

A SOCIAL NETWORKS IN EDUCATION

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ABSTRACT

At present social networks are becoming important in all areas of human activities. They are simply part and parcel of everyday life. They are mostly used for advertising, but they have already found their way into education. The future potential of social networks is high as it can be seen from their statistics on a daily, monthly or yearly increase in the number of their users. The purpose of this article is to provide a short description of the concept of social network and its classification according to the way how they function or their main purpose. In addition, the authors discuss two main approaches to teaching and the educational theories out of which connectivism is the first theory which takes into account the existence of computer networks and considers all knowledge and abilities as a result of mutual interconnection of information and people. Thus, it is the theory which enabled the implementation of ICT into education and has completely changed the traditional teaching and learning. In conclusion, the authors also explore a few already existing educational social network sites and their benefits for education.

KEYWORDS

Social networks; education; approaches; theories.

1. INTRODUCTION

At present social networks are becoming important in all areas of human activities. Every man is a member of social network when he is born in the relevant community, i.e. in the family. Later, man comes in contact with the so-called Internet Social Networks (SNSs). The object of SNSs can be just a classic e-mail or more complex web tools aimed at service promotion, sharing, information search and communication among their users.

Social network can be perceived from different points of view. From the sociological point of view, social network is a connected group of people who can influence one another. In most cases the group is based on common interests. It can also originate for family reasons when the group members are relatives. The concept of social network was used already before the rise of the Internet. It was defined by the sociologist J. A. Barnes in 1954. Barnes was researching the relationships among the Norwegian fishermen. Thus, the primary meaning of the social network was sociological which served to the description of social structures connected for different reasons (Pavlicek, 2010). Barnes defined the social network as a set of points and some of these points are mutually connected by lines (relationships – bonds). They afterwards form a total network of relationships, the so-called social network (Rulf, 2013).

According to Pavlicek (2010), the social network contributes to mutual influencing and enrichment of the whole group. He claims that the group identity accompanies a person all his life and he usually becomes a member of more than one group at the same time. And in each group he behaves and communicates differently.

With the arrival of new information and communication technologies, the social network acquired a completely new meaning. The advantage of the Internet social network is that people can communicate independently on their location and time, and thus keep in touch anywhere. Moreover, they have easier access to contact their friends and find information about them.

The online social networks have many definitions. One of the most frequently used is provided by Boyd and Ellison (2007) who define SNSs as web-based services that allow individuals to construct a public or semi-public profile within a bounded system; articulate a list of other users with whom they share a connection; and view and traverse their list of connections and those by other within the system. The Czech expert in social networks Bednar (2005) defines the online social network as follows: The online social

network is a system which enables to create and maintain a list of mutually connected contacts, friends. Each user of such a system has his own characteristic features which are publically available to other users. Within this system people can search for one another and form a virtual community in this way. A more advanced form is the browsing of the list of friends. The social network also enables searching for former colleagues or virtualization of working teams. In addition, there is a possibility to upload different kinds of information or photos.

Since 2003 there has been a myriad of social networks out of which some are really popular nowadays such as MySpace, YouTube and, of course, Facebook (Pavlicek, 2010). Consult Fig. 1 for the historical milestones in the development of social networks.

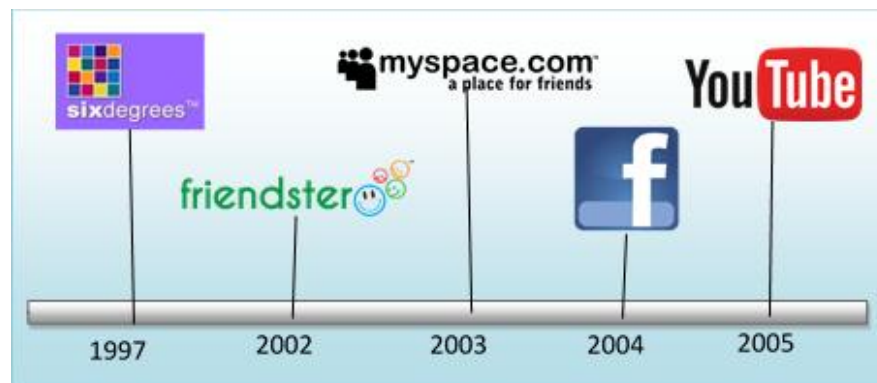


Figure 1. Historical milestones in the development of social networks

2. CLASSIFICATION OF SOCIAL NETWORKS

Social networks can be divided into several types according to the way how they function or what their main purposes are (Platko, 2010). Among the principal categories there are social networks based on the profile, content, the so-called white label networks, microblog or virtual networks (cf. Childnet International, 2008). Fig. 2 provides a graphic illustration of the classification of SNSs.



