УДК 37.091.31:004.738:316.772.4

Olga P. Pinchuk
PhD (in Pedagogics), Senior Researcher, Deputy Director for Scientific Experimental Work
Institute of Information Technologies and Learning Tools of NAES of Ukraine, Kyiv, Ukraine
opinchuk100@gmail.com

PERSPECTIVE ANALYSIS OF USE OF SOCIAL NETWORKS AS LEARNING TOOLS IN LEARNING ENVIRONMENT

Abstract. Didactic value of electronic social networks is determined by capabilities to provide group interaction. It is proved that ESN can act as means of collaborative training activities, means of social contacts deployment, extension of all participants' social interaction in educational process. Attention is paid to emphasis change from network communication to productive discussion and from collaboration to cooperative learning methods for students. The problem of improving of information and communication competence of all learning process partners is described. Possible changes in teaching methodology, when new objects, electronic social networking services appear in the system of education, are examined.

Keywords: electronic social networks; informational and educational environment; learning.

1. INTRODUCTION

A noticeable increase in the number of Internet social networks and global involving people in their use is one of the forms of expression and development of communication network that appears to be the basis of the information-oriented society. Information age is characterized, first of all, by change of mankind from production material products mainly to nonmaterial (information, knowledge, human cognitive processes). This process comes with certain social transformations [1]. On the other hand, there has been trend of changes acceleration in technologies and technical means. These modern challenges as: a significant increase in data processing information systems, a variety of technological platforms, mobility and mass-oriented personal computer devices, spread of cloud-oriented systems and access technologies to electronic resources - certainly affect the development of information and educational environment, create special conditions for formation of educational environment of modern school educational environment.

Nowadays, electronic social networks (ESN) are means for a large number of global network users to get more opportunities for communication, accumulation and transfer of knowledge, use of their own creativity in educational, scientific and socially important problem solving, generation ideas, etc.

It is our opinion that, the use of electronic social networking in education can have a synergetic effect, related, in particular, to the fact, that combined use of several mutually agreed pedagogical strategies appears to be more useful than implementation of any isolated one. Nevertheless, the use of ESN in education is connected to solving a number of psychological, pedagogical, organizational problems, with strengthening of information security rights, protection of data in information networks. The article deals with electronic social networks as a factor as a factor of indirect action on development of modern learning environment. Conclusions are supported by numerous polls data of students, parents, teachers, education managers from different countries (Ukraine, the USA and Europe) on the use of social networks in general and their inclusion into the teaching and educational process in particular. The point of components of IC competence of teachers, which involve use of social studies and educational networks in teaching and an issue of learning situations and educational project development using ESN are controversial.

2. RELATED WORK

The introduction of open education can provide the necessary social and economic effect only when means and technologies of open education will not be off-site or separate elements, additions to the existing education system, but will be naturally integrated into the traditional system. Basic principles of open education meet modern educational needs of an individual and the society. Considering the subject of the research we will focus on the following principles of an open education structure as the humanization of education, flexibility and extraterritorial status of education [2].

The principle of humanization of education is a decisive one in the system of continuous education. The core of this principle lies in extension of training and educational process for a person in general, in creation of the most favorable conditions for acquirement of social experience by students, in mastering their general education and profession they have chosen, in development and performance of their creativity, high civic, moral and intellectual qualities that would ensure their social security and decent life in the modern world.

The principle of flexibility of training provides opportunitie for flexible formation of individual plans and programs of students mastering various subjects and disciplines on different levels of education, and implementation methods and forms of training. It provides the ability to change educational establishment and teachers various subjects, etc. Due to the flexibility of methods, tools and technologies, these systems must meet the requirement of adaptability to existing educational level of students and their educational needs in certain specified and mentioned above limits.

Training corresponds to the principle of extraterritoriality, if can be performed beyond educational institution, without regard for student's distant geographical location from the school, mainly in convenient both for a student and a teacher place. To do this distance online and offline modes of educational communication, telecommunication modes of access to educational informationфд resources and other teaching resources are provided.

In [3] we consider e-learning systems as such that can be used as an extra in the field of secondary education. This fully corresponds to modern concepts of distance learning (DL) in secondary schools of Ukraine. Different types of this kind of teaching students are determined through differences in the degree of exterritoriality, personalization and productivity.
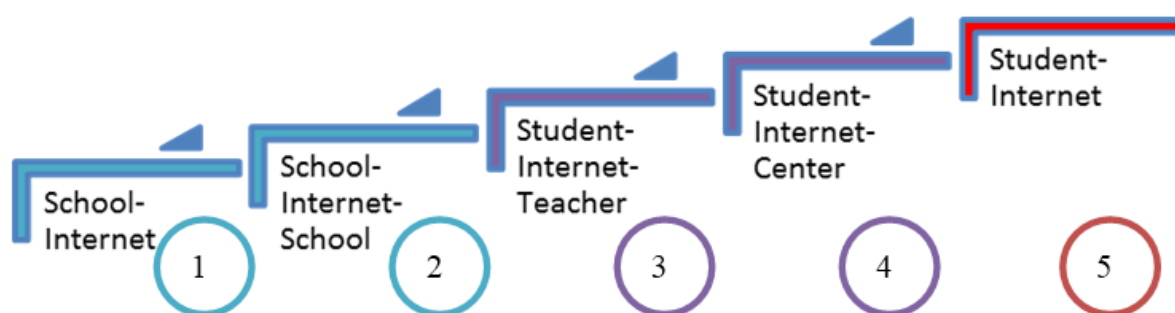
Fig. 1. Types of e-learning by means of the Internet [3, p. 48].

Use of electronic social networks in learning senior pupils, from our point of view, today can be appropriate and comply with type 2 represented in the figure. As being development prospects of national education in this field let us also examine the fourth and fifth type.

According to the second type, learning takes place in the form of distance education projects. The project participants are students and teachers of different schools (possibly

different countries). The organizer of this project could be the establishment of extended education, such as Junior Academy of Sciences of Ukraine, a higher educational institution or one of the schools participating in the project.

