
Using of Social Networks for Education

VenkoAndonov*, KirilBoyanov, Valentin Kisimov*****

**-University of National and World Economy, Sofia, Bulgaria*

***-Bulgaria Academy of Science, Sofia, Bulgaria*

****-University of National and World Economy, Sofia, Bulgaria*

ABSTRACT

The paper is dedicated to a research of a need of special social network for the purpose of university education, called Educational Social Network (ESN). On the base of a survey among students from University of National and World Economy (UNWE), Bulgaria, an analysis is provided and conclusions are presented from which follow what could be the principles of design of such ESN and what could be its core functions. The results are presented in a graphical form, leading to the provided conclusions. Based on the generated results, an Educational Social Network for the UNWE is developed.

Keywords: Social Networks, Educational Social Networks, University, students

INTRODUCTION

The evolution of the Web technologies, especially Web 2.0, Social Networks and the Broadband communications, provoke considerable changes in our economic and social life, opening the ways for new and challengeable approaches for resolving different global issues – in business management, in medicine, in ecology, in energy, etc. This raises the question of serious changes in education and in the methods of education. The system of education, which in general is not dynamic, needs of quick change, corresponding to the new ways of communications and behaviors of the young people. The professional competences (knowledge, skills and behavior), required from the beginning of the new millennium, are not any more valid and they have to become not locally oriented, but globally accepted.

The level of students' knowledge and skills educated by the universities are not any more satisfactory for the business. The business management requires more practical skills and specific technical depth from the students. Generally, the professors can give to students the required by the business knowledge and skills, they can change the curriculum accordingly, but the methods of education are questionable now, having in mind that the students have new types of behavior, based on their massive use of social and web technologies.

In the university education process the professors teach students about methods and tools – how to use and apply in their future daily tasks. With the tool “Social Networks” the situation is opposite – the students know better than professors how to use the social communications. Like the approach to any other children's game, the professors can say that the Social Networks are not applicable as an educational tool, because they are children's toy. This shouldn't be accepted based on: for 6 months (09.2013-3.2014) the Social Network users between all Internet users (which are more than 4 billion) have been doubled and reached about 80% of all Internet users [13]; about 75% of the people between 19 and 29 (digital native students called also “Generation Y”) use Social Networks actively daily [14]; Gartner presented that the Social Networks are becoming more and more serious part of the corporate information systems [15]. This leads to a conclusion that the Social Network is not a children's toy, but as a dominate tool, it should be accommodated in the education processes in universities.

In the current paper is offered an analysis of the effect of possible usage of Social Networks in university's education process. This analysis is based on a survey of a few hundred students from the University of National and World Economy (UNWE), Bulgaria. Based on this analysis, recommendations for design of a dedicated university Educational Social Network is provided.

**Address for correspondence:*

vkisimov@unwe.bg

Using of Popular Social Networks for Educational Purposes

During the last few years, universities have made researches for the role, applicability and effectiveness of the popular Social Networks (SN) such as Face book, Twitter and Google+, in the educational processes.

University of the West Timisoara, Rumania, has investigated the educational value and the usefulness of Face book between the students [5]. About 57% of the students like to use information for their course work through the SN, 30% of them identify that the SN is a comfortable environment for them to work and to communicate, while 14% of them think that the professors have to put more efforts to accommodate themselves to the SN.

University of Tubingen, Germany has investigated [1] whether and how the students use the popular local SN "StudiV" for educational purposes. Most of the student used the SN for non-educational purposes, while 20% of them used the SN for exchange opinions related to the educational process. The students from the lower courses (the youngest students) looked more and more information from their professors via the SN and for identification of colleagues with similar educational interests.

University of Cape Town, South Africa, has investigated [6] for which purposes the students use Face book and how valuable is the communication with their lecturers through the SN. According to the students, they spend enormous time in SN and being there, it is suitable to use the SN for education purposes. They use the friendship community of the SN to find colleagues, friends and co-thinkers for the same education goals, as well as to exchange lecture notes. Most of the invited professors to join appropriate communities in SN have rejected the student offers. From the other side, the students identified that the SN is useful as convenient environment for asking questions between the students and to professors, which increase the effectiveness of the education process.

