

## **ADVANTAGES AND DISADVANTAGES OF E-LEARNING IN COMPARISON TO TRADITIONAL FORMS OF LEARNING**

**MIRJANA RADOVIĆ-MARKOVIĆ \***

**ABSTRACT:** *Internet education is soon to become the dominant form of education in the world. A lot of effort is being devoted into furthering the work methods and communication among students and professors, aimed at bettering the quality of this kind of studying. Moreover, further development of virtual education in the future will depend on the advance of contemporary technologies and the Internet. Having this in mind, the author of this paper has tried to explore to what extent the previous results have been accomplished, as well as to classify the different modalities of this kind of learning and to ascertain their advantages and disadvantages. A special emphasis has been put on the great utility value for all developed economies, which have made great progress in the development rate and in the spreading of virtual faculties' network. At the end of this research paper, recommendations are given, and further trends of Internet education are established, juxtaposed to the classic forms of studying, based on the latest research results in this field. The author especially emphasizes the fact that faculties with "classrooms without walls" will not fully replace traditional faculties. The value of this paper lies particularly in the fact that it builds not only on the contemporary research findings, but also on the author's personal experience as a professor engaged in this form of student education.*

**KEY WORDS:** *Internet education; knowledge; syllabus; e-learning; learning models; students; women; USA; Serbia*

**JEL CLASSIFICATION:** *A22, I20, L26*

### **1. INTRODUCTION**

The education system provided via the Internet is being improved year after year and has been enhancing along with the development and advance of Internet technologies. The advance of e-learning has, to a great extent, been affected by the development and application of wireless Internet.

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\* Full professor, Ph.D., Institute of Economic Sciences, Belgrade, Serbia, [mradovic@gmail.com](mailto:mradovic@gmail.com)

Furthermore, the advance of e-learning has been influenced by numerous software programs, such as the Blackboard system, and others. By means of these, as well as other programs, students are enabled to be in constant contact with their virtual professors.

Most often, they have lectures or consultations with their professor live, twice or more times a week, whereas during other days throughout the semester, professors ask students questions, initiate discussions, send additional reference materials, assign topics for seminar papers, etc. Yahoo voice messenger, Skype and similar programs, where the professors' voice may be heard, along with video conferences, are used for lectures.

However, certain faculties do not offer this means of communication among professors and students; instead, they use readymade software packages which are bought by students along with the tuition fee at a certain faculty (for example, Lacrosse University), and he/she may contact a professor in regard to covering the syllabus material, when the need arises. At the end of the semester, the student takes the examination, most commonly in a test form, also performed online and writes an independent final paper defended orally.

Depending on whether the student has chosen a certified or a non-certified program, upon completing the study program, he/she will or will not be awarded a diploma. However, what is most important to many students graduating from virtual faculties is the fact that the diploma most often does not state the type of studies, that is, whether he/she studied online or face to face. The reason for this lies in the fact that these two methods of studying are regarded fully equal and no distinction is being made among them in terms of employment.

In spite of the fact that virtual faculties have been in existence around the world for about ten years, not much research has been conducted showing to what extent the knowledge acquired in this way differs to the traditional knowledge acquisition, in respect to quality, pedagogical methods used, and other matters.

Furthermore, there are still doubts about what is considered e-learning, what the e-learning process is, and what has to be included in order to create a quality online study program. Bearing this in mind, in this paper, we will endeavor to provide an answer to these questions, based on the latest research conducted in the past several years in the world, as well as first-hand experience and personal research.

## **2. THE SPECIFICS OF E-LEARNING: ADVANTAGES AND DISADVANTAGES IN COMPARISON TO TRADITIONAL LEARNING**

As far as e-learning development is concerned, American faculties, which have more than a decade long tradition in this field, have made the biggest advancement. Firstly, this fact may be explained by great investments being made by the American state for online studies development and encouragement of professional education for e-learning activities. About 13 billion US \$ has been allocated from the American budget for this purpose.

However, such big investments into e-learning follow significant research, the purpose of which is to determine the policies of its further development. In accordance

with this, recent research has been conducted in the US, covering a sample of 990 educational institutions, organized by Sloan Consortium.

The aim of this research was to find the answer to several crucial questions, as follows:

1. To what extent does e-learning improve the process of knowledge acquisition, by juxtaposing this educational model with numerous other models?
2. What are the prerequisites in terms of the technical infrastructure and logistics for e-learning?
3. What models of e-learning are in use and which ones give the best results?
4. To what extent is the role of the professor-instructor modified in working with students who opt for this model of education?
5. What are the costs compared to the profit earned at faculties organizing Internet studies?