Participation in the project is a mean of extended education. The impact on the quality of basic education appears negligible. Communication with teachers and students is not systematic. Communicative space of participants of educational interaction although features a profound communication (as there is a close information exchange, a wide resource is involved in communication), the purpose of this interaction may differ from the goals of the educational process of basic school subjects.

Type 4. The role of organizer and coordinator of the study is entrusted on the Center for Distance Learning [4]. This type of DL technology can provide full distance learning (but not intramural) for children with mental and physical capacities, of children who stay in hospital for a long time or in reform schools. The application of this type of education can be applied for teaching gifted children. Development of technologies by type Student - Internet - Center is possible when creating, firstly, the legal framework of such organizations and centers. Unfortunately, in Ukraine there is a lack of it.

Type 5 of DL of this type is called distributed. The curriculum for an individual student designed in the way when different subjects are studied by him in different schools, with a help of different teachers and takes into account the individual characteristics and educational goals of the student. The role of coordinator performs either educational establishment (intramural or distant) or the student's parents. Today one can't find analogues of such training in Ukraine.

Nowadays social networks are global trend. Impartial in social networks people, are increasingly regerded by people as isolated from life, not modern, obsolete.

In [5] we have analyzed a current state of educational research of ESN and formation of practical experience in their use. Retrospective analysis of social networks studies is made taking into account characteristics of their formation in terms of expanding communication space of globalized society; transformation of the old and the emergence of new practices of social interaction in different spheres of society. Based on the comparison of ESN potential and educational outcomes, as benchmarks of learning, we have defined pedagogically appropriate practical training tasks. Organizational forms of training, in which the use of ESN comes to be the most efficient, are also specified.

It necessary to point out that in recent years the formation of practical experience, activation of attempts of social networking services use in teaching practice has been observed in activities of teachers-bloggers, members of popular interest groups on Facebook (e.g. ICT - learning of Ukrainian teachers, Learn with Google, Educational technologists, PC in physical experiment) and professional communities on Google+. But this process is not accompanied by didactic and psycho-pedagogical substantiation.

Researchers, involving experience of foreign educators [6; 7], have identified a score of psychological, social and pedagogical arguments in favour of their application. Hereby we mention only a few which, in our opinion, are the most convincing.

1. ESN provide free use of a server for storing digital data.
2. ESN are popular among young people. This is a comfortable, convenient, positively disposed, familiar environment for the student.
3. With ESN as a teaching tool, students improve ability and create skills: properly and creatively use data to solve problems jointly create learning content, engage others and engage themselves in projects through various forms of communication (wikis, forums, polls, voting, comments, personal messages, chat, etc.), schedule (events, appointments, reminders of important dates) observe and coordinate their work.

4. A classroom discussion can be continued in the social network. Learning takes features of continuity.
5. A virtual learning group, set up in ESN, is always available if using mobile Internet.

3. PERSPECTIVE ANALYSIS IN PEDAGOGICAL RESEARCH

Equally important than a retrospective analysis of the phenomena is a perspective analysis of educational innovations. Prospective analysis of pedagogical innovations is equally important. Results of this analysis are probabilistic in nature, but without ones, it is impossible to prove both projected growth of education in general and spesific subjects teaching techniques in particular. It is necessary to identify the factors that will make a significant impact on results of studies with the use of ESN, as well as degree of this impact due to the establishment and compliance with certain psychological and pedagogical conditions. In prospective analysis we understand studies of educational system by parameters, which determine its future status. The peculiarity of such analysis is in projection of the past and present state of the object in the future, focus on the selection of specific behavioural strategies of learning process with many alternatives and forming an integral conception of development of educational system. It is assumed that due to changes in state of real learning environment it is possible to correct a strategic plan of behaviour of individuals of educational process. It is also important to identify the causes and factors that can negatively influence results of learning activities and elaboration of precautions in a prospective analysis and conceptual foresight, as a rule, qualitative changes appear to be important aspects when quantitative ones play a supporting role. For prospective analysis of electronic social networks use in the learning environment we offer the following indicators: the intensity of communication, indicator of thematic communication, self-activity indicator, the amount of interpersonal interactions, and the set of competencies or academic performance.

Much can be debated about the pros and cons of ESN use. However, their dynamic use has become an active part of modern life. We are of the opinion that it is more effectively to focus on overcoming significant conservatism of teachers, which takes a form of opposition to any innovations, and on specific recommendations as for use of ESN in training and education. An active resistance to change can be overcome if: there is awareness of the essence of ESN, there are no restrictions in accessibility of ESN resources, and there is an understanding of the negative consequences of neglect of student's safety in network.

4. RESEARCH METHODOLOGY

Conceptual theses of national and foreign social philosophy, sociology and psychology, made while researching development and functioning of social media in modern society, have made up theoretical basis of our research. We also used the theoretical conclusions of scientists regarding informatization of education (V. Bykov, R. Gurevich, M. Zhaldak, A. Gurzhiy, etc.) and scientific and education principles of formation and use of information learning environments (V. Bykov, Yu. Zhuk, V. Olijnyk, Ye. Polat, etc.).

Several theoretical methods: analysis of research problems in scientific publications; study of the experience of using electronic social networks in the learning process, methods of comparative analysis, methods of mathematical statistics for processing quantitative characteristics of phenomena under research are used in the study.

Results of studies of national and foreign educators and researchers (T. Arhipova, Ben Romdan Sami, H. Kuchakovska, N. Tverezovska, I. Vylegzhanina and others) prove sufficiency of chosen methods of study and urgency of an issue.

5. RESULTS AND DISCUSSION

For 20 years the study of the structure and functioning of learning environments with the use of information and communication technologies (ICT) has been urgent. Experts of various disciplines: technical, physics and mathematics, pedagogical and psychological, take part in them. Innovations in pedagogy can not be considered in isolation from changes in society in general.