University of Tennessee, Department of Education had investigated [7] the students' and professors' opinion for the perspective usage and the SN – Face book, in the education. Most of the professors and less students think that Face book is not suitable for education purposes and it is suitable only for social contacts.

University of Leicester, UK [12] has investigated the education potential of Facebook between first year's students. According to their results, the SN can be used reasonably for non-formal education purposes, such as communication between students, group work on mutual courses, exchange of educational materials etc. They use SN for sharing information similar to oral conversation and discussion about educational tasks.

The mentioned researches demonstrate that the universities independently that see some values from usage of SN, they are not so willing to use them. Some of the arguments are related to the personal aspect of the communication, opening of the personal space to the university environment, some have feelings about educational pressure on the individuals, etc. Conclusion can be made that reasonable, separate and dedicated social networks can be used in education, with isolated contact groups, content and activities.

Analyses of Student Options Using Social Networks for Education

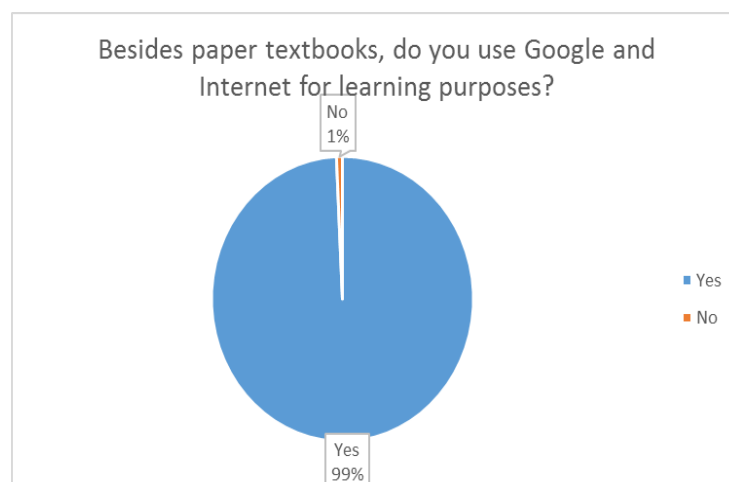


Figure1. Participants of the survey as Internet users

We have provided a survey to a few hundred students about their opinion of the value and the purposes of using Social networks for the needs of the university education. The survey was run in the University of National and World Economy (UNWE), Bulgaria via a questionnaire, containing 17 questions in three sections: general usage of information technologies during the learning process; attitude towards using social networks for educational purposes; and expectations from a specific implementation of educational social network in the university.

The participants of the survey are very high-tech literate - 99% of them use the Internet for studying (Figure1), most of them (88%) work with different application (e.g. Microsoft Office or another software products required for the courses), 85% of them communicate online with their peers and 26% use online communication with their professors, while fewer people - 36% are looking for information on previous exams (Figure).

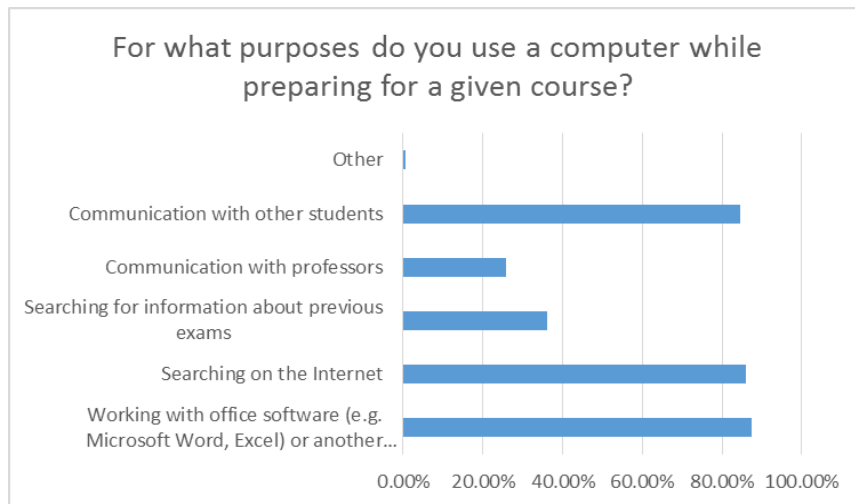


Figure2. Level of literacy of the students

Students use smart phones and tablets for education very actively (Figure) - 82% use for searching information on the Internet, 76% for chatting with other students, 59% for sharing files between each other, 32% for taking notes during lectures, and 15% for cheating during exams. These results suggest that most of the students are very familiar with the capabilities of their mobile devices and use a variety of the available applications both for search and for communication.