Figure 2. Classification of social networks

Profile based social networks - these are the networks in which it is important to interact with people. The personal profile has its significant role in this because thanks to it, people can keep in touch with other people, share their opinions, photos or some important events (cf. Young People and Social Networking Services, 2005-2015). The most popular networks of this type are undoubtedly Facebook, followed by Google+ (cf. Cerna and Cerny, 2012). Also the professionally oriented social network LinkedIn is among these SNSs.

Content based social networks – the personal profile is not that much important in this case. It is the content which is the key and is shared by people on the social network. This social network can include videos, music or pictures. These media are usually accessible to all, including those who are not registered on these SNSs. Probably, the best known representative of these SNSs is YouTube which enables users to record and share their videos. The portal which aims at photos and is worth mentioning is the mobile application Instagram.

White-label social networks – this is a kind of services which offer an independent development of social network on the basis of the offered platform. Thus, users can create their own mini community, i.e. their small social network. They can make such a social network which would meet their expectations and needs. Thus, they can generate their own Facebook or Twitter in this way. Another name for this social network is Private label (cf. Owyang, 2007). The representatives of these platforms are also PeopleAggregator or Ning.

Microblog social networks – the main feature of these SNSs is publishing of short messages with a chance of adding a video or a picture. This is displayed to all subscribers of a given user. This type of social network is predominantly used on mobile phones and particularly, in case of worse text messaging (cf. Cerna and Cerny, 2012). The main representative of these SNs is Twitter. This network offers a platform both for mobile phones and normal web browsers. The network is becoming quite popular in the Czech Republic. Another microblogging tool is Tumblr.com.

Multiuser virtual networks – these are the categories which are borderline social networks. Their purpose is to enable users to communicate among one another, but not with the help of their profile but with the help of Avatars. Most of these networks are game servers such as World of Warcraft.

3. POPULAR SOCIAL NETWORKS AS TOOLS FOR EDUCATIONAL SUPPORT

The most popular social network nowadays is undoubtedly Facebook. The user who wants to use Facebook services must be 13 years old and above. Therefore the application of this SNS in education is possible for the students of higher classes (8th and 9th grades of the elementary school). Schools often use Facebook as a tool of their presentation in public. Students form groups on Facebook whose size corresponds to the number of students in one class. On this SNS they share study materials, current information about the assigned tasks, tests or other assignments and events.

Twitter also offers practical exploitation during tuition at school as well as at home. Twitter as an educational tool can serve for communication, organization, searching for sources or written communication (Staff Writers, 2011). Some teachers at Northern Illinois University in the USA use Twitter as a noticeboard on which they record current information concerning their classes, for example, cancelling their classes. Therefore, this SNS can be used for setting teacher's consultation hours. Twitter can be also used as a note blog for each class where students can upload their contributions. Students can debate there online and thus, they can receive almost immediate feedback on their discussions. The teacher can ask his students to inform him about what they are learning and what learning difficulties they are having by the so-called tweeting. In this way students create their online diary of learning. In addition, parents can exploit Twitter for an overview of their children's activities. Twitter can be also used for summarizing of the teaching matter on a given day. Moreover, Twitter provides their users with an extensive source of information. Students can with its help communicate with experts. Twitter can also broaden student's horizons, their vocabulary, spoken and written communication. As Twitter has a limited length of messages, it is also a suitable tool for concise and simple expression of user ideas.