Environmental factors are objective conditions that occur independently from the institution, student and teaching staff, influencing it.
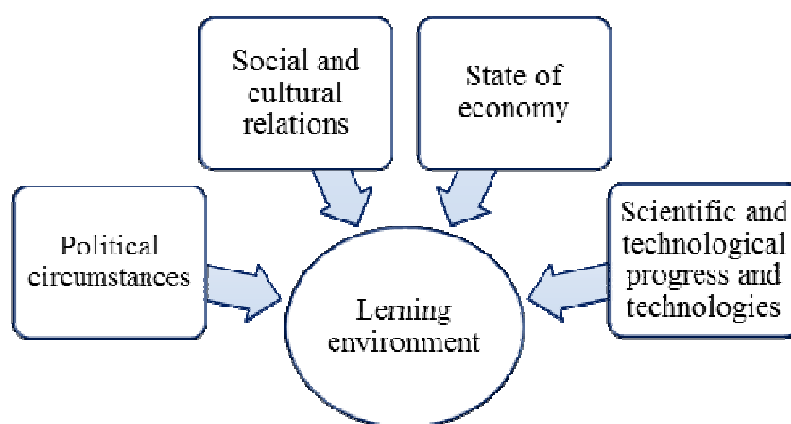
Fig. 2. Factors of indirect effect on the development of modern learning environment.

Electronic social networks are widely used today in the life of many people, their popularity is growing rapidly, that is indicated by numerous statistical reports of Internet companies, including site «Alexa's digital marketing tools» (http://www.alexa.com/).

5.1 The issue of Social Media classification

In general, the classification of social media is conventional enough. There is no such thing as universal, applicable throughout the international community classification. Sometimes, a resource can not be labeled with any category. Thus, electronic social networks can be considered as a form of social media, along with services for texts publication (microblogs, news feeds, Wiki-services) and services to share content (photos, videos, links, music, documents) services for discussions, services related to business, geolocation and game services.

There is a classification that refers ESN to communication services, along with multimedia, collaboration, reviews and author's points of view, entertainment services. According to those views communication function is provided by: blog services (Blogger), microblogs (Twitter, Yammer), own ESN (Facebook, Vkontakte, Odnoklassniki, LinkedIn), events discovery service (Eventful).

According to others, the classification of ESN can be reduced to four types: professional social networks that were created for jobseekers and employers; blogging network; dating sites; sites for finding people.

We share the opinion that the blogging platform (Blogger, Twitter), discussion forums, multimedia networks (Instagram, Youtube, Flickr), social media projects, social bookmarks are separate types of ESN along with professional social networks, thematic and educational social networks, research and universal social networks (Facebook, Vkontakte). All of the above have a common ESN functionality, which includes: creation of individual profiles, interaction, the ability to achieve common goals through cooperation, resources sharing.

Didactic value of ESN is determined by the means for group interaction that can become means of joint learning activities, as well as means of social contacts вумудщзьуте and expansion of social interaction.

5.2 Some Quantitative Indicators of Positives and Negatives of ESN in Education

Accordint to the overwhelming majority of parents, the Internet, specifically ESN is still "big, bad wolf". According to 57% of students [8] use of social media made them less productive, students spend a lot of study time, ESN encourage to protraction and postponement.

However, social media is multifacet, it has their pros and cons, it has revolutionized many industries, and eventually it has run through the educational system. In the USA 93% of school senior pupils have their account on Facebook, 25% of online time student spents to attend ESN, 46% of teachers use social video and podcasts as an educational addition to their lectures.

College students find ESN as a comfortable environment, a platform for ideas production and understanding (insights among themselves), they highly appreciate opportunity to discuss, join in groups, cooperate to perform learning tasks, receive academic support from their peers. 2/3 of students reported about using media in educational process in the classroom or while doing homework.

More than half of them report that they use ESN to search information of educational content, solve problems in finding various texts and data to performa educational school tasks.

According to a survey of 1,277 students aged 9-17, 1,039 parents and 250 educational managers in the US, 96% of students who have Internet access, use ESN actively. More than a half of them report that they use ESN to search education-related topics, solve problems of finding various texts and data for prepartion of school tasks.
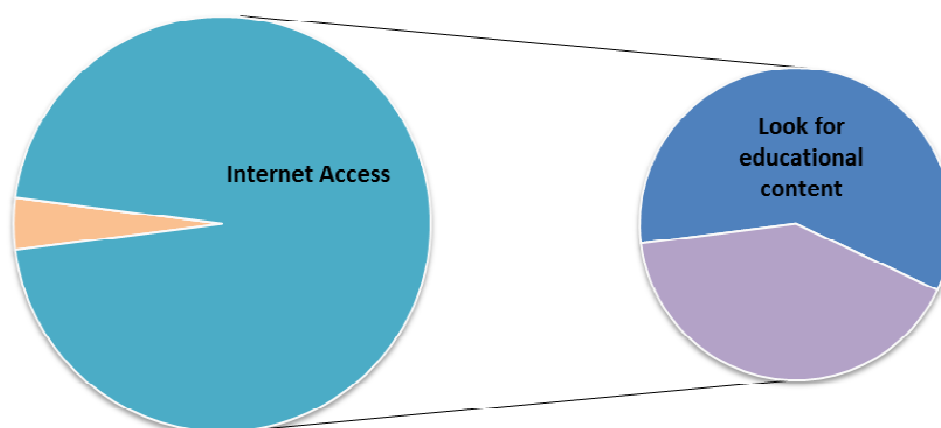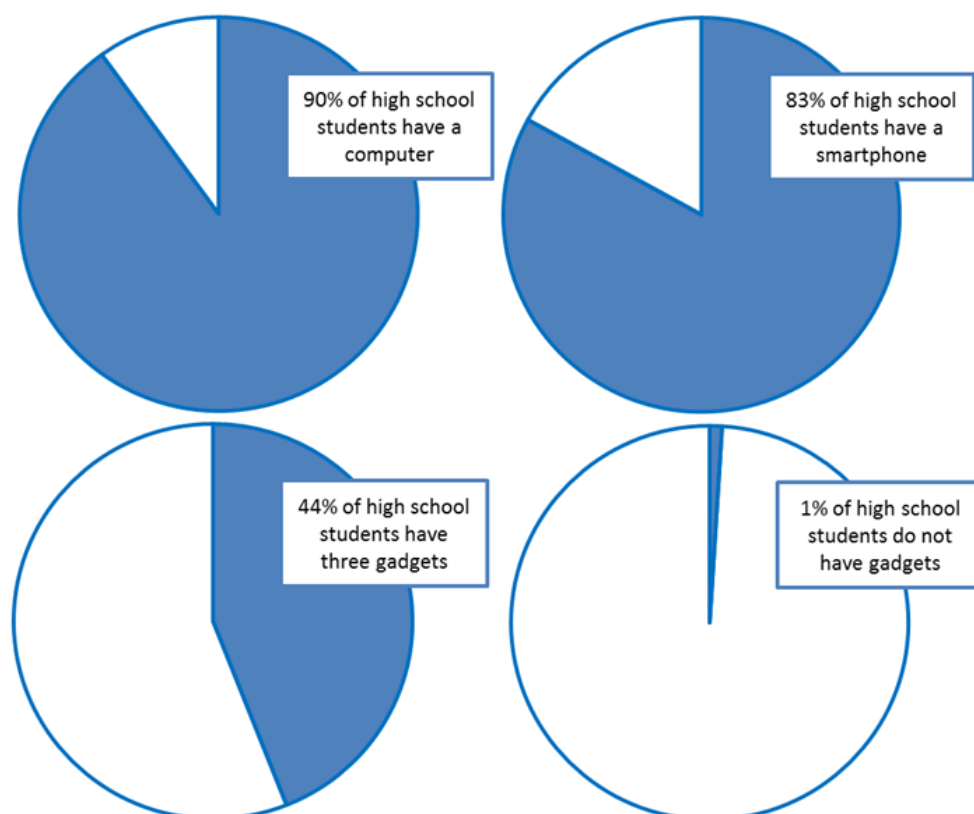