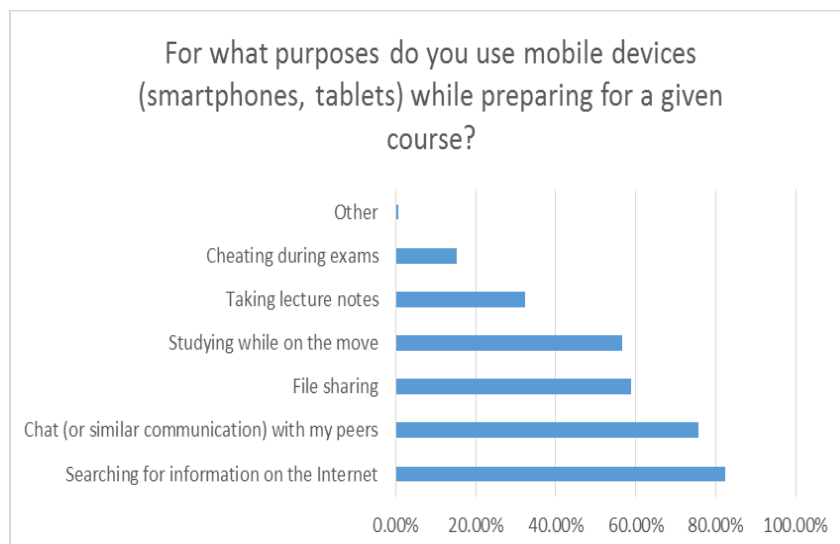


Figure3. Using of mobile devices by the students

The next set of questions attempt to understand the students' attitude towards a few possible use cases for social networks in education. It is important to mention that 88% of the students are willing to use a social network to discuss certain topics with their professors (Figure); even more - 94% would use such a network to share information related to the exams with other students (Figure), 71% believe that using such a social network would improve the learning process, and 21% agree with that social networks are suitable only for some specific courses (Figure).

