Article The Use of Social Networks for Elearning Improvement

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ABSTRACT | One of the most advanced current technology that is increasingly used in e education, is social networking. We want to point out that e learning platforms tend to be closed and inflexible for users. Its use is limited to the settings defined by the administrator. The role of the student is passive. Passing a content often does not provide consulting teachers in response to the materials under study. This leads to the creation of an environment, which is not interesting for students. Important characteristics of online social networks, such as content sharing, collaboration and criticism catalyze the formation of active and stimulated environment for students. Our research is held, through an experiment at ICT College, in order to define main social networks that can be used for e learning improvement, and to show that social media tools (wikis, blogs, video sharing, image, video meetings and video conferences) are a powerful tools that can be used instead of classic e-learning platforms.

Keywords: social networks, e-learning, innovations, Twitter.

1. INTRODUCTION

Learning is an activity with the aim of improving knowledge, skills and abilities. It is a synthesis of formal, non-formal and informal knowledge (unplanned teaching and learning through everyday activities). Formal education implies the existence of an educational system that is organized and managed by the state / government institutions, regardless of whether the state is the founder or founders are private individuals. Under the informal education we mean the kind of learning that is developt and cultivated outside the formal, and obligatory institutional education, and within alternative structures where youth organizations are the main holders.

Taking part in these activities, young people acquire knowledge and develop different kinds of skills such as: communication skills, leadership and menagement skills, intellectual understanding, as well as successfully addressing various types of problems.

Humans are social beings by nature. So it was before the creation of the Internet, when they hung out in the communes, build contacts and friendships on the streets, public places, markets, showrooms. Today, nothing has changed except that most of us have a virtual place that represents our identity from the analog world, and in the network with others their communication dynamics creates virtual sphere.

The rapid technological development, as well as the expansion of the Internet in the last 20 years have influenced almost every aspect of human society. Easy and quick exchange of information, and the availability of large amount of data on the global network have made the Internet an indispensable factor for development of each segment of society (Nakamura, & Chow-White, 2013). Under the influence of new technologies and the opportunities offered by the global networks, there has been a change in communication between people. Existing forms of communication have received their electronic equivalents. Social media is a general term that covers a large number of platforms and applications that allow users to communicate, collaborate and share information. Implies the existence of web tools that can be easily accessed, which are simple to use, which can be used or generate specific information like on-line response or reaction to what is happening in the life of an individual (Tarik & Karim, 2012).

Social networks are important because they build relationships and connections in different contexts. People engage socially, share information, ask for validation and recognition of themselves in the group, the approval of their own status and it happens in a very easy way. The present form of social networks provide numerous options, concerning the choice of communication practices, community involvement in the network space, privacy and information control. Most social networks permit the formation of groups of specific interests. Some can be used for professional development, some for educational purposes, and some for both (Garrison, 2011). In such environment the process of learning and education go through changes and they adapt to emerging trends (Bates, 2005).

Along with the development of new web services and tools are examined opportunities and ways in which to implement social media into a system of knowledge transfer. There are some questions which kind of media would be most effective and gave the best results in the learning process, how to adjust and get closer to end users (Clark & Mayer, 2011), (Dalsgaard, 2006).

This paper presents the analysis of the social networks functioning in the capacity of e-learning environment. The aim of this paper is to show that the social networks are good support for e-learning in terms achievement of positive learning results.

2. POSSIBILITIES OF SOCIAL MEDIA IN TEACHING PROCESS

New trends in education indicate a significantly changed role of teachers and students in relation to the existing one in our schools. The teachers should play the role of coordinator of activities and not just the speaker, while students should be active participants in the classroom and not just observers. This means that students need to acquire certain skills themselves, under expert supervision and guidance of teachers. Thus developing creativity, ability to solve problems independently and respect



the individuality of students. The group as well as individual work should be forced, which is very conducive to the application of information technology (Vugdelija & Milanović, 2009).

Human - Computer interaction is not just a mechanical relationship. In this relationship hypothetical interface mediates, "interface between computer technology and cognitive psychology," which is a complex interaction between human cognition and computing environment (Kumar, Helgeson & White, 1994). The student develops skills that can be applied in solving the real problem situations (Helgeson & Kumar, 1993).