Fig. 3. Results of the survey on access to the Internet and use of ESN (National School Boards Association (NSBA), Technewsdaily.com, Grunwald Associates LLC, NPR.com; 2010).

It is estimated that 59% of students who have access to the Internet, use social networks to discuss educational issues, and 50% of students for doing homework [9].

There are no obstacles to use modern network technologies in Ukraine. 2153 student of 7-11 grades from all Ukrainian regions (except temporarily occupied territories) took part in the study "Socinform" and MyMedia [As students use media: social research "Socinform" and MyMedia (2016), http://mymedia.org.ua/] The study was conducted in the capital, regional centers, towns and small villages. School classes and respondents were chosen using random selection.

90% of high school students have a computer

83% of high school students have a smartphone

44% of high school students have three gadgets

1% of high school students do not have gadgets

Fig.4. Students possession of computer equipment.

The results showed that almost 90% of students have a PC, 83% - a smartphone, more than half possess a tablet and almost all students surveyed have Internet at home. 44% of senior pupils have three gadgets, and 1% don`t have any. The older teenagers are, the greater the chances that they have both a computer and a smartphone, and the lower that they have a tablet.

85% of students from all over Ukraine use social network "VKontakte" daily. "VKontakte" is followed by Instagram, while Facebook and Twitter are not very popular among children.

We conducted a survey (without use of computer devices and the Internet). The survey involved students and teachers both urban and rural schools (Table 1).

Table 1.

A number of respondents according to the residence

A number of residents in community	Number of respondents
over 1 million	79
from 300 000 to 1 million	78
from 100 000 to 300 000	48
from 50 000 to 100 000	8
from 10 000 to 50 000	31
from 2 000 to 10 000	109
from 700 to 2 000	40
under 700	21

It emerged that among students aged 14 to 18 using social networks (such as Facebook, VKontakte and Odnoklassniki) there were 95.2% of respondents. So, in our opinion, not to try using this tool for the purpose of studies would be wrong. At the same time, provided that only 2.2% of teachers do not have access to the Internet, only 66.3% use social networks when working with students and / or parents. We have found that teachers in their professional activity are more inclined to use ESN to communicate with colleagues (61%), to advise students on the subject (41.5%), to get information on additional resources on subject topics (39.8%), to communicate with students as class master (38.1%) and to put online homework (36.4%). Much less attention is paid to such opportunities as setting up an informal communication on the subjects' content (23.7%) and designing of joint educational projects (21.2%).

With online survey of [10] 1002 American K-12 teachers it was identified only 13% of those who included ESN into educational process. The majority of teachers (87%) have not adopted social media. However, there are opportunities for teachers to use the advantages of social media to help students understand how to use them to promote learning. Almost all (95%) K-12 teachers report that they had some level of training related to the integration of modern technology in a classroom. At the same time, more than half (62%) had minimal or no training in the field of interaction with students and their parents through ESN.

Teachers (four of five) are concerned about conflicts that may occur as a result of use ESN in learning process. One in five did not feel comfortable, as students are better with different hardware.

The study of American Federation of Teachers (AFT) dedicated to stress factors among teachers ('Why Are Teachers So Stressed?') [11] conducted in social networks, revealed the following: the first two positions among the most depressing factors are taken by the implementation of new initiatives in education - the lack of necessary training (71%) and negative reviews about teachers and other school staff on the Internet (55%). За іншими даними ще у 2010 році 27% учителів підтримували спілкування з фахових проблем у професійних спільнотах саме завдяки ЕСМ. It should be mentioned that more than 30 000 teachers were respondents of the survey. According to other data as early as in 2010, 27% of teachers support communication on professional issues in professional societies in ESN.

5.3 New Competence of Modern Teacher

In last decade the Internet has changed our vision of how teachers and students can study in the classroom. Use of digital maps and galleries removed geographic limitation to research monuments of culture and history. One can refer to updated facts on Wiki pages, or read blogs of a famous explorer. Methodical centres, schools, education authorities are able to

share and cooperate in private (closed) electronic social networks, expanding the collective knowledge and attitude to new pedagogical ideas.A new term: Education 2.0 - social networking and education has emerged. The tools Education 2.0 typically include a platform for blogs, wikis and private social networking sites. These tools allow contributing to online library of knowledge that constantly develops in the age of of Education 2.0 Internet publications and joint use of online tools durably affect future of education.

