USING TECHNOLOGY TO ENHANCE HIGHER EDUCATION

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Abstract: Higher education, dominated in the past by an exchange between instructor and the students in a classroom, has expanded to a variety of delivery systems. Technology can be expected to deeply affect higher educational institutions. Distance education, as a pioneer in the uses of technology, not only should adjust to the possibilities of advanced technology, but also should modify existing structures so as to enhance life-long learning and e- learning. Distance education system is expanding with the development of communication and information technology.

Keywords: technology, education, communication, information, change

1. European higher educational system vs. technology

The European higher education has passed through many changes in the last two decades, being included in the much broader Western and Eastern European reforms. Since the late 1990s, the rate of change has accelerated to unprecedented levels, largely on the shoulders of three key developments: the Sorbonne Declaration (1998), the Bologna Declaration (1999), and the Lisbon Strategy (2000). The Sorbonne Declaration of 1998 was the first signalled preference of major European countries (France, Germany, Italy and the UK) for a more compatible and comparable set of European higher education systems over the longstanding perspective that Europe's diversity was its strongest asset.

The first two key development objectives are to make study programmes more compatible across European systems. The Lisbon Strategy, including its 2005 restart New Lisbon partnership for growth and jobs, seeks to reform the continent's still fragmented systems into a more powerful and more integrated, technological - based social-economical enviroment. Subsequent communications from European policymakers have only strengthened the belief that higher education institutions will be crucial to Europe's future well-being and, in effect, the lynchpin that binds these major processes and strategies together.

1.1.Lisbon agenda

Lisbon agenda has become known through objectives that follow the transformation of the European economy as the most competitive and dynamic knowledge-based economy capable of sustainable economic growth, offering better jobs with a higher social cohesion. To achieve, by 2010, this objective , the EU should coordinate its efforts to obtain not only a radical transformation of the economy, but also to adopt an ambitious program for the modernization of the social and educational system.

Regarding the major role of entrepreneurial education in universities there are numerous papers (Franke, 2004) in article Entrepreneurial Intentions of Business Students: A Benchmarking Study published in International Journal of Innovation & Technology Management. "All over the world there are rapidly developing businesses based on new technologies within the small and medium sized companies, an area that needs technically specialized staff, with knowledge in the business domain, to manage the organizations and groups, so the formation education in the domain of entrepreneurship must be developed".

1.2. Bologna declaration

The main objective of the Bologna process is to create a European area of higher education based on international cooperation and academic exchanges, a European area attractive to both students and teachers in Europe, as well as around the world. The creation of this European higher education space facilitates the mobility of students, graduates and academic staff, prepares students for their future careers and lives as active citizens of democratic societies, and provides support for their personal development by providing access to quality higher education.

Regarding the theme of the present article the Declaration has two principal implications.

Firstly, the emphasis on the individual choice undermines the traditional assumption that learning best takes place within an institution, within a fixed period of time defined by academic staff (Trowler, 1998).

Secondly, the focus should be on competence and general skills more than on acknowledge and the skills of reproduction of the didactic material put on the reach of the student. The restructuring of the curriculum will impose the change of teaching from subject-based teaching to student – based teaching, where the teacher is a "facilitator rather than expert" (Ensor, 2004).

The Declaration has had a major impact in the academic plan; most of the institutions of higher education have adapted the University`s curricula in consonance with the principles laid down above.

Furthermore, there have been created platform that allows an easier access of the students at the bibliographic resources, the possibility of informing them about the contents of the disciplines and, in general, better information of students with all the changes that occur during the academic year.

Moreover, Informatics laboratories have been established within all the faculties regardless of the specialization, in order to prepare students and teachers with the use of electronic resources that is intended to facilitate access to the career and the acquisition of complementary skills to the specialization that they have.

1.3. European Recomandations

The Recommendation of the European Parliament and Council of 18 December 2006 regards key competences for lifelong learning providing an European framework of reference which covers eight key competences, defined as "knowledge, skills and attitude." Our project aims at most of these competences, especially those related to creativity, innovation, learning process, spirit of initiative and entrepreneurship, cultural awareness and expression.

Innovative capacity is closely related to creativity as a personal trait that is based on values and cultural and interpersonal skills.

In March 2007, the European Council stressed again the role of education and training as a key factor in enhancing creativity, innovation, performance and competitiveness, giving the concept of "knowledge triangle": education, research and innovation. (see Recommendation 2006/962/CE, JO L 394, 30.12.2006).

Moreover, for the period 2007-2013, the European Commission has integrated its initiatives in education and training under the umbrella of a single program of lifelong learning.This program enables European citizens, regardless of their age, to benefit from learning opportunities throughout Europe.

As higher education has developed, also the standards required by the society have grown. Today, higher education and research are associated with the notion of progress and innovation, both at the level of individuals, and at the society level. In order to adapt higher education to these new orientations towards society needs, curriculum reform becomes one of

the most important tools.Any effort at curriculum revision should be designed to prepare all students for effective citizenship and participation in an increasingly diverse multicultural and multiracial society. Major curriculum revisions and articulation agreements at colleges and universities should involve consultation with faculty members from other educational institutions affected by the changes.