YouTube EDU is a special educational channel focused on the educational videos. It is the so-called global video classroom which users can exploit both for school or home instruction. The channel offers interesting videos from all fields of human activity. Users can sort them out not only according to their interests but also according to their level of education. The videos are mostly made by the representatives of various educational institutions or experts in a given issue (YouTube EDU, 2013). Furthermore, teachers can modify the content of the service to their teaching purposes. The content is divided according to individual subjects and difficulty level (YouTube pro skoly, 2013).

4. CHANGES IN THE EDUCATIONAL PROCESS

With the development of ICT, the educational issues have become even more topical. When studying the role of technologies in teaching, two approaches are common: instructive and constructive. In case the teaching is controlled directly by computer, it is the instructive approach. If the activity is based on student's own initiative, it is the constructive method (Brdicka, 2008).

Instructive approach

- Fixed syllabuses and standards
- Learning by drilling
- Everybody does the same
- Testing and grading
- Teacher is the highest authority
- Teacher is a source of information

Constructive approach

- Thematic learning plan
- Learning by understanding the connections
- Individual or team assignments
- Verbal evaluation
- Teacher as a facilitator and coach
- Anybody can be a source of information

In practice the instructive approach prevails. The student is checked by the teacher. However, with the fast development of technologies, the constructive approach is becoming foreground. In this approach the student is responsible for his activities and learning (Brdicka, 2004). Nevertheless, education cannot be defined only by two approaches. There exist far more conceptions, out of which the following three are the most frequent: behaviorism, cognitivism and constructivism, which had been developed before ICT started to have an impact on education. But in spite of these theories, a new theory for suitable implementation of ICT into learning environment was needed. And it was G. Siemens who came up with such a theory, called connectivism (Siemens, 2004). He points out at the limitations of those three theories, emphasizing that the central idea of these conceptions is that learning occurs only inside a person and the fact that the learning can occur outside the person as well is omitted. Moreover, he is critical of the fact that learning theories are just focused on real process of learning, not on the value what is being learned. Connectivism or the theory of education in the social network environment (Brdicka, 2008) has a direct impact on education (Downes, 2014). Thus, connectivism is the first theory which takes into account the existence of computer networks and considers all knowledge and abilities as a result of mutual interconnection of information and people (Brdicka, 2011).

Siemens (2004) has formulated connectivism on the basis of the following eight basic principles:

- *Learning and knowledge rests in diversity of opinions.*
- *Learning is a process of connecting specialized nodes or information sources.*
- *Learning may reside in non-human appliances.*
- *Capacity to know more is more critical than what is currently known.*
- *Nurturing and maintaining connections is needed to facilitate continual learning.*
- *Ability to see connections between fields, ideas, and concepts is a core skills.*
- *Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.*
- *Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alternations in the information climate affecting the decision.*

Part of the learning process according to the theory of connectivism is the so-called Personal Learning Network (PLN). Each pupil creates his own PLN through which he is assessed and evaluated. In fact it is the network which is made by people with whom one shares his experience and knowledge, receives new information or provides opinions.

5. DISCUSSION

As Bloom (1956) states, learning is a process helping pupils in their development from the lower forms of thinking (e.g., knowledge or understanding) to the higher forms of thinking (e.g., synthesis or evaluation). And the social networks can assist in reaching these forms. For instance, Flickr can help in the acquisition of knowledge, Wikipedia in understanding this knowledge and YouTube is suitable for the synthesis.

In addition, social networks can bring many other benefits for all stakeholders such as teachers, students and parents. The Internet social networks are good tools for easier understanding of economic, political and social events. Another advantage is their easy access, which is independent on location and time. Students can log in a social network from cosines of their home and consult all the necessary school issues with their peers and teachers, particularly when they fall ill. The social network may also improve mutual relationships among students.

At present there is a sufficient offer of the social networks which were created to cover both teachers' and students' needs not only during classes but also in case of home learning. These include, for example, itrida (iclass = the Internet class), Edmodo or Schoology. The iclass focuses on basic and secondary schools. At these portals teachers and pupils can find a lot of learning materials. The use of the platforms is free of charge (Krizko, 2013). Particularly Edmodo, which has been in use since 2008, was developed for teaching purposes. Its environment reminds of Facebook. Therefore its users do not have any difficulties in controlling this educational environment (Strnadova, 2012). While working in these platforms, users can be divided into virtual classrooms where they share their notes or materials (consult Fig. 3 for an example). The most extensive is, however, Schoology which offers the most functions (Moldrik, 2013). The only disadvantage for a Czech user is that the last two SNSs are run only in English.

