ICT USE IN UNIVERSITY OF ELBASAN AND ITS OBSTACLES

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Abstract

Information and Communication Technology is a major transforming force in today's global society. The development and use of computers and ICT may have been the only important factor that has greatly changed the organisations and society in the last decades by revolutionizing the way of life. ICT has become an integral part of the daily life. Education is an important sector that has been affected by the use of ICT, which is being massively used in the auditoriums of the Albanian universities to improve and enhance the teaching and learning process. The functionality of ICT is contributing in the application of innovations in activities in and out of university auditoriums, thus considerably increasing the interaction between lecturers and students. The challenge in the use of ICT in education is to define how to better use ICT in improving the quality of teaching and learning, in sharing knowledge and information, thus better meeting the needs of society, lowering the education costs, and improving and increasing the efficiency of the education system. This study has been conducted during October 2014 - March 2015 at the "Aleksander Xhuvani" University of Elbasan, and aims to present a view of the level of ICT use in this university as an administrative means and as an auxiliary tool in the process of teaching and learning, and the obstacles in making the use of ICT massive. The collected data are used to draw conclusions and give recommendations to make the necessary changes to have a better use of ICT in the Albanian universities, and make it more efficient in serving teaching and the education system.

Keywords: Information and communication technology, university, information, knowledge, educational technology

Introduction

The education system, especially higher education, has undergone many changes during the last years, which have been affected by many factors, such as:

- The increasing trend of using the ICT in the process of teaching and learning,
- Governments policies to make higher education available for the masses,
- The Bologna European Process,
- Structural changes in the universities,
- Competition,
- Job market,
- E-Learning,
- Lifelong Learning,
- Mobile Learning etc.

These factors have rendered the digitalisation of the universities an absolute necessity to cope the new challenges faced by the education system, such as improving the quality of teaching, administration, and making higher education available for the masses.

Digitalisation of universities is related to:

- Quantity of IT equipment (computers, smartphones, projectors etc.) available to teaching and universities administration
- Use of broadband internet
- Use of e-mail by administration, lecturers and students
- Students' possibilities in using the benefits of electronic data sources and information, etc.

The "Aleksander Xhuvani" of Elbasan is one of the most important universities in the higher education system in Albania, which is in the first phases of important investments to facilitate the use of ICT in the teaching process.

The university comprises of 5 faculties, and offers studies in 4 levels:

- Bachelor
- Professional Master
- Master of Sciences
- Ph.D.

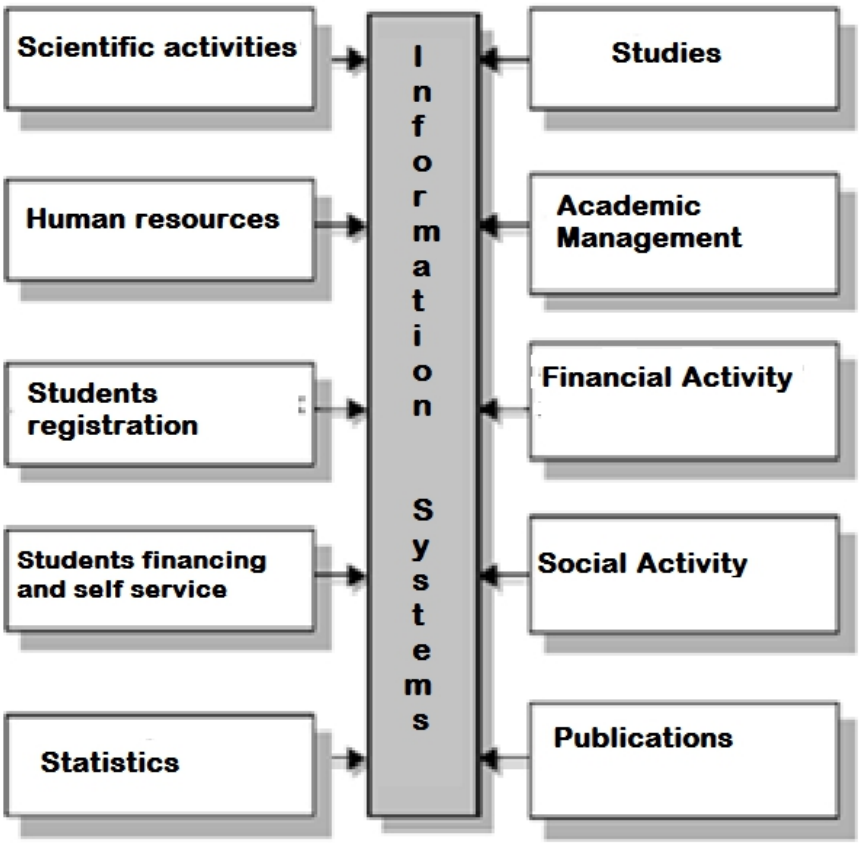
The capacities of the University are:

- 12044 students
- 256 academic staff
- 302 external academics
- 92 support staff

The university has had for years an information system installed to serve the academic staff, administration and students, in order to electronically manage parts of procedures and academic and administrative activities.

