EDITORIAL

Quality and Uses of ICT at Universities

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Over the past two decades, and with varying degrees of swiftness and insight, universities have introduced information and communication technologies into their administrative and educational activities. The analysis of the relationship between higher education institutions and the information and knowledge society is the main focus of our editorial line and our journal has presented a variety of research results and analysed this reality in several of its monographic issues. However, until now, no monographic has been dedicated to the analysis of something as crucial as quality evaluation at universities, with a special emphasis on ICT use.

As we have already argued and analysed in several previously published articles, the introduction and use of ICT in universities does not, in itself, imply any innovation or improvement in the quality of the university system, but the adequate use of necessary and inevitable technologies, as a base or a complement for management and learning processes in higher education, certainly can help to improve the learning process and performance. Recent studies demonstrating this are often being published in RUSC.

Technology is an instrument, a base upon which to operate, a means which, if properly understood and handled, can help us to improve the processes and the results of our academic undertakings. The presence of technology or its use in the classroom does not, however, come with an inherent guarantee of quality. Quality and its evaluation go beyond the mere use of technology and require an analysis of objectives, processes, agents and, of course, results. Several of these topics are part of the monographic we present here in the second issue of volume 6 of *RUSC*.

In our opinion, guaranteeing quality in higher education today, in the 21st century society of knowledge, must consider the appropriate use of technology. With the emphasis on "appropriate". Otherwise, we would not be taking into account the reality of our society, and, even worse, the reality of our students as regards communication, experience and customary information access. Therefore, while technology must be present, it should not eclipse the main objectives of higher education institutions, which include training, research and divulgation of knowledge.

In an interesting recent article in Edge (www.edge.org), entitled *The Impending Demise of the University*, Don Tapscott analyses the challenges universities face in the digital era. Among other things, he stresses the need to overcome traditional classroom techniques. Tapscott argues that universities should be spaces more for learning than for teaching, and ICT are doubtless of great help in achieving this, but understanding and making good use of students' current way of learning helps even more. Universities now face the challenge of being able to adapt to the new generations of students. For this, the university must operate online in shared knowledge networks, together with other institutions and people: a network of networks, a great structure of nodes of knowledge. These are the current challenges of higher education institutions and they presuppose an understanding of information and communication technologies as a tool for cultural change, communication and transformation of learning processes.

All this is involved in the quality of universities today. Relating research to training, guaranteeing flexible training adapted to the needs of the students, providing learning resources which are adapted to teaching and learning processes and go beyond traditional classroom techniques, training lecturers in the appropriate use of ICT and guaranteeing that our students obtain the competences needed to enter the labour market. These are some of the key elements that any quality assessment process in higher education needs to take into account. Appropriate use of ICT is fundamental for this.

Diversity, whether in attending the educational needs of students or the wide variety of levels and areas of student interest in the classroom, is something that also has to be taken into account when discussing quality. And, once again, it can be dealt with appropriately with the intensive use of ICT. These technologies allow for a treatment of diversity and personalisation of learning processes while also offering the possibility to bring together, in a single non-synchronous environment, students and teachers from different places and with different conceptions, which, without doubt, brings complexity to the system and enriches it.

Information and communication technologies also allow us to deal with transversality in training programmes, another important element in quality assessment in universities. This transversality manifests itself through the necessary multi-disciplinarity of the programmes, but is amplified by ICT with the use of knowledge networks, with the participation in alliances of international networks that facilitate mobility of teachers and students. This mobility does not necessarily have to be physical as it can occur over the Internet thanks to asynchronous presence and a real exchange of ideas, concepts, projects and experience. In the digital era we are, without doubt, dealing with new ways of working and understanding education.

Mark C. Taylor highlights the paradox of the present-day university in a recent, polemic article in *The New York Times*, called "*End The University as We Know It*", describing how frequently training is provided for which there is no market and students are taught skills for which demand is declining. This is what we would call a lack of attention to *academic sustainability*, the university's lack of attention to market viability of the training provided and the skills being taught to students. There is no doubt that this has to do with the quality of the system, specifically in the analysis of training results. Taylor calls for a change in the contents of programmes, networking at universities and a change to the system of the traditional classroom: three of the challenges which have a lot to do with the quality of the system and which can be achieved with an adequate use of ICT, particularly the Internet.

There is no doubt that the quality of higher education in the knowledge society is going to depend on the adequate use of ICT in areas including administrative systems, teacher training, learning processes and resources, changes to the traditional classroom and the setting up of networks. We must rethink and change the educational models of our universities so that they can keep up with the demands of education in the digital era.

In the end, what is evaluated – or what should be evaluated – in any quality process in higher education is the results of learning and, according to what we have called academic sustainability, these results must be in agreement with the demands of our society. It is difficult to imagine achieving adequate learning results for the knowledge society without a substantial change in educational models which include a change in the traditional classroom. The change to a digital era classroom, the online classroom as part of the online university is the challenge we have to face.

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