*ORIGINAL PAPER*

# VIRTUAL COLLABORATIVE COURSES IN ROMANIAN HIGHER EDUCATION - A CHALLENGE FOR STUDENTS

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***Abstract.*** *The Internet became a real member of each family in the past years. Now, from a very early age, the children are drawn into social networking media websites, search engines and information portals, and the young generations seem to be more involved into the interaction with the virtual environment. In education, e-learning is not a novelty, and the existed virtual courses - that answer to real demands - become more familiar to students, step-by-step, than the books from university libraries.*

*This paper tries to illustrate the challenges met by the Romanian students involved as participants and learners in the virtual collaborative course "Designing Technology-Enhanced Learning", organized in the frame of the European LLP-KA3 project: "CoCreat - Enabling Creative Collaboration through Supportive Technologies" (code 511733-LLP-1-2010-1-FI-KA3-KA3MP). Students & teaching staff from 4 European countries (Finland, Romania, Estonia and Norway) were involved in this course that had as objective the introducing to students of concepts, theory and approaches related to designing Technology-Enhanced Learning systems and tools. During the course, the students formed mixed groups and worked on the specified tasks, collaboratively. In practice, they worked together to build a virtual course (starting from zero), using related working environments (Second Life, Moodle Course Management System).*

***Keywords:*** *E-learning, social networks, education*

## 1. INTRODUCTION

At present, more people become focused on e-learning technology - a concept that is known everywhere. Students and teachers around the world are working on e-learning platforms, such *Blackboard*, *WebCT*, or *Moodle*, which integrate various facilities [1]:

- Discussion Forums;
- Wikis;
- Weblogs;
- E-portfolios;
- Shared whiteboards;
- Video conferences;
- File sharing;
- Chat.

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As example, *Moodle* is one of the most popular platforms, the number of users being count over 68 million people worldwide [2].

## 2. E-LEARNING IN ROMANIA

In Romania, it can be said that e-learning is about to be implemented at a medium stage. Its introduction should not be optional, but a real priority. Why? Because the Internet has greatly changed the world, and it seems that the education at a whole, does not follow this change, clearly. So, we try to wonder why do we notice a decrease of the the level of education, and one of the reason could be allocated to the extremely low interest, expressed by students, for the traditional way of studying and learning. They really enjoy to operate together with technology: social networking, media portals, video portals, search engines and so on. Because the e-learning is laid aside, the Internet has become a "toxic" environment for the students up to 20 years old. In spite of this, it is clear that the teachers must encourage activities related to study with the help of the Internet, mostly through collaboration.

## 3. ANALYZING THE RESULTS OF THE BACCALAUREATE EXAM VERSUS THE MOST POPULAR INTERNET SERVICES

An example can be illustrated between the low level of interest for e-learning in Romania, and the lower graduation rate at the Baccalaureate exam. In this sense, in the last 5 years, many services have advanced over the Internet. At the same time, the rate of the promotion of the baccalaureate exam decreased enormously (in 2012 was half compared to 2002, Fig. 1) [3,4]. But, what is the connection between those facts?

Let's see the evolution of the promotion rate at the national baccalaureate exam in 12 years (2001-2012), under the umbrella of statistics, in relation with the trend of the most influential actual Internet services (in terms of correlation, Table 1)[5].

As shown, the strongest correlation exists between the graduation rate of BAC and the social networking. From 2008 to 2012, there have been many changes in the philosophy of social networks. Interest for *Hi5* has declined, but greatly increases the interest to *Facebook*, *Twitter* or *Google+*. The popularity of those platforms (in 2013) is expected to be stronger. Young people put great emphasis on its own personality, but also on communication.