The main processes realized using IS are:

- Recruitment and admission.
- Student registration.
- Academic advising.
- Student financing.
- Student self-service.
- Facilities management (Campus).
- Statistics.



A novelty in this process is the e-learning platform for students and lecturers in the process of teaching and learning. Computers and other ICT equipment are also installed in lecture auditoriums, to facilitate the teaching process through technology.

The insufficient number of installed equipment means that in many cases the teaching process follows the traditional format in which the lecturer explains and students take notes and interact with the lecturer in the auditorium about the topics. Students are given homework for some of which they have to use computers and other technological equipment to obtain necessary information and supplementary literature. They have to do this at home or in their accommodation, because the number of these equipments in the university is limited.

Although the University of Elbasan has started to use ICT for academic and administrative purposes, it does not yet have enough equipment, e-mail addresses for students, possibilities for use of ICT etc, to be considered digitally equipped.

Literature review:

Today's society is experiencing the period of massive use of internet and ICT.

The use of ICT has many effects on the economic and others sectors of the social activity. These effects and changes are reflected in the transformation of the structuring, operations, range and quality of the services that businesses offer to their customers. Management staff continuously searches for new ways of applying ICT for the purpose of increasing the performance and achievement of mid and long term objectives of their companies.

The term Information and communication Technology is a generic term used to define or refer to the technologies being used to and for collecting, storing, editing, and passing information in various forms (Jager & Lokman 1999).

Chapman and Oliver (1992) describe Information Communication Technology as the technology, which supports the activities involving the creation, storage, manipulation and communication of information together with their related methods, management and application.

ICT is perhaps the enabling tool that will bring transformative change (Oblinger & Rush, 1997).

The education system has been affected as well and this has been dictated by factors like competition in the sector, making education available to the masses, policies and strategies that governments enforce to transform the sector, etc.

The use of ICT in universities has enabled a better and qualitative management of administrative and academic processes, impacts on improving equitable access to the university information and procedures, improving the quality of education.

In the framework of the strategies that many countries have in place for making education in general available to the masses and of the higher education in particular, the use of ICT is a suitable tool that serves well these strategies and has helped in the increase of the number of readers.

The lecturers in the universities have also transformed the teaching process in the auditoriums, by implementing projects that rely on the use of ICT. The use of ICT also helps for equal opportunities in education, by facilitating suitable formats of lectures for special categories, such as disabled students.

ICT is transforming the world of education. The traditional model of classroom education is being challenged by models that enhance and change the way that classroom education operates and online education is expanding quickly.

Generally, the following functions of the use of ICT in education are described in literature (Moonen and Kommers, 1998).

ICT as object. It refers to learning about ICT. Mostly organized in a specific course. What is being learned depends on the type of education and the level of the students? Education prepares students for the use of ICT in education, future occupation and social life.

ICT as an 'assisting tool'. ICT is used as a tool, for example while making assignments, collecting data and documentation, communicating and conducting research. Typically, ICT is used independently from the subject matter.

ICT as a medium for teaching and learning. This refers to ICT as a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks.

ICT as a tool for organisation and management in schools.

Penrod (2003) noted that ICT should impact the daily operations and functions of a university, it should relate directly to the mission of the institution

According to Freedman (2002), a lot of administrative burdens can be relieved by using computers and ICT wisely. He lists activities such as examinations entry, registration of students, informing people, scheduling, data analysis, lesson plans and preparation, timetabling, publicity and image, diaries, departmental handbooks, budget and capitation. Obviously many other things can be added but the above activities are critical to effective administration.

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research (Yusuf, 2005). ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create

economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change. (Davis & Tearle, 1999; Lemke & Coughlin, 1998).

The integration of ICT can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnership with ICT as a tool. According to Zhao and Cziko (2001) three conditions are necessary for teachers to introduce ICT in their classrooms:

Teachers should believe in the effectiveness of technology

- Teachers should believe that the use of technology will not cause any disturbances
- Teachers should believe that they have control over technology

However**,** research studies show that most teachers do not make use of the potential of ICT to contribute to the quality of learning environments, although they value this potential quite significantly. (Smeets, 2005)

The adoption and use of ICTs in education have a positive impact on teaching, learning and research. ICT can affect the delivery of education and enable wider access to the same. In addition, it will increase flexibility so that learners can access the education regardless of time and geographical barriers. It can influence the way students are taught and how they learn. It would provide the rich environment and motivation for teaching and learning process which seems to have a profound impact on the process of learning in education by offering new possibilities for learners and teachers. These possibilities can have an impact on student performance and achievement.