Here is an example, how to use Twitter in the classroom [12].

1. Find resources. A teacher can offer students to conduct interviews with experts during Twitter chats. Finds creative lesson plans, eduaction and reference materials.
2. Develop thinking of students. Analyze statistics of a viral tweet using Twitter Analytics. Share their thesis on learning material.
3. Engage with professional Learning Network (PLN). Use ESN to organize conferences.
4. Learn and follow modern trends in the range of your interests.

These points can be easily adapted to other ESN. World's most popular electronic social networking site Facebook can also be used as an educational tool in the quality of aditional option for increasing involvement of children and parents in the educational process.

1. Homework. When you create a group for collaboration on homework, it is important to set access rights so that group members can post their publications on the group page (share links and information with their classmates). For teachers there is an opportunity to conduct an express-test in the form of surveys on the page.
2. Preparation for a control work. Create from the group page an event page with the date and send participants weekly reminders.
3. Communication with parents. You can separately create a private group to inform parents about the latest events in the class, educational success of children, results of tests. File upload function will help to share tables with statistics.

Each modern teacher should be able to use both formal and informal teaching methods, which increasingly frequently include learning with using ESN, to achieve educational goals, and be able to support what is called dynamic knowledge of academia.Web features professional educational networks that cover a wide range of disciplines and interests and, more importantly, participate in "construction of knowledge". The narrative as a means of collective learning, as a form of communication ideas with development and spread of electronic social media, including blogging platform, gained new life.

There is a large number of sources, such as [13] which indicate the popularity of discussion of the major components of the IC-competency of secondary school teachers, which involve use of social learning and educational networks in the teaching.

Ability to use social media is closely linked with the ability to control information flow, to check facts with the skill of time control, the ability to reel, knowledge of foreign languages. [14] However, ESN nowadays is completely separate phenomenon, and their impact on us is more and more noticeable day by day.

How to form this particular skill? First, it is necessary to acquire a "culture of posting". Be attentive to what you post. How much is this information useful to other people? Secondly, any social network is just a tool. So, it is necessary to realize the peculiarities of each of them, specifics of tasks that you can perform using them (see. The preparatory phase, types of ESN). Is is possible to introduce networks division according to type of tasks. For example, you use Vkontakte to share the events of your private life with your friends, support Blog as a methodological box for lessons and student projects, witha help of Yammer you consult your student's parents, in Facebook you position yourself as an expert in a profession, and through LinkedIn you look for useful working contacts. Last in the list, but not the least

in value: it is necessary to define and limit the time when you work in social networks making posts, reading messages and replying to comments.

Each party to an educational process can gain kills of the 21st century which include skills collaboration, teamwork, self-study and self-education through activities in ESN.

Among the most important we would like to mention the most important in the 21st century social media competencies for teachers:

1. Help student use educational networking tools to solve information problems and communicate digitalyy with experts, peers and teachers.
2. Experience of major Web 2.0 tools, that are useful in the eduactional process and be aware of the tools are provided/ supported by a school.
3. Know how to use educational networking sites to communicate with colleagues, students and their parents.
4. Navigate and evaluate educational content of the Internet and educational sites, create professional content on networking sites.
5. Create and maintain with a help of ESN a personal educational networking for your students.
6. Follow network etiquette, meet ethical norms and interact with other correctly.
7. Understand copyright, security and privacy issues on social media sites and share these understanding with students.
8. Have the established need to be aware of the latest tools and applications regarding ESN trends of ICT.

By creating a "learning situations", which are focused on the use of ESN, a teacher can promote universal learning activities (personal, regulatory, cognitive, and communicative) that will provide the development of skills of independent acquisition of new knowledge and skills, formation and development of critical thinking, development of communicative skills of students. Fig. 5 outlines a design process of learning situation in conditions of ESN use by a teacher.
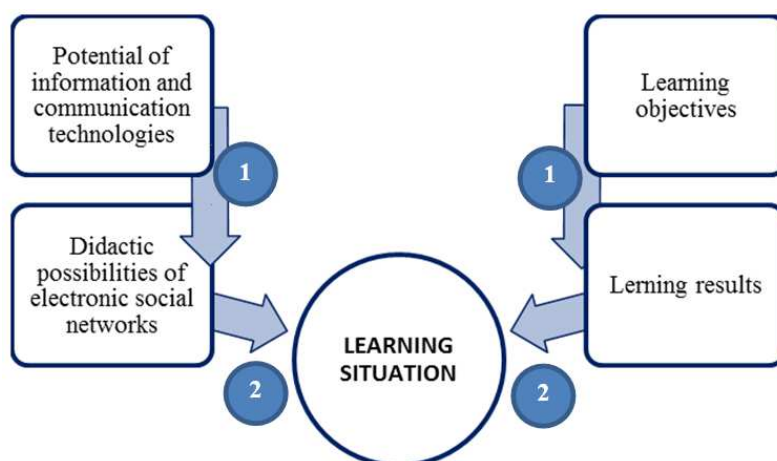
Fig. 5. A design process of learning situation (1 – specification; 2 – shaping) [5].

With ESN services one can arrange a rap session in the form of discussion when development of students' subjectively new knowledge happens by expressing their own thoughts and by comparison of opponents' views on the issue. The situation where the emotional and intellectual stimulus encourages to active thinking is created. Leaders manage the process of discussion. Usually, that is a teacher. It is he, who has to define the topic of discussion, the main question (up to five), to determine the course of the discussion; choose basic training and other materials for participants. Keeping rules of ethical behavior is necessary condition, which everyone should agree.

One of the latest trends in business success is a process of joint activities in intellectual sphere of individuals or organizations to achieve common goals at which the exchange of knowledge, learning, and as they say, agreement occur. If collaborative learning (learning in cooperation, teamwork) is perceived as a certain theory of interaction in the learning process, determining its overall direction, the cooperative learning is a means of implementing collaboration.