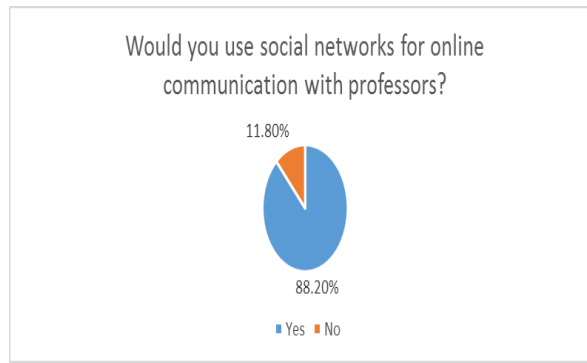


Figure4. Students' attitude to use social networks

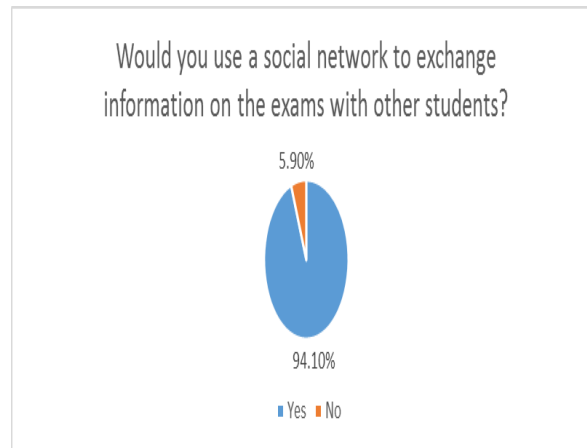


Figure5. Attitude to use Social Networks for education

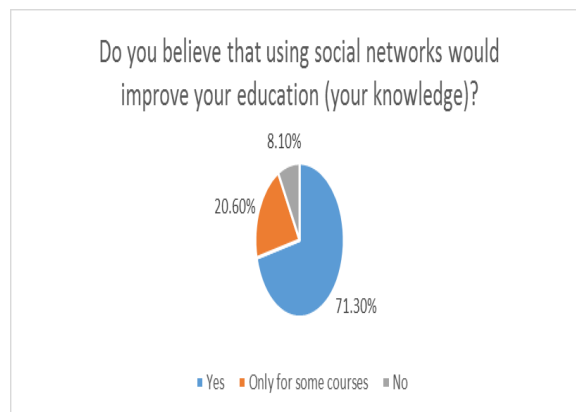


Figure6. Students' acceptance of the value of Social Networks to improve the education

The collaboration – an important feature of the social networks, is evaluated as a great tool in the education process, especially for creation of course works in a team of students (Figure).



Figure7. The value of the collaboration as social technology for the education

In contrast with the overall positive expectations of using a social network for education, the answers to the next scenario suggest that the students are skeptical about holding a course entirely in an online social network environment (Figure). About 22% of them believe it would not be applicable for any course and another 50% find such an approach appropriate for some of the courses. This leads to a conclusion that eLearning systems have to exist in parallel to the Educational Social Networks.

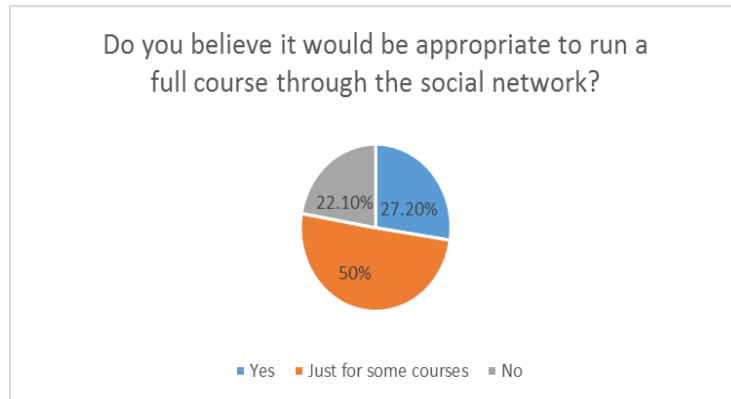


Figure8. Level of approval to use Social Networks as eLearning tool for a full course

The students expect that the benefits of using Educational Social Networks in the next five years might be for enhanced learning and understanding (72%), as a tool for communication with other students (72%), for communication with professors (66%), and as a collaborative way to gain experience in teamwork (54%) - Figure.

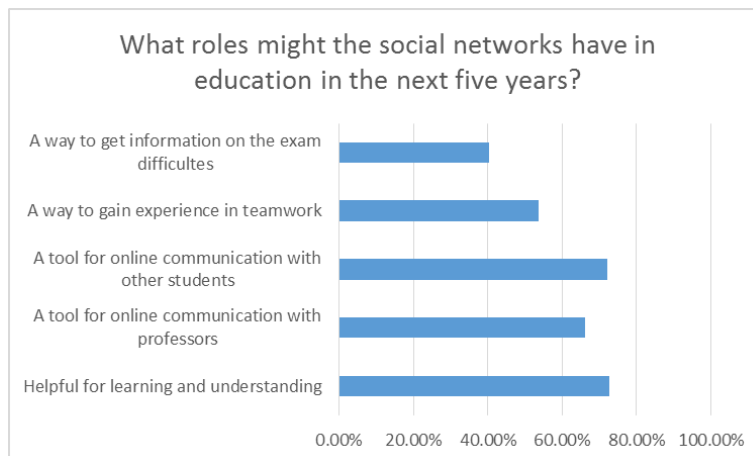


Figure9. Roles of the Social Networks in education

The first year students – those being on the edge between high-school children and the future students' community, are very willing to be active participants in the social networks as educational tool - 81% of them would keep their profile up-to-date (including photo, resume, and interests) (Figure), 92% would participate in teamwork group created by their professors (Figure), 69% would create their own group in an Educational Social Network without the participation of a professor (Figure), however only 21% of them would be active if the participation is not part of the final examination marking.