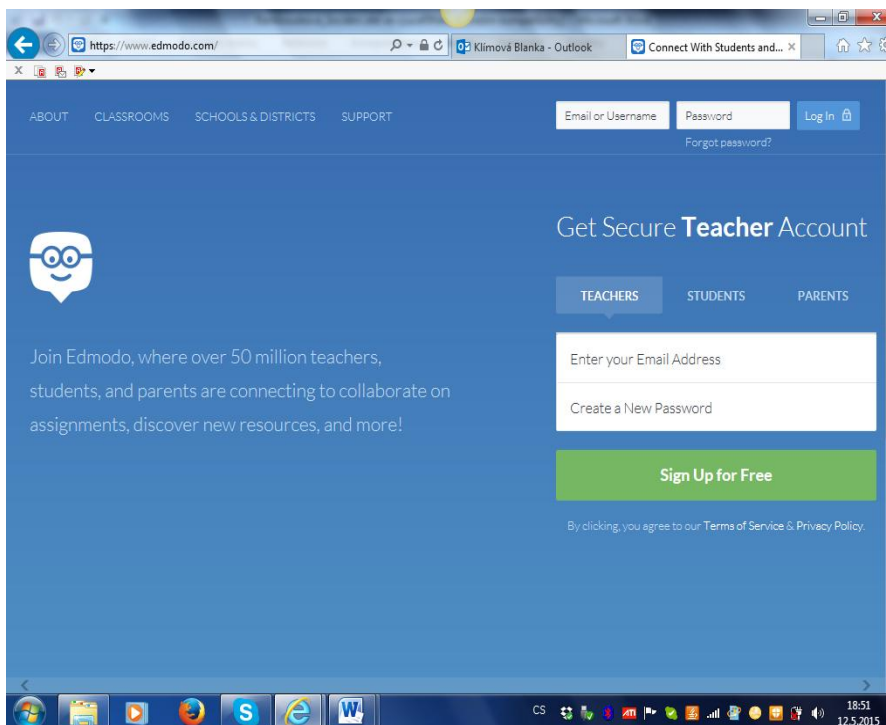


Figure 3. An example of the social network Edmodo (2015)

However, Rambouskova (2015) in her study explored which from the three social networks described above Czech pupils at elementary schools would like to use in their classes. On the basis of their responses, she discovered that they favored Edmodo because it was a good source of information and working in this social network was very attractive. Besides, those pupils who were ill could access their classes online and thus, they did not miss any lessons.

6. CONCLUSION

Thus, technologies in the 21st century and a new theory - connectivism, which enabled their implementation into education, have completely changed the way of teaching and learning. Nowadays, SNSs are part and parcel of everyday life. They are mostly used for advertising, but they have already found their way into education. The Internet social networks proved to be beneficial for education mainly for the following three reasons: easier communication between (teacher-pupil; pupil-pupil; teacher-teacher); improvement of class relationships; and immediate access to information.

The future potential of SNSs is high. It is expected that SNSs will become a common tool in education which will be used at each educational institution. In addition, there are already a few research studies (e.g., Bosch, Preez and Michell, 2009 or Wang et al., 2012) in the field of social networks which prove that SNSs can be very effective learning tools that improve students' performance and motivation to learn.