Cooperative learning is focused on the use of quantitative methods that take into account achievement that is learning outcomes. Cooperative learning is a structured, systematic training strategy in which small purposefully selected group of 3-5 students work together on a common goal, creating a final product that has semantic specificity. The group is inhomogeneous. The group consists of students of different levels of success, different abilities and skills. Thus, every student responsible individually for results of work and a teacher acts as an advisor of group learning process. All students in the group are responsible for the work (there is no a leader). Cooperative learning is more focused than the system of collaborative learning activities, and more centered on a teacher. Cooperative work in a group includes both successful promotion in the cognitive process of each student and breaking ice, as well as maintaining good working relationships between team members. A number of social skills: ability to listen, respect an opinion of an opponent, expressing criticism to correct errors is necessary for successful cooperative work.

Collaborative learning includes such formats as group projects, joint development and so on. In the context of e-learning, collaborative learning gained a new interpretation (computer-supported collaborative learning). First of all, it is connected with the use of Web 2.0 services, social networking apps that support mutual activity, virtual communities for the purpose of learning.

The methodological approaches, mentioned above, require "new literacy" [15] of the teacher, a higher level of information and communication competence (IC-competence). On the other hand, active use of ESN and other means of ICT in educational practice leads to gradual development of IC-competence. The teacher possesses methods and styles of information learning activity, that is adequate to the situation, that occur in the process of educational information environment development; forms skills of effective network interaction of educational teams in a global information and education space; develops competencies, needed to shape effective learning programs in open information and educational environment; learns modern tools of conceptual foresight, analytics and diagnostics of educational results.
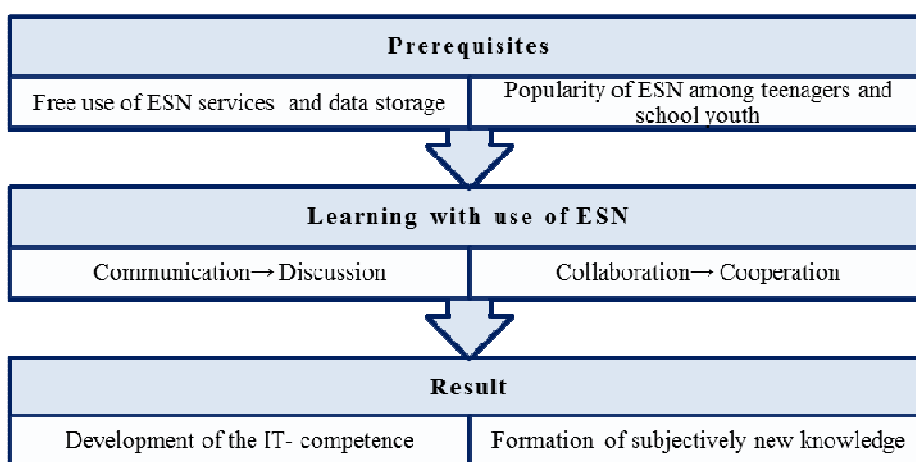
Fig. 6. Particular issues associated with ESN use learning.

5.4 Tips for Teachers how to make productive cooperation in ESN

One of the tasks of school education is to prepare for life in the modern world that is becoming more "Network-based." The competitive ability of a person is increasingly determined by its ability to use modern network correctly and efficiently.

Services ESN is a tool that is used by the majority of companies in their daily work. To describe the life cycle of the educational project in EEN we used, to a certain extent, the characteristic stages «Social Media ROI Cycle», which Pavlovskyi Y. allocated in business promotion and ROI (Return on Investment) on social networks [16].
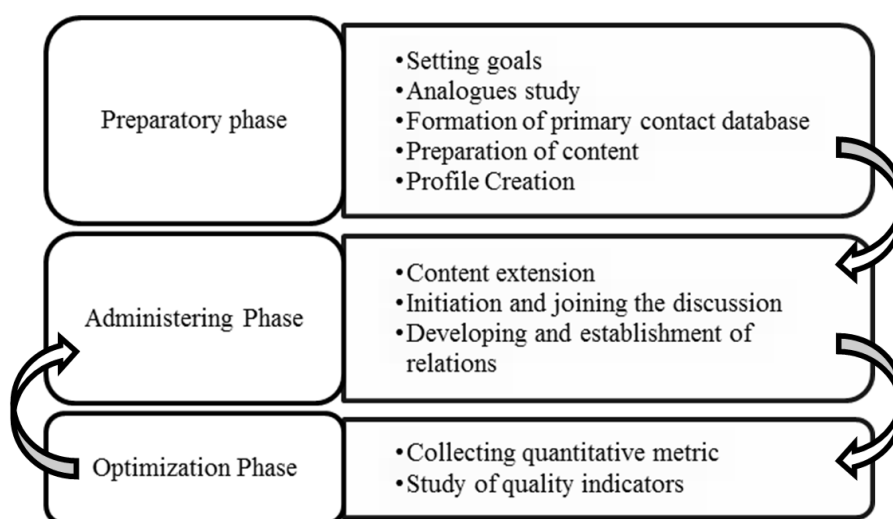
Fig. 7. Life cycle of the educational project in EEN.

Preparatory phase

Setting goals. How do ESN activities affect results of education, upbringing and self-development? What will be the main thing: cognitive process, educational impact, emotional state, establishing of cooperation, support of communication?

Analogues study. Search activity in various social networks, aimed at creating a clear picture of the possible ways to achieve the goal and search of creative ideas. Analysis of thematic groups activity, communities, events, applications, services etc. Finding the positive practices of successful experience.

Formation of primary contact database (key users) and content.

Profile Creation. All elements, including background images, messages must comply with the theme, design, age of participants.

It should be take into account that the aim of creating an educational blog for the student is the most frequently a learning project. Blog is used to send, improve, correct homework, demonstrating interests, ideas, achievements. For teacher blog is a platform to exchange experience with colleagues, library of educational materials for students, in a less degree - a way to interact with students and parents, to inform of events.

Educational Wikis are perfect a tool for an open collaboration and knowledge sharing, as they allow everyone to contribute. Although there is the opportunity to organize a discussion of certain problems, they rarely use it.