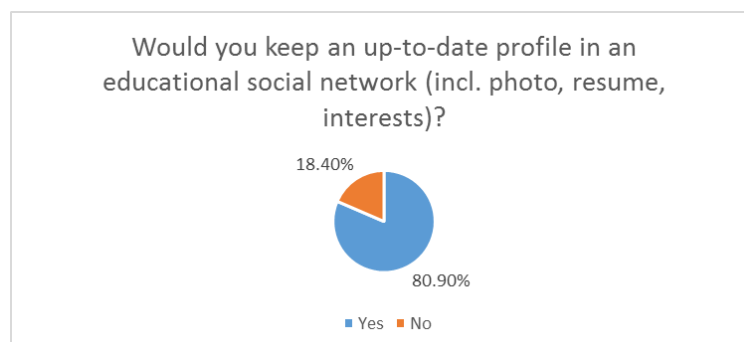


Figure10. Student wish to be with actual profile in the ESN

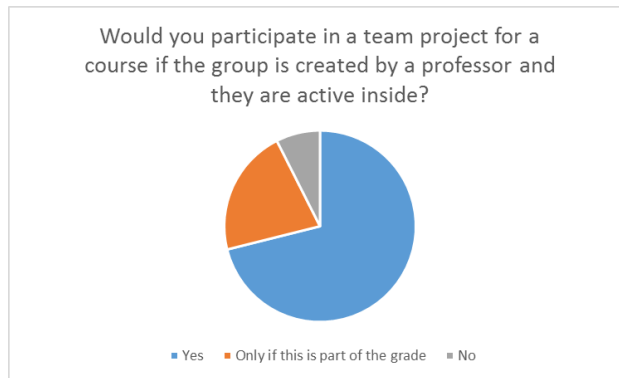


Figure11. Organization of educational team as "friends" in the ESN



Figure12. The educational team should be created by a professor

Since Face book is the most popular online social network among the students, they believe that Face book does not provide the necessary tools for such a professional social communication (Figure 13).

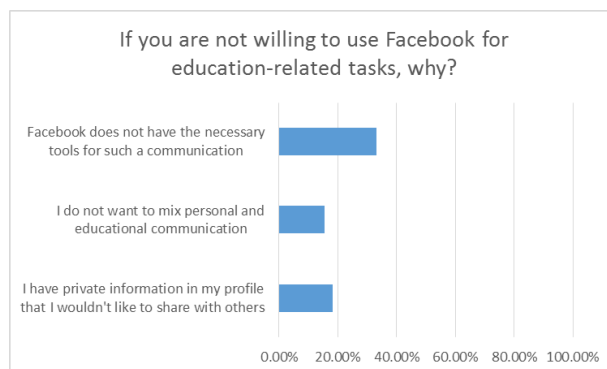


Figure13. Reasons not to use Face book for ESN

If there is an especially dedicated Educational Social Network, 77% of our students would participate in such a social network, while 16% of them would join it if this is an university requirement (Figure14).

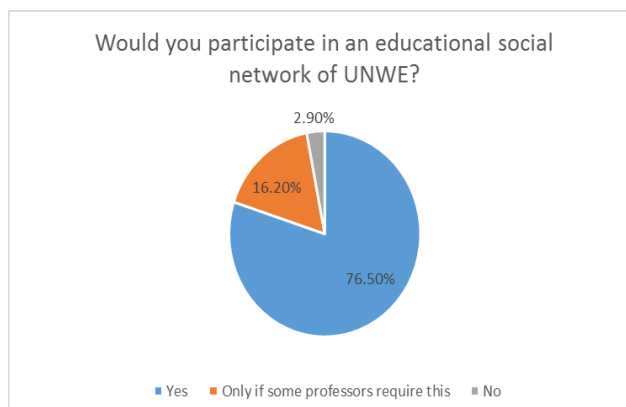


Figure14. Willingness to participate in an ESN

According to the students' survey, the most useful features of an Educational Social Network (Figure15) have to be:

- Creating contacts with students from the same specialty (80%),
- Creating groups for team projects (63%),
- Creating discussions (61%),
- Making contacts with the professors (60%),
- Create interest-based groups (50%),
- Create groups of interests – students with similar interests (50%);
- Following the education progress – grade progress (48%),
- Making chat between students and professors (43%).

