Chapter 7

Information Technology in Higher Education Management:
Computer Program for Students’ Evidence

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ABSTRACT

Information technology instruments are a very important asset in the hands of every manager. The higher education institutions make no exception from these rules. The exposure to the modern technology and communication tools is very quickly assimilated by students, who acquire the skills to address and even master it and have high expectations from the university they study in to provide them with accurate and real-time information on their particular needs. The management of the university should have at its hand data on students, including personal data, data on academic achievements of any kind, housing in hostels, due and paid tuition fees, data on research, emphasizing both resources allocated and the results obtained, even providing links to online platforms and databases that index these results. The authors approach both operational databases and decision-oriented data warehouses and will aim to capitalize their own research interests in the field of IT to synthesize a set of solutions for this type of software.

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INTRODUCTION

At the beginning of the millennium, education crosses a process of development to meet the current demands of society, a process marked by the phenomenon of globalization and the unprecedented development of information technologies. We are witnessing a series of economic, technological and cultural changes that come both in good parts and in more difficult parts, which imply the need for adaptation in everyday life.

The introduction of ICT into higher education management has quickly received an air of inevitability, with most decision-makers in the field of higher education strongly supporting this issue, as the field of education has over time suffered from the lack of tools specifically created to improve the management of education at all levels. Thus, the last decades have transformed information technology from a product intended for a small number of people, due to high acquisition costs and relatively large dimensions, into a ubiquitous instrument in the professional and personal lives of the citizens of the country.

The advantages of using ICT are not negligible, which has attracted the rapid spread of formal and non-formal educational activities. One of the most visible benefits that ICT brings is accessibility of information. Education has used the opportunity offered by ICT to rethink how to deliver educational content in a manner that improves managerial performance. The management of the beneficiaries of educational services can be improved by creating tools to track the progress achieved - both by each student and by the academic community.

BACKGROUND

Information technology in education, according to foreign specialists - is defined as a combination of processes and tools involved in addressing educational needs, using computers and other electronic resources and technologies (Ball & Levy, 2008; Roblyer, 2006), and information technology applications in education are called “educational technologies” (Bernard & Abrami, 2004; Kingsley, 2007). In education, an example of IT is the type of wireless connection used for online learning, management systems, Internet technologies, high-speed communication infrastructure, emerging technologies for visual presentation, access to course materials through Internet resources and artificial intelligence (Ball and Levy, 2008). A classification of educational technologies is made by them in three categories, as follows: (1) training, (2) productivity, (3) administration.

Nowadays, most academics use ICT Information Applications - for teaching purposes, such as tutorials, research, simulations, and other forms of instruction. The use of online learning systems by faculties is more and more frequent, Bernard and Abrami (2004) suggesting that the use of educational technologies has increased curricular learning between faculties and students that promote constructivism. In addition to the many benefits, the use of information technology also has some challenges (Schmidt, 2002), such as: “the effective replacement of traditional classrooms is one of the greatest challenges in placing the course on the internet.”

The idea of the information-based society was launched in the US and became of great interest in Europe after writing a famous report of the European Union, named after its coordinator, famous today, today’s controversial Martin Bangemann. UNESCO’s Objective by UN Charter is the UNESCO’s key objective of contributing to peace and security in the world by promoting collaboration among nations
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