In a brief, the term ICT as applied to education, are those technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony that can facilitate not only delivery of instruction, but also learning processes itself. These technologies has been identified as an important tool for realizing a new paradigm of learner-centred education that better supports learners' needs through differentiated and personalized instruction (Watson & Watson 2011).

Metodology

300 students, 58 lecturers and 7 members of administrative staff of the "Aleksander Xhuvani"University of Elbasan were interviewed for the scope of this study. They were given questionnaires to fill, which were then used to process the data and obtain the relevant results.

In order to collect data from a wide population and obtain as full as possible conclusions, students and their lecturers were selected from the five faculties of the university.

276 students, 43 lecturers and 7 members of administrative staff filled the questionnaires.

They answered questions related to:

- Available infrastructure in the university (equipment, connectivity, content resources),
- Number of desktops, laptops, data projectors for each faculty and in total for the university,
- Their definition of ICT in the academic environment,
- Their opinions on and approach to the use of ICT,
- If they comfortably use the ICT,
- Length of experience,
- How often have they used ICT in teaching and learning,
- ICT based activities they conduct,
- Functionality of the present ICT structure in the university,
- Scope and use of ICT by students in and out of the university,
- Use of e-mail for student-lecturer communication,
- Strategy of faculties and of the university on the use of ICT,
- University policies on the use of internet, blogs, social networks and online resources to serve the process of teaching and administration,
- Specific structures in the university to assist people who have difficulties in using ICT,
- Other social, economic and demographic issues.

Results:

Important conclusions and information were obtained by the data from the questionnaires of this study.

a. How much technology is used in the university

1. Desktops are installed only in some classrooms, thus not allowing students to use them freely at any time. The ratios are 100 students / 1 computer and 180 students / 1 projector – which is very low compared to European universities.
2. Only 12 (or 4%) of the interviewed students used personal laptops – this is related to the economic and social situation of their families.
3. All lecturers have desktops and laptops, but they use them in their offices to obtain and prepare information and academic materials, rather than using them in lectures with the students.
4. All computer equipment in the university are connected to broadband internet. E-mail addresses are only available to lecturers and not to students.
5. 107 students have replied that they have satisfactory ICT knowledge and they easily use it for learning and reading.

6. All interviewees are users of ICT and there seems to be no relation between their level of ICT knowledge and the spread of ICT use.

b. Use or non-use of ICT

1. Almost all students have participated in classes where lecturers made use of ICT. 237 out of 276 students (86%) who handed in the completed questionnaires answered "Yes" to this question. The rest, 39 students (14%) answered that they have not participated in classes where lecturers made use of technology.
2. 58 (21%) of the interviewed students confirm that they use desktops at the university at least one a week for the purpose of reading. The rest use them more rarely.
3. According to the students, the low level of computer use for reading is related to the insufficient number of computers, which are installed only in some labs or auditoriums. This was also confirmed by the lecturers – all lecturers who filled the questionnaires confirmed the insufficient number of ICT equipment used for teaching and learning.
4. *37 students* (13,4%) who filled the questionnaires confirmed that they use individual devices in the learning and teaching process in the university (18 of them use smartphones, 12 use personal laptops, and 7 others use tablets)

c. ICT based activities

1. All lecturers that filled the questionnaires confirm that they have been regularly using computers and internet for academic purposes during the last five years.
2. 217 (78.6%) of the students who filled the questionnaires confirm that they have been using computers and internet to learn. There is a relation between high education and the level of ICT use. Students from rural areas are the ones who have not used computers and internet to learn until completion of high education, and this is due to technical, economic and social factors.
3. Students who use ICT in teaching and learning, confirm that using computers is fun, and that they use them for learning to cope with future life.
4. Activities related to teaching and learning are the ones which more often rely on the ICT. 98 students (35.5%) confirm that they are advised by their lecturers to search for literature, prepare case studies and assignments at least once a month, but 143 (52%) of them have never used digital textbooks, exercise software, multimedia tools.
5. The most important activity in which lecturers use ICT was preparing the lectures (browsing to prepare lessons, preparing tasks for students, preparing presentations, collecting online resources to be used during lessons)

6. Lecturers who filled the questionnaires also confirm that they have not been able to often ask students for independent work in doing their assignments or to search for supplementary literature, because of the insufficient number of equipment available to them.
7. For the teaching and learning process, students use technology more often at home or in their other accommodations, than in the auditoriums.
8. Lecturers confirm that they rarely communicate online with the students, because of the limitations in the availability of the technology to students.

d. Confidence of Students and Lecturers in using ICT

The confidence of students and lecturers in relation to various ICT skills does not mean their actual competence in these areas, it is nevertheless important as it is a component of their competence and can have some potential influence on the frequency with which students and lecturers use ICT based activities for teaching and learning within auditoriums(classrooms).