Corporative social networks (e.g. on platform Social Cast or Yammer) combine educational process participants, discussions and projects in one place. They promote a faster search of specific information, intercommunication and efficient teamwork, have high security and minimum distractions, and can prioritize work in order of importance.

Various types of ESN transfer communication and collaboration around the school subjects and educational projects beyond the classroom in real time. Unlike traditional means of communication and collaboration such as email, electronic work sheet, web conferences, ESN helps eliminate multiple inboxes

Administering Phase

Content extension. Content in the ESN can take different forms and outlines text, static images, multimedia objects. Text is commonly used to publish their opinion or share knowledge (publication). Images (pictures, photos) are used to attract attention or secure data in memory. Images should be simple, focused on fast browsing on mobile devices.

They share video content with the aim to entertain and teach. Requirements for educational videos in ESN are: high quality and short duration (2-3 min.).

Structure of publication is different in various ESN. For example, if it is a blog, the title should contain calling, attraction, keywords. Particular attention is given to the first paragraph, which announces entire subsequent text. The final and desirable is a link, social button to spread post, comments. In Facebook post is often smaller in size and leads to switching to sites and portals with more comprehensive information on the subject. Content plays a valid role - to provide information, free resources and best practices.

A post can be completed with a call for an action: make a link to another post, put questions, offer an audio to download or watching video, be the first to leave a comment, offer a survey or a game using ESN applications, invite to register for a real event.

Developing and establishment of relations. When using ESN in education issues of attracting the greatest number of participants does not arise as a general rule. However, establishing relationships between them to collaborate more effectively takes relevance. Uploading photos and videos of events, the selection of active virtual gifts inspire members of network communication.

Upgrade installations should be made regularly and consistently. Replies to comments and inquiries, as they can be an additional source of constructive feedback, are essential. ESN significantly affect the way teachers teach and students learn. Towards gaining academic knowledge and formation of key and subject competencies of students, cooperation and exchange of information rise to a new level.

ESN tools do not solve all the problems in education, but they certainly help teachers and students form communication skills, cooperation and collaboration. In terms of psychology, teacher as group administrator has a responsibility to to create conditions for:
  – positive interdependence of its members - the group is successful if all team members are doing their best to achieve a common goal;
  – activate interactions - students should support and help each other during a joint work;
  – individual responsibility for results and solution;
  – development of interpersonal skills - to trust and respect each other, be able to communicate, to prevent and overcome conflicts;
  – prevention of repressive measures - control as motivational and encouraging factor.

Optimization Phase

Collecting quantitative metric and study of quality indicators. Depending on data processing result improvement of a network (the return to administering phase) or the start of work on a new project goes on. We must consider that the level of the network is not an indicator of work. Maintaining high activity of participants and frequency of interaction is more meaningful metric.

We expect to see positive results in increasing motivation of school students in cognitive activities, forming IC- competence, communicative competence, skills of cooperative work..

It is important to emphasize that we should not expect significant impact of implemented projects in ESN on academic performance of students. A positive result would expect to see in increasing the motivation of school students in cognitive activities, forming infrared competence, communicative competence, skills of cooperative work.

In order to help teachers integrate ESN into the learning process we, in adition, recommend the following:

1. Be aware of the availability of social media in the school network.
2. If your school or area currently does not have guidelines (manuals, recommendations, and regulations) for social media use, you need to consider the question of their development.
3. Consider an idea of an international project.
4. Communicate with experts worldwide.
5. Engage your class into projects of social services.
6. Concern of student and educational institution reputation within the social network and share this understanding with your students.
7. Create and develop your personal/professional learning network (PLN) [17].

Your Personal (or Professional) Learning Network are not limited by online cooperations. Namely you choose members of the group. PLN in a natural way of continuing of self-education and lifelong learning. With ESN tools you interact with different people, with their unique experience and share your resources and ideas, find inspiration and support, learn the latest trends in education

5.5 Somewhat about mobile phones

According to recent reports, in 2016 the number of smartphone users reached two billion. The time a person spents on various operations with a mobile phone amounts to 3 hours a day. So it is quite natural, that IT companies analysts marked the increasing demand for Mobile learning.

45% of respondent kids aged 12 - 17 [18] say that cell phones allow them to feel connected to their social world. Interestingly, teens own this phenomenon more definitely than senior school students. Most children aged 12 have already had a cell phone. 73% of teens can send SMS, make calls and perform other functions without need for nstallation of special i applications. It is curious that girls are more likely to use phones. 91% of teens use phones to get access electronic social networking, messaging, and participation in video chats using Internet boards or online games. 74% of teachers believe that the use of ICT motivate learning. Parents agree to this, particular 71% believe that mobile devices offer new opportunities for learning.

Fraud is a risk of using mobile phones in the educational process. For example, 7 out of 20 high school students admit that they recourseв to cheating - storing notes, leaking test questions, looking up answers).

TOP 10 of mobile phones uses (cell phones) in include: research, snapping photos, as an e-reader alternative, chat rooms, sharing through blogs, google SMS to the rescue, mobile diaries, tracking student behavior, call a friend, scanning codes - most can be applied through ESN services.

Particular proceedings of the following researcn were made piblic on the 12th International Conference on ICT in Education, Research and Industrial Applications [19].

6. CONCLUDING REMARKS AND FUTURE WORK

In our view, some abilities of teachers could not emerge spontaneously, without purposeful pedagogical influence accounting new challenges of information age. Readiness to changes that are focused on active and effective use of ESN in their T and E activity; capacity for effective cooperation and experience exchange with teams of educators in their professional field; knowledge about new teaching methods that provide flexibility and adequacy of the implementation of new ICT in the learning are among them. Development of appropriate learning courses for teachers is an actual problem that requires solution. Guidelines for teachers are suggested to create around the following ideas: 1. The effectiveness of group interaction. 2. A need for self-development as a component of cognitive creativity of senior students. 3. A research of features of instructional design of information and educational learning environment. 4. Use of electronic social networks towards the problems solution of various educational formats synchronization and in order to build an integrated trajectory of individual learning.