Based on the results of this research, which is considered one of the most comprehensive and recent of this kind in the world, indicative data for this form of education have been collected. The most significant indicators include:

- It is only 18.7 % of all educational institutions in the USA that do not offer some of their study programs via e-learning.
- About 2.4 % of state educational institutions in the USA have not included this kind of knowledge acquisition in their educational models and have kept to the traditional forms
- Students at more than 90% of virtual faculties are satisfied with this kind of education and knowledge acquisition
- All the faculties that provided an adequate training for the professors, as well as other members of virtual faculties, have managed to adapt to the new method of work in a fairly short time and achieve the desired results
- Educational institutions have made significant savings in terms of human and other resources utilization, and thereby have increased their profits.

For example, at the Wisconsin-Madison University, 172,000 US\$ have been saved, due to savings in professors' time, who previously had to spend much more time in teaching sessions in order to cover for large groups of students; in addition, the number of traditional classrooms has been reduced, and thereby costs necessary for their use.

On the other hand, by designing an online program, many faculties, which previously did not have their business site, managed to save large sums of money for buying their business premises, an example of which is the University of North Carolina in Charlotte. According to their estimate, they managed to make a savings amounting to more than 5 million US\$, by not making investments into business premises.

- Furthermore, the number of students has increased, and a higher study efficiency has been achieved. For example, some American faculties have, owing to varied and high quality programs, succeeded to reach the number of 800,000 students showing further growth tendency.

- E-learning has enabled a higher degree of interactivity among professors and students and easier study material coverage in both undergraduate and graduate students. Furthermore, professors and assistants have developed their students' critical thinking and have given them more freedom in their choice of discussion topics and mutual exchange of ideas and information and knowledge expansion
- Students have shown a great adaptability to this kind of studying. Namely, e-learning has proven to be a very popular and acceptable way of studying, owing to its flexibility, as well as its higher degree of innovativeness in terms of introducing new and contemporary programs in comparison to traditional faculties.

In addition, many faculties that have opted for e-learning have started implementing various software packages supporting online learning, and applying different studying modalities. University of North Texas (UNT), for example, which started offering online and onsite courses in 1995, has significantly improved its activities since their introduction. Namely, by using video conferences they managed to link all the locations in a radius of about 40 miles from the University's headquarters.

Since 1997, this University has developed a Center for providing services to other faculties for establishing and developing online study programs. The Center combines the technological resources with expert consultancy services.

Beside this, this University had about 29,000 students in 2003 attending more than 4,000 online courses. The University of Phoenix also offers e-learning courses for more than 140,000 students earning a clean profit to the amount of about 5 million US\$ annually. This University enrolls 500 students from more than 53 countries worldwide, on a monthly basis.

- Many prestigious world universities have long withstood this kind of education, such as Stanford, yet despite this, even this University has not resisted to this new way of education, and in 2005 it also offered this kind of studying. It has entered the market with the highest quality world programs in e-learning as well, and has thus maintained its decades long standing high rating.
- Research has revealed that both students and administrators believe that the quality of e-learning responds to the traditional teaching methods in terms of quality. According to this research, three quarters of leaders in state faculties and universities trust Internet-based learning quality to be the same or even better than face to face learning. This research has also shown that universities offering online studies have so far had more than 2 million students and that the number has been increasing by 25% on an average every year.
- Compared to traditional ways of studying, study efficiency is increased in this way, as a result of continual learning, so that studies may be completed in a time frame shorter than assigned.

- This kind of studying also leads to a higher quality of professors' work, as they have to observe students' work on a daily basis. Furthermore, at the end of each semester the professor's work is always evaluated by both students and the supervisor, who oversees all posts, comments, questions, and overall activities and the professor's work quality. Unless he/she receives good grades and recommendations, it is not possible for them to carry on their work and sign a new contract with the faculty. This highly motivates professors to invest into their knowledge and their work with students.
- Estimates show that online faculties earn 17.6 billion US\$ annually, which is four times more than traditional faculties.
- Although the popularity of online learning has been on an increase worldwide, many traditional faculties use extensive e-learning, i.e. they use it as a supplement to traditional ways of learning, and few are willing to organize exclusively independent online programs.

This is particularly characteristic of faculties with the highest rankings. They are reluctant to abandon the traditional teaching ways and are not so keen to invest money into new programs and new technologies required to support online programs.