1. 47 students (17%) say that some of the lecturers have difficulties in applying ICT in teaching and learning, although they think of positively. Although there are many available online sources of information, such as blogs, forums or other social networking sites, only a minority are actually using them and exploiting their benefits. The more confident lecturers were in using ICT and social media, the higher their tendency to organise ICT based activities
2. Only 7 (16%) of the 43 lecturers who filled the questionnaires confirm that they have difficulties in implementing ICT in teaching and learning process and require support to develop the skills needed for the pedagogical use of ICT in teaching and learning process, as well as for the effective use of the internet and the application of ICT in teaching of specific subjects.
3. 244 students or 88 % of them answered that they are confident using safe internet and social media.
4. 202 students or 73 % of them, confirm that they are confident using ICT tools, e.g. Word, Excel, Outlook, and PowerPoint.

e. University policies, strategies, and support

1. University of Elbasan has favourable policies related to responsible and safe use of internet and social networks for the teaching and learning process.
2. Deans offices have a strategy to encourage the use of ICT in teaching and learning, which focuses on the following use of ICT in the university:

- Increase the number of technology equipment used in teaching and learning in the university, to make it possible for students and lecturers to use ICT

- Include ICT use in the curricula
- Support students and lecturers who have difficulties in using ICT

3. Lecturers and members of administrative staff who were interviewed hold the same view that use of ICT in teaching and learning is important is preparing students to live and learn in the XXI century. They also indicate the need for a radical change in the use of ICT in the University of Elbasan, so that it can be fully used in the process of teaching and learning.

Conclusion

1. Infrastructure provision at university level appears as an obstacle to great use of ICT in university. The majority of the identified problems are related to the insufficient number of computer equipment in the university.
2. There seems to be no relation between the present use of ICT and skills of students and lecturers in using it, as the insufficient number of these equipments does not allow for this relation to be assessed.
3. In many cases, the way ICT is used by students in the university is not suitable to have an effect on the teaching process, in which the students must have the possibility to search for information and literature, and complete their assignments.
4. The students hold a positive view on the ICT in the teaching and learning process. They feel comfortable when they manage to use it, and consider it as a way of acquiring more knowledge and to better prepare for the challenges of life.
5. ICT is not used enough in teaching and learning, and this is related to the insufficient number of technological equipment. Because of this, the lectures are conducted in the traditional way, in which students only listen, take notes, discuss about what the lectures explains, and read the notes they've taken to do the assignments.
6. There are still some lecturers who have difficulties in using ICT in the teaching and learning process.
7. A relatively small number of students have difficulties in using ICT in teaching and learning. These are the students who attended high school in rural areas, where the use of computers and internet in teaching and learning has been very limited.
8. E-mailing was not very popular among students.
9. There are no ICT teaching and learning programmes in some faculties of the university.
10. In order to achieve European standards, ICT supported hardware, software, internet, audio visual aids, teaching and other accessories demand huge funds, but the budget of Elbasan University is not satisfactory compared to developed countries,.

11. There are right policies in place on the use of internet and online sources of information and their correct use in the process of teaching and learning.

Recommendations

1. Because most problems identified in the use of ICT are related to the insufficient number of equipment, it is important that the deans of faculties demand that more equipment become available, as an element which creates more opportunities for the students and lecturers to use ICT in the process of teaching and learning.
2. For the same purpose, it is necessary that financing from the budget is higher.
3. A supporting structure needs to be created to assist students who have difficulties in using ICT, in order to equip them with the necessary knowledge. This problem is mostly identified at students coming from rural areas where the use of ICT in the high schools is limited or inexistent – an indication that high decision makers in the education system should take measures about the uses of ICT in these areas.
4. To implement ICT in the university, the lecturer should feel confident and comfortable in using computers, so the lectures become interesting, easy and attractive, so that students feel more motivated and benefit as much as possible.
5. ICT related disciplines need to be more included in the curricula of the higher education.
6. Strategies supporting the use of ICT in teaching and learning must be accompanied by more policies in favour of innovating of the teaching methods, organisation of the universities etc.

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