REFERENCES

1. Burov, O.Yu.: Technology and innovation in human activity of the information age: information challenges and technologies (in Ukrainian). In: Information Technologies and Learning Tools, vol. 5, # 49, pp. 16–25, http://journal.iitta.gov.ua/index.php/itlt/article/view/1274 (2015)
2. Bykov, V.Yu.: Models of the Open Education Organizational Systems (in Ukrainian). Atika, Kyiv (2008)
3. Pinchuk, O.P.: Psychological and pedagogical features of environment of students e-learning (in Ukrainian). In: Bogachkov, Yr. M. (e.d.) Organization of e-Learning Environment in Secondary Schools, pp. 37–51. Pedaghoghichna dumka, Kyiv (2012)
4. Bogachkov, Yr. M., Bykov, V.Yu., Pinchuk, O.P. , Burov, O.Yu. and others: The organization and functioning of network of resource centers of secondary schools distance learning (in Ukrainian). Monograph. Atika, Kyiv (2014)
5. Pinchuk, O. P.: Historical and analytical review of social networking technologies and prospects of their use in training (in Ukrainian). In: Information Technologies and Learning Tools, vol. 4, # 48, pp. 14–34, http://journal.iitta.gov.ua. (2015)
6. The Facebook Classroom: 25 Facebook Apps That Are Perfect for Online Education". Online Colleges and Degrees, http://www.collegedegree.com/library/college-life/15-facebook-apps-perfect-for-online-education (2015)
7. 50 Reasons to Invite Facebook Into Your Classroom. OnlineCollege.org, http://www.onlinecollege.org (2011)
8. Impact Of Social Media In Education Infographic. eLearning Infographics Community, http://elearninginfographics.com (2014)
9. How Social Media Is Changing The World. SocialTimes, http://www.adweek.com/socialtimes/social-media-change-world/488305 (2013)
10. Social Media Is Failing To Find Traction In The Classroom. TeachThought. We grow teachers, http://teachthought.com (2015)
11. Quality of Worklife Survey. American Federation of Teachers, http://www.aft.org/sites/default/files/worklifesurveyresults2015.pdf (2015)
12. Teaching with Twitter. eLearning Infographics Community, http://elearninginfographics.com (2015)
13. Johnson's, Doug: Top Ten Social Media Competencies for Teachers, http://doug-johnson.squarespace.com (2010)
14. Karnaukhov, D.: Seven Skills which will Help You Not To Drown in the Ocean of Information (in Russian), http://interesno.com (2014)
15. Ovcharuk, O.V., Soroko, N.V.: Using of the teachers' information and communication competency assessment instruments in european countries (in Ukrainian). In: Information Technologies and Learning Tools, vol. 2, # 52, pp. 133–143, http://journal.iitta.gov.ua. (2016)
16. Pavlovskyi, Y.: The Ideal Plan Promotion through Social Networks (in Russian), http://happyreseller.ru (2012)
17. What Is A Personal Learning Network? TeachThought. We grow teachers, http://teachthought.com/pedagogy/what-is-a-personal-learning-network (2015)

18. e-Learning Industry LLC. eLearning Infographics Community, http://elearninginfographics.com/parents-guide-to-teens-and-mobile-phone-use-infographic (2016)
19. Pinchuk, O.: Perspective analysis of use of electronic social networks in learning environment. Proc. of 1st Workshop 3L-Person'16, Kyiv, Ukraine, June 21-24, 2016, http://ceur-ws.org/Vol-1614/paper_54.pdf

ПЕРСПЕКТИВНЫЙ АНАЛИЗ ИСПОЛЬЗОВАНИЯ СОЦИАЛЬНЫХ СЕТЕЙ В КАЧЕСТВЕ СРЕДСТВА ОБУЧЕНИЯ В УЧЕБНОЙ СРЕДЕ

Пинчук Ольга Павловна
кандидат педагогических наук, старший научный сотрудник,
заместитель директора по научно-экспериментальной работе
Институт информационных технологий и средств обучения НАПН Украины, г. Киев, Украина
opinchuk100@gmail.com

Аннотация. Дидактическая ценность электронных социальных сетей определяется через возможности обеспечения группового взаимодействия. Доказывается, что ЭСС могут стать средствами совместной учебной деятельности, а также средствами развертывания социальных контактов и расширения социального взаимодействия всех участников учебно-воспитательного процесса. Внимание уделено смене акцентов с коммуникации в сети на организацию продуктивной дискуссии, а также с коллаборации на кооперативные методы обучения учащихся. Рассматривается проблема повышения информационно-коммуникационной компетентности всех участников учебного процесса. Исследованы возможные изменения в методике обучения, когда в системе средств обучения появляются новые объекты - сервисы электронных социальных сетей.

Ключевые слова: электронные социальные сети; информационно-образовательная среда; обучение.

ПЕРСПЕКТИВНИЙ АНАЛІЗ ВИКОРИСТАННЯ СОЦІАЛЬНИХ МЕРЕЖ ЯК ЗАСОБУ НАВЧАННЯ В НАВЧАЛЬНОМУ СЕРЕДОВИЩІ

Пінчук Ольга Павлівна
кандидат педагогічних наук, старший науковий співробітник,
заступник директора з науково-есперிментальної роботи
Інститут інформаційних технологій і засобів навчання НАПН України, м. Київ, Україна
opinchuk100@gmail.com

Анотація. Дидактична цінність електронних соціальних мереж визначається через можливості забезпечення групової взаємодії. Доводиться, що ЕСМ можуть стати засобами спільної навчальної діяльності, а також засобами розгортання соціальних контактів та розширення соціальної взаємодії всіх учасників навчально-виховного процесу. Увагу приділено зміні акцентів з комунікації у мережі на організацію продуктивної дискусії, а також з колаборації на кооперативні методи навчання учнів. Розглядається проблема підвищення інформаційно-комунікаційної компетентності всіх учасників навчального процесу. Досліджено можливі зміни у методиці навчання, коли у системі засобів навчання з'являються нові об'єкти – сервіси електронних соціальних мереж.

Ключові слова: електронні соціальні мережі; інформаційно-освітнє середовище; навчання.