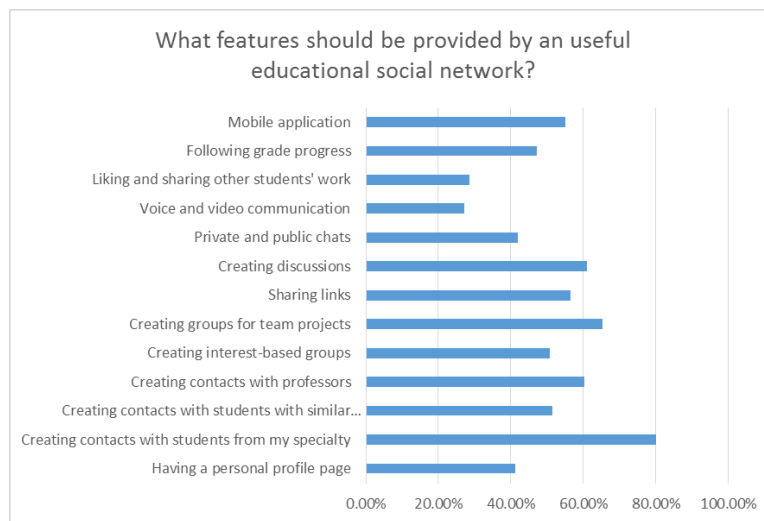


Figure15. Expected features in a ESN

Very important aspect is the student wish to have mobile access to the potential Educational Social Network (84%) – Figure 16. This feature is oriented not to use mobile browser, but to have fat client mobile application, working with the Educational Social Network, while the Educational Social Network itself is a web server-based application (to be used with laptop and desktop browsers as well).

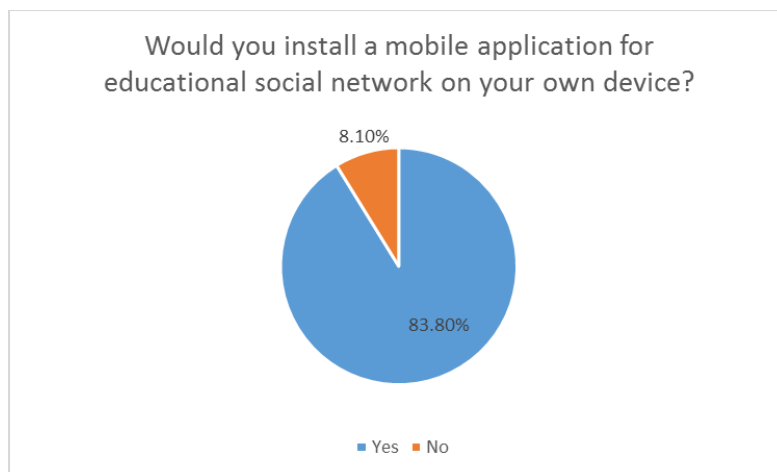


Figure16. Student wish to use mobile devices linked to ESN

Directions for Design of Educational Social Network

Based on the provided survey and the provided analysis, we have deduced the following principles and functional specification of the Educational Social Network, which should serve the needs of the universities.

Principle Directions for Design of Educational Social Networks

As a result of the presented survey, we went to the following principle directions that have to be used for design of an Educational Social Network for a university:

- To be web based system with possibility of fat mobile application;
- To have integration with the university eLearning system, such as Model;
- To have integration with a Repository with educational supporting materials and/or successfully developed theses from previous years;
- To be an environment for a community interest in educational and student research;
- To serve the needs for new type of support of teaching and research university activities;
- To support students' course works, semester and final graduation examinations, course R&D, Master and PhD research;
- The users to be students (Bachelor, Master, PhD and post-PhD), professors, or external outstanding specialists, taking part in the education and research university activities, without any other external access;
- To apply signed policy and procedures for the users;
- The nature of interests and the group for each interest to be defined by the university professors, using topics of or entire course titles from the educational curriculum;
- Research interests to be defined by the university professors or/and PhD supervisors;
- The university management to have control on the content and the applied interests groups.