Pedagogical basis for the application of the tools of information and communication technologies (ICTs) until now were already established pedagogical theories, most of them famous constructivist theory of learning, because many other theories were based on them taking the good examples of learning on the Net, which combines the powers of the Internet to provide a wealth of information from various sources, to be the medium for the publication of opinions and information of every person and the ability to use the Internet as a communication channel to create a collaborative learning groups. Many educators, however, find that these pedagogical theories were emerged before the advent of the "digital age" and that they don't correspond to the changed profile of the student in terms of learning and communication technology (Prensky, 2001). They consider the question of socialization and individualization of learning conservatively, without substantial understanding of how the process of socialization changed through the use of the Internet as a means of communication.

Learning is possible through constant construction of "network " society, capacity to learn is more important than actual knowledge, the starting point of learning is not the content but the contact with people, groups, nodes in learning, knowledge given by a group rather than an individual - this is the basis of which a new educational theory called konektivizam is built (Siemens, 2005).

The reasons and ways to use social networks in e-learning education are manifold. Social media encompass a variety of tools, applications and platforms that can provide a wealth of resources and materials to support all courses (Janjic, Milicic, & Spariosu, 2012).

It is possible to use all the resources offered by social networks: discussion forums, discussion, comparison, collaboration, exchange of views and networking (Oki, Rojas-Cessa, Tatipamula, & Vogt, 2012).

The systems of interactive learning can be achieved through the use of following media:

- auditory (interactive technology using telephone lines, audio conferencing and shortwave radio signals, tape recorders, and radios that belong to passive audio devices because feedback is missing or is received in the designated time)
- visual (still and moving images combined with interactive auditory communication, one-way or two-way video with audio communication)
- printed materials and electronic mail which can provide feedback in real and most often in the designated time
- computer interactive communication (electronic communication channels for interactive communication in different locations around the world that are used to monitor the lectures, students practice for scientific meetings, and promotions).



Twitter as a social network service for a short and efficient exchange of information can have a positive impact of education stakeholders because of some good features. Firstly, using Twitter's can engage education in terms of sharing best practices that teachers used as a tool of analysis and object analysis. It changes the dynamics of the learning is done to connect people who would not have otherwise met. Learning is great fun and the students have a better idea of what is really going on in courses. This service allows a quick announcement and its settings are limited to only 140 characters, which really focuses the attention. Also, a student's record is kept in conversations on a particular topic.

Virtual aspects of education are well represented in Twitter messages. This can be useful for professional development and construction of educational community. Teachers themselves can determine how students will be available, and can write lecture notes.

If a teacher wants students who were with him on the course track to continue the conversation, or that this issue is at the top, he can use the hashtag # with the name of the course topics. Let's say you talk about wireless access networks. Hashtag might be # WiFi. Then everyone can follow the hashtag and stay on the latest information. When there is a hashtag, a teacher can use Twitter to provide additional content after the course. It can be used to get answers from their students as well as feedback. They may add some thoughts or tips they have learned. Alternatively, teachers can create an account or Twitter specific for certain course that students can follow, which makes it easy to find each other on Twitter.

There are some extras of social network Twitter that increase the functionality of the network so as to make the microblogging can add media content, questionnaires, longer texts, and the like. Twournal is one of them. Fans and Twitter users with this plugin can create journal of their tweets or Facebook messages. Journal or diary is to be figured out parole because of tweets can make the right e-book in PDF format. It is logical that this service registration is done by connecting tvit- accounts, but cannot create a brand new account. With tweets answers, images ... can be used. If you want a large number of pages of the diary, then you must take one of the paid version of this tool.

If Twitter is used in professional development or teaching, work process can be documented by selected tweets. Then, there is Twiends to connect people by interests. Online, anyone who wants, can advertise his Twitter lists or other offers. The ultimate goal of this promotion is the increase in communities for special services for highlighted promotions. If Twitter is an important part of a private educational network, then certainly there is no reason not to increase the digital community and to use this network as a way of promotion.