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REFERENCES

- Bednář, V. 2005. Jak dnes fungují sociální sítě. *Lupa* [online]. Retrieved from: <http://www.lupa.cz/clanky/jak-dnes-funguji-socialni-site>
- Bloom, B. 1956. Taxonomy of educational objectives, Handbook 1: The cognitive domain. New York: David McKay.
- Bosch, T. E., Preez, A., Michell, L. 2009. Using online social networking for teaching and learning: Facebook use at the University of Cape Town. *South African Journal for Communication Theory and Research*, 35(2), pp. 185-200.
- Boyd, D. M., and Ellison, N. B. 2008. Social network sites: Definition, history and scholarship. *Journal of Computer-Mediated Communication*, 13(1), pp. 210-230.
- Brdička, B. 2011. Bloomova taxonomie pro kreativní prostředí. *RVP* [online]. Retrieved from: <http://spomocnik.rvp.cz/clanek/12573/>
- Brdička, B. 2008. Konektivismus - teorie vzdělávání v prostředí sociálních sítí. *RVP* [online]. Retrieved from: <http://spomocnik.rvp.cz/clanek/10357/>
- Brdička, B. 2004. Vliv technologií na inovaci výukových metod. *Česká škola* [online]. Retrieved from: <http://www.ceskaskola.cz/2004/12/borivoj-brdicka-vliv-technologie-na.html>
- Černá, M. and Černý, M. 2012. Úvod do problematiky sociálních sítí. Retrieved from: <http://clanky.rvp.cz/clanek/c/G/15075/uvod-do-problematiky-socialnich-siti.html>
- Childnet International. 2008. What are social networking services?. *Digizen* [online]. Retrieved from: <http://www.digizen.org/socialnetworking/sn.aspx>
- Downes, S. 2014. Connectivism as Learning Theory. *Half an hour* [online]. Retrieved from: <http://halfanhour.blogspot.cz/2014/04/connectivism-as-learning-theory.html>
- Edmodo. 2015. Retrieved from: www.edmodo.com.
- Jain, S. 2012. 40 Most Popular Social Networking Sites of the World. *SocialMediaToday.com* [online]. Retrieved from: <http://www.socialmediatoday.com/content/40-most-popular-social-networking-sites-world?page=1>
- Křížko, L. 2013. ITřída [online]. Retrieved from: <https://slideslive.com/38890126/itrida>
- Moldřík, K. 2013. Sociální sítě určené pro výuku. *RVP* [online]. Retrieved from: <http://spomocnik.rvp.cz/clanek/17603/socialni-site-urcene-pro-vyuku.html>

- Owyang, J. 2007. List of “White Label” or “Private Label” (Applications you can Rebrand) Social Networking Platforms, Community Platforms. [online]. Retrieved from: <http://www.web-strategist.com/blog/2007/02/12/list-of-white-label-social-networking-platforms/>
- Pavlíček, A. 2010. Nová média a sociální sítě. Oeconomica, Praha.
- Platko, O. 2009. O webu.cz: o internetu, počítačích a webhostingu *Sociální sítě 2. díl, společné prvky*. [online]. Retrieved from: <http://owebu.bloger.cz/Internet/Socialni-site-2-dil-spolecne-prvky>
- Rambouskova, M. 2015. Sociální sítě a jejich využití ve vzdělávání. Bachelor paper. Hradec Kralove: UHK.
- Rulf, O. 2013. Sociální sítě a jejich vývoj - pohled do historie. *Objevit* [online]. Retrieved from: <http://objevit.cz/socialni-site-vyvoj-pohled-do-historie-t22280>
- Siemens, G. 2004. Connectivism: A Learning Theory for the Digital Age. *International Journal of Instructional Technology and Distance Learning*, 2(1), pp. 1-8.
- Strnadová, I. 2012. Výuka i za školními zdmi. *RVP* [online]. Retrieved from: [http://spomocnik.rvp.cz/clanek/14907/](http://spomocnik.rvp.cz/clanek/14907/Young_People_and_Social_Networking_Services._(2005-2015)_[online]._Retrieved_from:_http://www.digizen.org/socialnetworking/sn.aspx)
- Young People and Social Networking Services. (2005-2015) [online]. Retrieved from: <http://www.digizen.org/socialnetworking/sn.aspx>
- YouTube EDU. 2013. EDVENTURE. *Mimoskolu* [online]. Retrieved from: <http://www.mimoskolu.cz/portfolio/youtube-for-education/>
- YouTube pro školy. 2013. *Youtube* [online]. Retrieved from: <https://www.youtube.com/schools>
- Wang, Q., Woo, H. L., Quek, C. L., Yang, Y., Liu, M. 2012. Using the Facebook group as a learning management system: An exploratory study. *British Journal of Educational Technology*, 43(3), pp. 428–438.