transformed processes in other key sectors such as enterprise or public services. Nowadays, educational, technical and institutional innovations stipulate a renewed and more widespread approach towards the role of ICT in Higher Education and training. This renewed approach should address the impact of technological change and innovation in society and Higher Education in the last decade. The effective integration of ICT in Higher Education System can be possible by applying following concepts:

- ICT as a basic Higher Education and training tool
- ICT as an enabler of lifelong learning
- ICT as a key driver for creativity and innovation

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