### **3. WOMEN AND DISTANCE LEARNING**

The changes in women's educational and career attainment may have multifaceted characteristics. Women might have increased their enrolment in colleges compared to men, but women may still differ in terms of the types of subjects in which they are enrolled. Distance learning is becoming increasingly attractive for women, as shown by some research studies. Namely, more than 60% of those over 25 years of age and female opt for this type of development and education in the world. The reason for this lies in the fact that this method of learning offers numerous advantages. Among the most prominent benefits, the following may be pointed out:

- the flexibility of the learning process (students study at the time most convenient to them);
- achieving a better balance between personal and other commitments (they may spend more time at home with their families);
- minimizing costs (both time and money savings are made);
- a deeper sense of self-fulfillment (acquiring relevant and useful knowledge and achieving professional goals).

Furthermore, women at a certain age, over the age typical for students (18-22 years of age), consider virtual classrooms to minimize the embarrassment and alienation factor (Capogrossi, 2002). In addition to these advantages provided to women by online studying, it also enables women to choose a certified course, offered by more than 90% of faculties in the world (Radovic- Markovic, 2007).

Accordingly, women are given the opportunity of choosing some of the programs from a broader range, the ones that best suit their professional interests and goals, without the requirement to move geographically. In other words, women are no longer limited to the local educational institutions, but have at their disposal a more comprehensive choice of educational programs offered worldwide.

Also, studying over the Internet enables women permanent development thus reducing the educational gap in comparison to men. At the same time, the social status and life quality of women are being improved. Higher qualifications enable women to contribute more to their community.

In her research, professor Radovic-Markovic tried to measure the role of online learning and how much it is accepted among students and entrepreneurs in Serbia.

She asked respondents the following questions:

- ✓ *What do you think about online learning?*
- ✓ *What do you think about virtual professors?*
- ✓ *What is the interaction between students, students and professors?*
- ✓ *Does new technology isolate students from teachers?*
- ✓ *Do you prefer Online Learning than Face-to-Face? Why yes or why not?*
- ✓ *Does Gender Matter in Online Learning for entrepreneurs?*
- ✓ *What are Online Learning Outcomes vs. Face-to-Face?*

### 3.1. Methodology and Few key findings

- ❑ Interviews conducted from 54 people: 34 women and 20 men
- ❑ Interviewees were individuals between 18 and 30 years of age
  - The majority (68%) think that online learning is great as an new alternative for learning. It's not for everyone, and obviously every subject.
  - Most respondents (95%) say that computer literacy is the most significant for online studying.
  - Women choose some computing courses when offered in combination with other disciplines that emphasize social issues and computer applications. At the same time they think that online studying and virtual faculties are not so much popular in Serbia because the lack of computer literacy, especially among women.
  - Anytime, anyplace" nature of online learning suiting female students more than male where women are fitting their education in among their regular work was the opinion of 70 % of respondents (female and male together).
  - Men and women respondents (45%) course favors women and older students who seem more motivated, better at communicating online and at scheduling their learning.
  - The half of 54 respondents don't like to have discussions with other students and teachers that they can't see.

- The great amount of interviewees (63%) haven't heard about online courses for entrepreneurs and are not sure how virtual faculties work.
- There are lots of reasons for taking online courses; it was opinion of 30% of respondents. They selected low costs of online learning as the major reason. However, the most significant contribution of online programs particularly to women is the opportunity for working at your own pace and at your time schedule.

Because Serbia doesn't have longer experience with online studies and virtual faculties, there is a lot misunderstanding how do they work and what are they benefits for students as well as professors. If they become more popular in the near future and commonplace, people could much real consider pros and cons of them.

#### **4. PERSPECTIVES OF E-LEARNING**

Throughout the year 2006, a research has been conducted (Pulichino, 2006), exploring the future trends in e-learning. A questionnaire was made, covering three groups of subjects:

1. higher education institutions
2. corporations
3. e-learning providers

They were offered a multiple choice form, dealing with several aspects of e-learning and its future use. One of the most important questions referred to the development perspectives of e-learning. To this purpose, subjects were offered the following responses:

- e-learning has a big future and will continue to grow
- e-learning will show decline in its importance in the years to come
- e-learning will not develop in either of the two ways

As many as 75% of the subjects circled the first proposed answer, i.e. that e-learning has a big future and that "it will continue to grow", whereas 16% circled the second answer that "e-learning will show decline in its importance in the years to come". During the year 2006 the same survey was conducted showing that the number of those believing that "e-learning will show decline in its importance in the future" has gone down, while the number of those believing that "e-learning will continue to grow" has remained stable" (75%).