Core Functional Specification of the Educational Social Network

As a result of the presented survey, we went to the following Core functional specification of the Educational Social Network that has to be used for a design of an Educational Social Network for a university:

- Every user - students (Bachelor, Master, PhD and post-PhD), professors, or external outstanding specialists, taking part in the education and research university activities, to have a personal profile. In case of other university computer system, keeping information for students' and professors' activities and their emails, those systems have to be integrated to maintain single copy of identities;
- For the administrative student groups and streams, separate profiles have to be created;
- Dynamic groups (part of an administrative student group) should be able to be established by a professor, forming teams for collaborative course work;
- Dynamic discussion environment/chat should be able to be established by a professor, related to a trained discipline or a research topic, encompassing the professor and the students;
- Dynamic discussion environment/chat should be able to be established by a professor, related to specific educational / research topics, with participants - only students;
- Dynamic discussion environment/chat should be able to be established by a professor, to make contacts with the professors – by educational / research topics, or by discipline;
- Student has to have a possibility to create special "university friendship" - students from the same specialty or studying the same discipline;
- Student has to have a possibility to create educational / research interest, via selection of a trained discipline's title or a topic from a discipline;
- Student has to have a possibility to create additional interests, via selection from a list of pre-defined by the university literature, music, art and philosophical topics;
- Low-level operations should be provided for:
 - Posting news and messages;
 - Focusing on essential events;
 - Sharing files, photos, clips;
 - Establishment of peer messages exchanged between users;

- Supporting of Calendar of events;
- Using shared device between defined group of users for collaborative work;
- Tagging of events and files.

CONCLUSION

The provided survey and its analysis show that the students accept extremely positively the usage of social network for education. The core social technologies are becoming native to the students and they require their availability in the educational and research processes at universities. Using these social technologies in a dedicated Educational Social Network, will make their daily activity applicable for educational and scientific research. New relationships in the university will be established based on the social technology - student-student(s) and student(s)-professor, applying educational interests and serving in a new way the university goals. Through the Educational Social Network the universities will step in a new era of educational and research processes, leading to better qualification and progressively increasing the received knowledge and skills.

The social communication between students and professors will not only resolve essential educational tasks, but also will create a base for generation of new issues and ways for their resolution, related to the contemporary young people's behavior and attitude in the education process.

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AUTHORS' BIOGRAPHY

Dr. VenkoAndonov is a web development manager and part-time assistant professor at the University of National and World Economy in Sofia, Bulgaria. He received his Ph.D. degree in 2014 for research on the design and development of data models for educational social networks. His research interests are mainly in web and mobile development, service-oriented architectures, database design and scalability.

Acad. Prof.DSc KirilBoyanov graduates the Higher Institute of Mechanical and Electrical Engineering – Sofia in 1958 as a Radio engineer, defends his PhD (1966) and DSc(1975), becomes professor in 1982 and in 2003 has elected as Academician of the Bulgarian Academy of Sciences. He undertakes various leadership positions in the industry: Director of the Institute for Microprocessors and Instruments, Director of Centre for Informatics and Computer Technology, Director of Institute for Parallel Processing. He is Bulgarian Representative in IFIP, Member of Bulgarian Union of Automatics and Informatics. He holds the Academy award for technical sciences for the year 2000 He has over 200 publications, 45 research developments, 23 copyright certificates, 36 books and lecture materials. He has supervised 32 Ph D students, who defended their theses.

Prof. DSc Valentin Kisimov is Vice Rector and Head of Department "ITC" at the University of National and World Economy (UNWE), Bulgaria. He is the creator of the first Bulgarian electronic examination in university, eliminating different influences and not-individual input and Manager of integration system of Microsoft Cloud services with a university Education Social Network. Working 17 years (1991-2007) in RSA as lecturer at WITS – Johannesburg, Head of consulting team at IBM for Networking services, Solution architect for big scale national and international projects for T-Systems SA, Head of infrastructure team implementing eGovernment for RSA, Manager of many banking ICT projects, Head of a Research Laboratory for new security solutions in participation IBM, Cisco, T-Systems, University of Johannesburg and University of Cape Town.