Twibbon is the addition, where Twitter allows campaigns and expansion of community through automatic retrieval off the similarities or any other parameter that determines the service. If the educational institution has Twitter- account, in this way it can easily find potential partners in a project, influence some ideas, spread the news about an action, etc.

Twitcam is a great tool for live video via Twitter for video communication with friends on Twitter. In education, this supplement is useful for giving short instructions, quick agreement with the group. A similar tool is the Twitpic to share pictures and videos in real time. This feature is when he wants to be with a group of students or colleagues quickly share original media content from the site. For example, someone wants to convey colleagues' atmosphere with a professional meeting.



TweetChat is a tool designed for a chat via Twitter, but can be used independently, creating a stand-alone account, rather than linking it to Twitter.

Twiducate network is more educational in its nature, where teachers can post a task or share ideas. Only teachers and students can access posts in virtual classrooms and create a safe learning environment. Twiducate is a social network of closed type, similar to the classic Facebook, with control of the professor-administrator, created in 2009. In addition, it is free and its use does not require any installation.

3. THE USE OF TWITTER IN ICT COLLEGE IN BELGRADE

In ICT College in Belgrade, during the third trimester of the school year 2013-2014, were used social networks in Access networks course, on Internet technology (IT) and Telecommunications (TK) programs of study. There were 96 students who attended the course on that year. They could be part of the pre-exam requirements through voluntary reporting of seminar work, if they wanted to.

Topics seminar papers were prepared in advance and included various aspects of Access networks. Students on this occasion divided into smaller groups of up to a maximum of 5 students per group, with each group assigned a special topic seminar paper. Students have chosen social network Twitter as a platform for the exchange of the necessary materials to create essays on a given topic, such as pdf files, videos and pictures and it was an innovation in the development of coursework. On that occasion, professor created a special account that was closed in character, exclusively for students who have chosen this subject.

Students had the opportunity to use all available tools that Twitter offers. First they themselves within each group organize and share tasks with each other, in order to successfully do this essay. Students are themselves inflict the pace of seminar work depending on other commitments that were in this trimester. They periodically as necessary to include the Twitter on a daily basis or less frequently, asking pieces of work that have been done up to that point, leave comments, put like on successfully made parts of the work of other students, ask questions, give suggestions to each other and exhibited the existing problems.

The role of the professor was to the three pre-defined terms throughout the week (Monday, Wednesday and Friday from 18h to 20h) advertised on Twitter and to guide students toward successful completion. Professor could with appropriate comments in a timely revised each group, put additional materials if needed and include on chat or through video streaming to communicate with students in order to resolve any problems.

In order to realize the objectives more successfully, utilizing the benefits of social networks, which are important when working in groups that have the same goal (Vugdelija, Savic & Knežević, 2012). The task of the students was to design a presentation with appropriate video presentation of about 10 minutes in which to explain to their colleagues whatever they were doing and what they learned. Their individual exposure consisted of a whole, which means that the students in the group depend on each other. Their presentations were supposed to be connected so that other colleagues can eventually gain a complete overview of the subject with which a particular group dealt with.



In the last week of trimester, when seminars were completed, students were able to see, comment on and grade essays other groups that are involved in this. Upon completion of the course survey was carried out among the students registered on the Access network, which is supposed to show the extent to which this innovation assist students in the learning process and the successful overcoming of the original problem.

The idea was to develop students' ability to manage information through teaching them the seminar paper. In the process of realization of the task, students should find the relevant resources and based on them to process a given topic.

The goals of using social networks in the teaching process were as follows:

- develop students' ability to move as quickly and easily find the necessary and useful information
- developing the habit of the students to use the Internet as an information source
- mastering the skills of working in a group that has the same interest objective
- to enable students to work improve existing skills and acquire new independent
- motivation of students to follow the technological innovations in the field.

Teamwork is very important for the later successfully perform tasks on the job, and the students during their studies very little luck with this kind of work.