2. Impact of techology in education

Traditional campus based education is no longer the only way to delivery mode. Due to the technological developments the last decades has noticed a significant increase in different forms of education and new educational providers, such as universities, have a wider impact, almost global (Stella and Gnanam, 2004). They include a wider range of provisions, more than just face-to-face meetings:

- distance educations programs that are delivered through computer, internet, correspondence or other technological means
- degrees gained through study in more than one country as a result of agreements between institutions from different countries in joint educational programs
- virtual universities
- study abroad semester as in Erasmus projects.

Technological resources put at the hand of students consist mainly in the use of computer, use of means of distance communication, projector, or electronic data storage.

2.1. What students are using technology in education

Technology has removed the limitations of time and space, so the number of students who can attend a class has increased dramatically (Lawson, 2007).

A lot of students who were eliminated from college instruction due to their physically inability to be present in the classroom are now able to participate in higher education due to distance education. This is the reason why American National Center for Education Statistics (2008) defined distance education as a formal educational process in which the instructor and the student are not in the same location. Thus, instruction might be synchronous or asynchronous, and it may involve communication through the use of video, audio, or computer technology, or by correspondence (which may include both written correspondence and the use of technology such as CD-Rom) reducing the in-class seat time for students.

The students taking advantage of educational opportunities made available by new technology include (Renes and Strange, 2010):

- students with physical disabilities
- parents with children who find it difficult to leave home
- students working full time with no flexible time schedule
- urban students for whom is easier to time-shift than space-shift
- students from rural areas
- military/diplomatic personnel serving in remote locations.

Students want the flexibility that distance delivery offers, allowing them to combine work and school demand.

Continuing education using a distance format is appealing to employers who can reduce training costs, increase productivity with less time spent away from the company office, and increase the professional knowledge for the employees (Appana, 2008). Employers moving into new areas in their carrier can do so easier by obtaining professional certificates or a college degree online.

2.2. Organizational change in Universities

Since non-traditional students have different academic and social needs than traditional students, the universities have to adapt. There are important quality measures in learning that must be taken to ensure that e-learning courses are of the same quality as traditional courses (Husson and Waterman, 2002).

First step consists in the selection of appropriate faculty members for web-based delivery. The faculty members selected for this position have a base knowledge of technological instruments and the abilities to organize the proposed tasks.

Step two consists in providing faculty training and support for teachers. University staff and auxiliary staff should benefit from specialization programs in order to use the benefits of modern technology.

If institutions are to provide technological resources and stimulate the adoption of education technologies, it is vital to be gathered information about difficulties their users may encounter (Lane and Lyle, 2010). Even if most faculty members are aware of the benefits in using technology to enhance students learning, many chose not to adopt and use available educational technologies (Sax, 2000).

Step tree consist in designing a learning environment with care. In order to ensure the quality as face-to-face courses, the new programs have to design the transition of the students to use web-based-technology. Being given these reasons we recommend that the first course to take place in the traditional manner and to be trained on the web-based course management platform that will be used for the remaining part of the teaching program (Husson and Waterman, 2002). Based upon the student's feedback and input the course might suffer some changes.

3. Conclusion

Technology provides us with a great opportunity to modify our approaches to teaching and learning in a positive way. Expanding the use of this knowledge could help a lot of students who were deprived by their dream of education.

Many factors contribute to resistance in using technology to promote distance education. We also have in the Romanian system of higher education, a series of negative examples in which universities have used on a wide scale distance learning and forms of examination via the Internet. These universities have used modern communication systems only in order to have an education in mass making the rebate from all the higher education`s quality rules. But despite all these examples of bad omen that we have, there is no need to buffer the development of the Romanian education on this plan.

It shall be required the assessment of clear qualitative rules and of a governmental system of inspection in order to be respected the ambitions of higher education that whether we want or we do not want must evolve in connection with modern technology.

We can`t ignore the benefits and advantages of technology:

- students and teachers do not have to be present in the same classroom
- deliverable of content can be adapted to the needs and schedules of the students
- competition among institutions of higher education is facilitated independent of the geographical area
- courses are available easier to students with special problems as mothers, handicapped, soldiers employees
- students have more control in their learning style
- content can be delivered where is needed (Eamon, 1999).

The use of technology has a number of implications in the context of education, considered somehow traditional; teachers teach students the course using powerpoint platforms that are able to attract increased attention on the part of students. We achieved that,

a few years ago, many of the teachers were reluctant in the use of powerpoint presentations in the Universities, but recently the most of the courses are held using this innovatory formula. All in the same sense, we see a better ability and wish of using such means only by younger generations of teachers, the reluctance of elderly academics towards this innovative aspect still persisting nowadays.

Also an application of the innovative teaching methods consists in the distribution of the course support in electronic format, or saved on electronic devices or by electronic means of distance communication. This variant also ensures a decrease in the cost of schooling and even a positive impact on the environment.

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