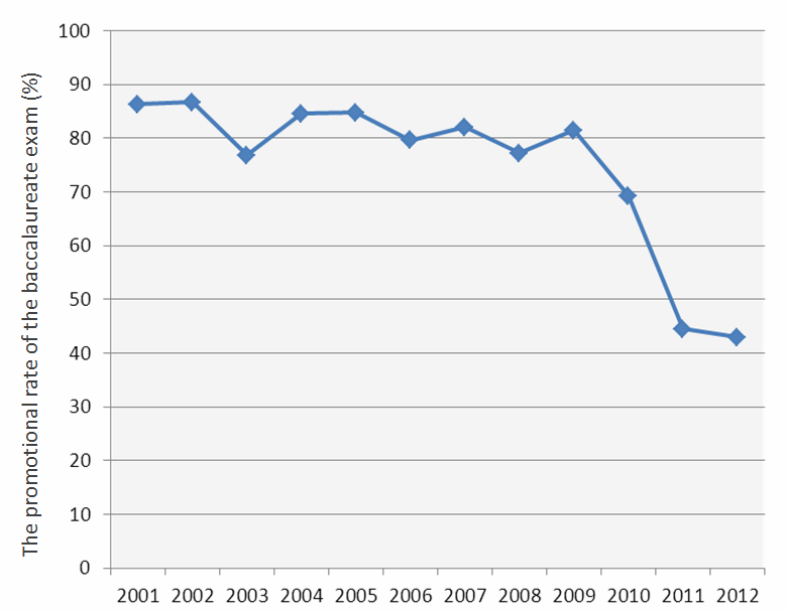


**Figure 1. The evolution of the students' promotion rate at the baccalaureate exam, in Romania (2001-2012).**

**Table 1. Correlations between the graduation rate of the baccalaureate exam and various popular Internet services today**

| | Social Networks | Video Portals | Search Engines | News Websites | Online Games |
|---|---|---|---|---|---|
| Baccalaureate Promotion Rate | -0,957* (N = 4) | -0,744 (N = 7) | -0,899** (N = 9) | -0,298 (N = 6) | -0,33 (N = 9) |

* $p < 0.05$, **$p < 0.01$

Social networks have an increasing pronounced impact on young people - approximately 83% of young people are surfing the Internet [6]. According to the website *searchenginewatch.com*, in 2012, there have been 1.43 billion social network users [7], of which 16% are young people between 18-24 years (Fig. 2) [8].

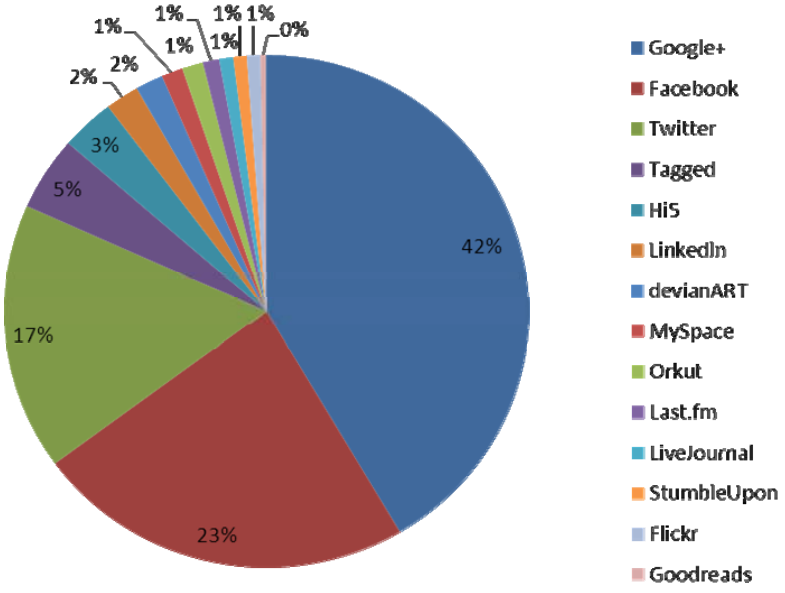


**Figure 2. The most used Social networks by people between 18-24 years old.**

It can be said that there is an important correlation between the decrease of the baccalaureate exam promotion and the development of the search engines. Here, the explanation may occur in a very simple way. As the statistics of *clicks on search* results show - which include all the search engines -, most of the clicks are made on the first 10 results (practically, on the first page). There occur 96% of all clicks (Fig. 3). In fact, the first three results involve around 70% of the clicks [9]. But, due to the search engines marketing development, usually, the top 3 results are often advertisements. They can be related to different themes, but can lead to the loss of the visitors. Consequently, it come a problem related to the indecision of students, when looking for information / documentation. For example, if a student is looking in a search engine for the text "biology textbook" to get the information on-line, it is likely to find among the first results "at the high school *X*, *Y* has stolen a biology textbook" and access that page.