One of the important goals is also the training of students to a clear and simple way of presenting knowledge. Public display in front of fellow students are also motivated to obtain information that will actually be used in the understanding of a given topic. Of course, the whole process was conducted under the auspices of the professor as a mentor group. You should have all of the participants groups working to help each other with make it clearer that the whole will be presented to their colleagues. Oral presentation of term paper should help students in subsequent public displays, such as the presentation of final exam, given that the knowledge test is performed mainly by writing to the colloquiums and exams.

Students during the preparation of seminar papers, found various sources of information and decided whether it was worth and appropriate material. Students in the group familiar with the material, evaluate the accuracy and relevance of Web resources, and trying to adequately describe the categorization and writing additional notes, which is in some way a qualitative analysis of resources, forcing students to analyze, classify and map the facts. Sharing this information with other students in the group is a constructive process (Grosseck, 2008). Students use a variety of tools to make the appropriate video material, which should be accompanied by their presentation of seminar paper, which other students can see and comment on.

4. RESULTS

96 students who attended the course Access networks, 56 of them (58.3%) came from the department of Internet technology and 40 students (41.7%) came from the department of Telecommunications. Upon completion of the course, survey was realized among students that was supposed to show the extent to which the use of the social network Twitter helps mastering the



seminar work. 89% of students aged 20-25 years. 90 (93.75%) of surveyed students are actively using the Internet connection.

On a daily base each student spent between 3 or 4 hours working on a computer (59%) and mostly in the evening after 9pm (64%). Most students used Internet for getting information (93%), as a means of communication (63%), and for entertainment and fun (55%).

Among students surveyed, 81 of them (84.37%) had previously opened an account on social networking sites, 76 (79.16%) on Facebook, 55 (57.3%) on Twitter, while 50 of them (52.02%) has opened an account on Facebook and on Twitter. 11 (11.46%) students had opened an account on another social networking site that is not Facebook or Twitter. 4 (4.16%) of the students had never used any social network.

64 (66.67%) students took the seminar work, where is 42 students from the study program Telecommunications (TK) and 22 students from Internet technology (IT). A total of 12 groups formed by five students and one group of 4 students. 45 students said they had no previous experience of collaborative learning.

It should be noted that 4 groups were formed exclusively by students from TK, 4 groups exclusively of students from IT and 5 group was formed by students from both study programs. All of them were assigned to different topics.

When asked how often students were active on social networking site Twitter in order to prepare their seminar works, 12 of them said 1 hour each day, 4 students said every day for 2 hours, 13 students were active every other day for 1 hour, 18 students participated three times each week for 2 hours in the same terms when it included a presence of professor, 17 students were actively once a week for 1 hour, see figure 1.





The next question was to what purpose students used social network Twitter in the seminar work. Student answers are shown in Figure 2. 21 student used the social network exclusively for the exchange of material, whether it was pdf files, images or video materials, 12 students in addition to the exchange



of materials, actively tagged and leaved comments on the pieces of work that their colleagues within the group had made and raised on the site.



Figure 2: Student activities on Twitter

8 students has regularly communicated with the professor over TweetChat, 6 students used the live video streaming communication by Twitcam. 17 students have commented and actively communicate with students from other groups with whom they shared experiences.

Students have used the basic and additional tools that Twitter social network provides.

Students were then circled one of the following statements:

- 24 of them agreed that learning is possible through the continuous development of a social network
- 5 students circled that the capacity of learning is more important than actual knowledge;
- 18 students agreed that the starting point of learning is not the content but the contact with people, groups, connections between learning content;
- 17 students believed that the group possesses knowledge rather than an individual.

When asked how long students need to complete their seminar work, 3 groups (2 groups from IT and 1 group from TK) have completed in a term of 4 weeks, 2 groups (1 group from IT and 1 mixed group) for 5 weeks, and finally 8 groups (1 group from IT, 3 groups from TK and 4 mixed groups) completed their seminar works for 6 weeks, ses Figure 3.



Figure 3: Time required to complete a seminar work



The final question was whether students were satisfied with using social network Twitter in educational environment for acquiring necessary knowledge: 55 students said yes, 3 students were not satisfied, while 6 students were partially satisfied.

5. DISCUSSION

To gain realistic insight into the effects caused by use of social networks in learning process, the results of the survey were analyzed, then checked the knowledge gained from the particular topics as well as topics that other groups exhibited and the subjective impression of quality exposure students did.