With regard to perspectives of e-learning, subjects were also offered several items to choose from, such as "significant increase", "moderate growth", "same rate of development", "moderate decrease", "significant decrease", and "I don't know". In this case, about 43% of all the subjects answered that there will be a moderate growth of e-learning in the future. Additionally, opportunities for extending the use of e-learning to other domains, where it has not been applied so far, such as employee, customer and business associates training, have been considered.

According to the findings of this questionnaire, we can see that 38 % of all subjects expect "moderate increase in the application of e-learning in other spheres of its application", whereas 20% expect "significant development". The development of e-learning by means of complex media (simulation models, interactive algorithms,

databases, flash and streaming tapes) was also covered in the questionnaire. In this respect as well, subjects expressed their high expectations regarding the application of the latest state-of-the-art media (48%) in the near future.

Further research can continue to explore how and when online instruction is most effective. For instance, additional investigation should look at motivational factors affecting students in taking elective and required courses in traditional, online, and blended approaches to instruction.

#### **4.1. What should be changed for supporting online learning in Serbia?**

According to our research it is necessary to obtain conditions as follow:

- Flexible environment to support 21<sup>st</sup> Century Learning
- Forming an international learning network
- It is necessary to invest monies in developing a cyber infrastructure.
- Building a more inclusive distance learning environment in Serbia involves making technological choices built on flexibility and an ability to respond quickly to changes in constantly evolving technology and informational resources.
- Integrate existing administration, management & learning tools
- Collaboration, involving teachers, mentors, and instructional designers who truly represent hard to reach learners
- Start small, grow fast

### **5. CONCLUSION**

The development of modern technologies, the Internet in particular, on the one hand, and the changes in ways of managing, communication and work organization in enterprises, on the other hand, have in the recent years resulted in changes in the kinds of knowledge and ways for its acquisition.

Having in mind that the Internet has found its way into daily life and use, both in various domains of entertainment and business transactions, the use of the Internet in the education sphere is naturally expected. Namely, in the sphere of education, the Internet offers a global platform for information storage and its presentation in textual, visual, graphical or any other form. It also serves as a means of synchronous and asynchronous communication (Keegan, 2000).

Taking into consideration the above mentioned statements, it is logically expected that online studies will grow in popularity, and that the network of virtual faculties will keep spreading in the future. Further to this, Internet education will soon become the dominant form of education worldwide, which is to reach its peak in a few years.

At the same time, it is to be expected that the methods of work and communication among students and professors will continue to improve and that efforts will be made in increasing the quality of this kind of studying. The extent to which a country will become part of the global educational Internet network, will, to a

great degree, depend on the degree of utilization of new Internet technologies and the level of popularization of this form of education. Namely, many world prestigious faculties offering distance learning studies, engage famous people studying there as the best promoters of this way of studying.

This form of studying still does not have a large number of advocates in Serbia, since, in fact, there are no real Internet studies. In other words, Internet education is even now considered as some form of correspondence studies. In addition, many faculties yet lack the relevant software and accompanying equipment, as well as adequately trained staff, which would use them in their work with students.

Furthermore, the development of Internet studies is still lagging behind in this country, as it is still at the bottom of the ladder among countries in terms of Internet users (about 20%). A factor further aggravating Internet studies development here is the fact that people's beliefs here change very slowly regarding any kind of novelty, especially in education.

In compliance with this, most people cannot imagine a "classroom without walls", nor a completely different way of studying. For a large group of people, it is unimaginable not to go to the faculty and not to attend lectures, as this would make it impossible for them to feel as academic citizens.

The number of those among them, who are skeptical towards the quality of thus acquired education, must also be high. As a result of this, although the Ministry of Education has made provisions for Internet education in the Law of Education, it is still in its infancy and has not received full media promotion.

This is why little is known about this area, which is approached with a certain grain of salt and suspicion. In order to change the existing prejudice, it is necessary to point out to the general public all the advantages of online education, so that both future students and their prospective employers could get the real picture. In this way, in times to come, this country as well could enlist among those who have developed a new and very profitable branch of economy, by using a modern and flexible form of education.

This does not mean that faculties with "classrooms without walls" will fully replace traditional faculties. They will continue to exist and to attract those students who prefer classical learning models, yet they will also have to change in accordance with the needs and requirements of contemporary education. In keeping with this, it may be concluded that virtual faculties and their expansion will have positive consequences and impact on innovating traditional faculties work as well.

It may reasonably be expected that in addition to high profits earned by faculties, students will be the ones to enjoy highest gain as they will get the education to their order and needs, as well as suited to the requirements of their future job positions. This is further corroborated with the fact that more and more employers do not distinguish between those students who have graduated from Internet schools and those who have graduated from other schools in their recruitment decisions.

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