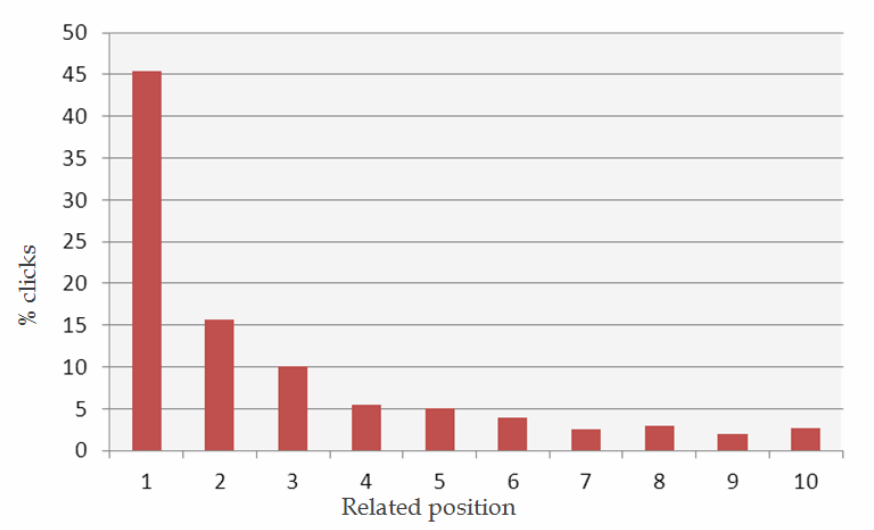


**Figure 3. The number of clicks according to the results page position in the search engines.**

## 4. DISCUSSIONS

Generally, the search engines and social networks are used by a very particular segment of the Internet - especially young people. It is known that to solve a task, the students often make appeal to the Internet. If for a particular request it is not found any relevant information, the search engine will provide no relevant results. In this way, the student will receive information that is not needed or an irrelevant one. In the case of the social networks, the students often use them for exchanging information with colleagues, or even with a competent person able to solve a specific task. Sometimes the tasks require creativity; even it is difficult to build a creative solution through many messages expressed through a social media site. But, in many cases, if such people do not exist or answer in the social network environment, the student does not get the answers.

On the other hand, comparing to other segments of Internet users (English, Chinese, Russians), the Romanian sites are poor in scientific information. In some cases, there are not websites with information in a particular field (especially Science). Also, it is very little

literature that can be accessed for free. Without a clear preparation for raising the interest for the subjects discussed in the secondary school and also without minimal necessary materials that can be accessed from Internet, it is normal for a student to be easily attracted by other topics.

But, by sure, there are solutions! The situation could be changed in a better way, if the responsible educational actors take the necessary measures, by implementing *learning management systems* (*LMS*) on a large scale, in secondary education, at least. In this way, encouraging the creation of weblogs, using social bookmarking or integrating social networking in the educational process could be feasible solutions for raising the interest of students to learn. If in the coming years, there will not be encouraged informative websites and thematic forums (educational courses), the situation can be the same (or worst than today). Although the social networks are not dedicated for education, they can help a lot in the development of the education and in various e-learning contexts [1].

Related to e-learning, although it was designed specifically for distance education, it is absolutely necessary a real integration with classical education at present. It is not just "a fashion", but e-learning presents many positive valences, as follows [1]:

- Cost-effectiveness;
- Enhanced responsiveness to change;
- Consistency;
- Timely content;
- Flexible accessibility;
- Providing customer value.

Of course, some disadvantages of e-learning have to be mentioned [10]:

- Lack of immediate feedback during the asynchronous study;
- More time for the teacher to prepare the course;
- It is not comfortable for some people;
- Can cause confusion, frustration.

However, e-learning can enhance individual and collaborative cognitive activities, especially when students are working as a group, but in this case, some specific features have to be taken into account [11]:

a) technology can act as a communication tool which allows interaction;

b) technology can act as a source of knowledge and resources to represent and develop ideas and reflections;

c) technology can act as a mediation tool to help students focus on the issues discussed;

d) technology can act as a visualization tool to objective thinking, providing opportunities to reflect on their thinking by writing and submitting individual achievements.

## 5. "DESIGNING TECHNOLOGY-ENHANCED LEARNING" E-COURSE

The on-line course "*Designing Technology-Enhanced Learning (TEL)*", having 14 weeks duration, was organized in the frame of the European LLP-KA3 transversal project: "CoCreat - Enabling Creative Collaboration through Supportive Technologies" [12], coordinated by the University of Oulu. The target group of the TEL course involved students from four EU countries: Romania, Finland, Estonia and Norway. The students were divided in twelve international working groups, having general tasks but also particular ones.

The declared objectives of the course were focused on [13]: making students familiar with the key concepts, learning the theories and approaches of designing technology-

enhanced learning, developing practical skills of setting up, implementing and evaluating the use of TEL systems and tools, designing of a prototype of a TEL course.