It has been shown that social networks can be useful to use in the classroom, although not easy to measure profits arising from the use thereof. Our students are still not digital natives, they are talking about the data that were not used virtual learning networks as they rarely use the computer for instructional purposes unless they have a specific task. They have little experience with collaborative learning, and learning on the Internet before the High School, but they are aware of how important it is continuous learning throughout life, although pay insufficient attention to the importance of the successful functioning of the group.

Let us mention some disadvantages in the use of social networks:

- The need for a constant connection to the Internet
- In our conditions, a big commitment of professors as mentors groups is required to coordinate their work.
- Lack of knowledge of foreign languages makes it difficult for students found understanding of Web content.
- There is a number of students who own Odrade part of the work without getting much of what he does the rest of the group
- In non-homogeneous groups can appear useless information distracting; which hashtag is more general and a larger group it is this phenomenon more common do.

One of the main advantages of this type of work is visibly greater motivation and active participation of students in the learning process. Almost all the students who participated in this project were positively enthusiastic about the use of social media in the classroom, as Twitter's, and Facebook, which has already been used and is still used for instructional purposes in ICT College in Belgrade. (Radosavljevic & Vugdelija, 2013).

Benefit of individuals who use computers for work at various locations (at home, at work, at school ...), because they are loaded label content accessible from any computer connected to the Internet.

It can be realized that the client receives the information in a message every time someone make a specific tagging for which the user logs on to the interested.

It is possible to form a library of useful information related to an object or program of study that will always be available to current students, and former which pritreba some information. Library to be



constantly updated and enriched with new and useful information that would allow students to and after graduation stay informed about relevant news in a particular area it is easy to lifelong learning for those who need it.

Based on the survey conducted after the course of the Access network it is clear that the use of the social network Twitter had a positive impact on the implementation of teaching. An interesting fact is that the students choose for Twitter, despite the growing popularity of Facebook. Their comment was that Facebook is seen as a network for entertainment, and Twitter them more suitable for professional use. It has been noticed and satisfaction of students who used Twitter for the first time, and the fact that they have tried almost all the basic and additional tools quickly and efficiently. The groups were composed of students with the same direction as quickly ended essay in relation to mixed groups, which is logical because students the same direction more easily communicate and share similar interests. It was noted that out of 64 students how many were essay with the help of social networking sites, 60 of them passed the exam in the first test period, the remaining four passed the exam immediately in the next period. GPA was at the same 8.76 which speaks of the great motivation of students.

It was deduced that students have got a positive attitude towards the usage of the social network in a teaching process. The stress was set on communication and exchange of information among students and their professors. This conclusion is encouraging and gives further guidelines on how to use and develop future capacities for using social networks.

6. CONCLUSIONS

The advantage of using social media in education is that it can provide surprisingly useful educational tool, giving students and teachers a simple way to communicate that goes beyond working hours and classrooms. Using simple tags, students in a simple manner can track information associated with a particular generation and specific training module.

Educational institutions must be in step with the rapid development of information and communication technologies in order to understand the way in which social networks affect children and young people, recognize their strengths and weaknesses, and thus educate students about safe participation in an online environment.

E-learning is not a replacement for traditional learning, but rather complement, the upgrade of the traditional learning. It should complement and facilitate the learning and information gathering. Promotes the progress of students so that they develop a need to learn something new, to explore the different areas, learn to handle large volumes of information that are available to them later on, at some point in your business or private life usage, to improve and to find their place in the business world that will suit their abilities, interests and needs.

On the other hand, this type of learning enable teachers to improve their way of transferring knowledge. In e-learning teacher's insight into the interests of students and it can use to improve their teaching with regard to the specific subject matter and as far as the mode of presentation of the same. This dynamic form of learning allows both students, and teachers training and canceling the failure so that in this way professors and students help each other in a certain way.



Example of use of the social network Twitter to continue showing good results, both in increasing students' motivation to actively participate in the learning process, as well as the quality of the knowledge acquired. Students positively accept participation on Twitter for educational purposes only and similar innovations and want it to become common practice.

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