The course was implemented mainly through *Moodle* and *Second Life* environments, but to achieve the objectives was using, complementary, other platforms according to the knowledge of students.

Each group of students had a tutor who coordinated and assigned the tasks to the team. Fig. 4 illustrates a mode for assuming roles and activities by the members of a student group [14].

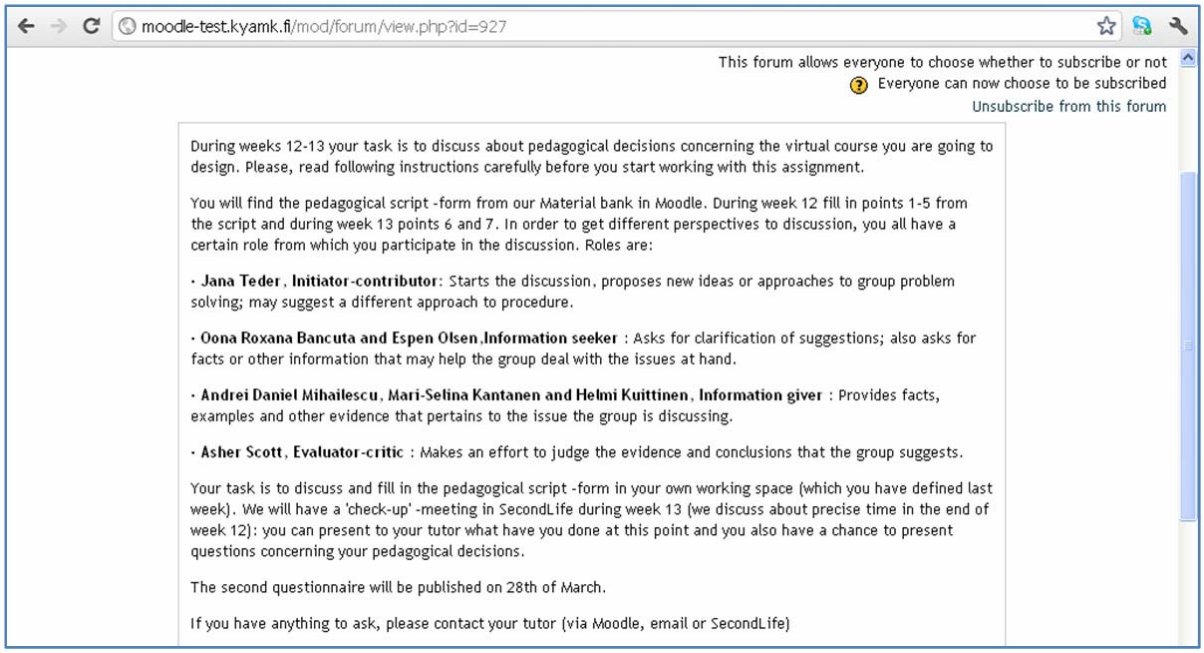


**Figure 4. An example of assuming specific roles in the students' working group, in the "Designing TEL" course.**

The official language of the working groups was English. Thus, this influenced the auxiliary learning English through communication with other students.

To perform the tasks as well, each team has used various means of communication and work: *Skype*, *Second Life*, *Yahoo Messenger*, *Moodle*, *Facebook* (for communication); *Google Docs*, *Blogger*, *LiveJournal*, *Wiki*, *Google Sites* (for work and presentation); *Twitter*, *Facebook* (for popularizing results); *Deposit Files* (for file sharing).

Some teams have produced exceptional results with high efficiency. The fact that they worked with various instruments, made to better understand the world of Internet and enrich the process of searching of the information, or even studying the basic parts of the programming languages (*HTML*, *CSS*, *PHP*).

It seems that the most preferred working environments was *Wiki*. The possibility to change the content of the pages by everyone who has access to the page, proved the major convenience for students. In addition, during the course, social networking and search engines have produced good effects on the collaborative work.

## 6. CONCLUSIONS

Today, the Internet is more focused on communication. In this respect, to be successful in the future, the education must use this actual Internet aspect in its favor. It seems to be difficult in the first stage, but the changes will be for the better, by sure. In fact, it is clear that it is not possible radically to pass from the "classic rooms" to virtual study, but at least this will change the interest for study, but also the quality of education.

For the Romanian students involved in the "*Designing Technology-Enhanced Learning*" course, it was practically the first experience. In this way, they met a real challenge, but the course was able to guide the students for interacting with various environments, in order to communicate and collaborate, and finally, to build the suitable solutions when solving their tasks.

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