

The Impact of Social Networks on the Development of Students' Social Competence

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Abstract—The article analyzes the potential of virtual social networks for the development of social competence among young people. The authors discuss the results of the survey on students' use of virtual social networks for communication. To achieve the objective of the research and to determine the essence and meaning of social competence, methods of analysis, synthesis and generalization of the research were used. The observation method was used to identify the particularities of communication between young people in social networks. The questionnaire method was used to collect information about students' preferences regarding the choice of specific virtual social networks for communication. The results of the observations and questionnaires confirmed the suggestion that the amount of time young people spend communicating online and surfing the Internet is increasing. The results of the survey showed that 107 students from the first to the fourth year of studies at a teacher training university (Ukraine) often stay on virtual social networks by browsing them two to four times a day (51.4%). Nearly a third of students stay constantly on social networks. The most popular seem to be Instagram (83.1%) and Facebook (28%). With the help of social networks, students actively communicate with their classmates (80.4%), friends and family (78.5%). Further research is planned to explore ways to demonstrate how to avoid the negative effects of the Internet on students' personalities.

Keywords—Virtual social networks, Social competence, Information society, Internet

1 Introduction

The driving forces of any society are enthusiastic citizens and competitive professionals who quickly adapt to any changing situation and actively participate in state building. These people are capable of changing their own behavior and that of others according to the situation; they are able to build a constructive dialogue in the communication process, as well as avoid conflicts, etc.

Quick and effective resolution of social problems that may arise in your daily life and at work means that a person has developed social competence. This is especially true for students who are studying and at the same time preparing for future professional activities and independent living; they participate in different social events and

constantly interact with the different participants in the educational process. At the same time, social competence is an obligatory component for specialists whose professional activity includes communication and interaction with other people (such as teachers, social workers, etc.)

The social competence of young people and the orientations of their training are the subject of national and foreign research in various fields of knowledge. This work has studied the interconnection between social competence and different personal traits [1], the achievement of social goals by young people [2], adaptation in the corresponding age group, the formation of student activity [3], etc. The development of the social competence of future teachers [4-6], including those in engineering specialties [7], usually takes place in an institution of higher education where all the conditions for communication and learning are created.

In previous research, the authors have identified the importance of social competence for future teachers, determined the structure of a university of teacher education in terms of interaction with students, and sketched directions demonstrating the development of students' social competence. In our opinion, one of the promising directions is the use of virtual social networks (VSN). This is due to the exponential growth of the media possibilities offered by social networks [8], their integration in education [9-11], business and other areas [9-11]. Besides, in conditions where the Internet and information and communication technologies (ICTs) are developing rapidly, a relevant task is to provide effective communication [12, 13], interrelationship [14], social support [15] between participants in communication through VSN.

Despite the available scientific work, we consider it necessary to update research on the development of students' social skills at a time when virtual social networks are spreading so rapidly.

The objective of this article is to analyze the possibilities offered by virtual social networks for the development of students' social skills in a teacher training university; to analyze the possible negative consequences of an excessive presence on the Internet and social networks; and to highlight the main directions to avoid them.

2 General Research Context

2.1 Social competence as an important component of today's specialist's activity

Social competence is one of those important personal characteristics that starts to form nearly from birth and develops throughout life. While determining the essence of social competence, researchers pay attention to the set of knowledge, skills and abilities, forms of behavior, a certain attitude to social events and phenomena. Social competence allows individuals to perform different social roles, interact with people and various social groups, perform professional activities effectively, achieve constructive dialogue, avoid conflict situations or resolve them in time.

In the process of social communication, we can observe sharing of experience and certain features of national culture. Also, it reflects the attitude of the individual to

various problems and phenomena. In addition, while communicating one can notice a direct two-way influence on the behavior and activities of the interlocutor or a group of people [12].

The analysis of research works by [4, 5, 16] makes it possible to determine a list of competences and personality traits which are part of the structure in future specialists' social competence:

- Knowledge of the essence and place of social competence among other competences
- Developed social and emotional intelligence
- Formation of personal behavioral strategy according to the situation
- Performance of social roles in a team, society
- Knowledge of methods of verbal and nonverbal influence on personality
- Critical assessment of one's own potential, responsibility for one's actions
- Ability to work in a team, taking into account the provided social rights and responsibilities
- Knowledge of the code of conduct and special terms for feeling comfortable in the professional sphere
- Ability to be critical of information
- Understanding the importance of self-improvement and self-development
- Tolerant attitude towards other people, the ability to understand their problems

Social competence is important in adolescence when an active process of personality formation is taking place on the basis of certain ideas about the surrounding society and the rules of behavior that were formed in preschool and school age. With age, the range of social skills expands, and the forms of behavior become more complex. The degree of social competence development affects self-esteem, the ability to establish interpersonal relationships, academic performance, emotional well-being and the absence of psychological disorders [1].

In our study, we focus on students whose age range is 17 to 21. This period is characterized by the following indicators and properties: significant psychophysiological development, awareness of one's place in society, the emergence of promising areas in life and professional growth, active position on the expression of civic opinion, participation in various political, educational, national activities.

In the process of educational activity, the social competence of students is manifested in different situations:

- Team work on solving educational tasks
- Avoidance and resolution of conflict situations during training
- Participation in self-government bodies. Here, the position of authorities plays an important role on ensuring a student-centered approach and partnership relations between students and authorities
- Raising one's own rating among group mates and teachers, which is one of the prerequisites for professional and personal growth

- Reports at scientific events and conferences, participation in educational and sports clubs that helps to develop communication skills, demonstrate personal vision of social problems, and form friendly relations with other people
- Volunteering, including participation in various flash mobs, helping the elderly, raising funds for medical treatment, etc.

An essential condition for the development of social competence is direct interaction with the environment (peers, the older generation, strangers, social institutions, authorities, etc.). The effectiveness of social development depends on the number and variety of social situations in which an individual uses the whole arsenal of social competences and behaviors. A. Ryan and S. Shim distinguish three options for social behavior depending on the expected goal. According to the goal of social development, the individual can form new social competences and improve the acquired ones. Thus, we can observe a process showing the rise in the level of social competence and improvement of social skills. According to the social demonstration-approach goal, the individual uses and demonstrates the acquired social competences to solve certain tasks. Avoiding situations that cannot be solved with the help of acquired social competences is the basis of social demonstration-approach goal [2].

Promising directions for providing communication between the participants of the learning process in a separate mode are chat bots [17], various programs, instant messaging tools (Telegram, Messenger, Viber), remote communication tools (Skype, Zoom), and mobile technologies [18]. They can provide either “one on one” communication mode or communication between a group of people; they can help in solving household and educational problems, and they can increase the social competence level. At the same time, the effectiveness of these technologies and software depends on the Internet quality and students/teachers' ability to use these technologies.

2.2 The importance of virtual social networks for students

Rapid technological development and the emergence of the Internet have led to the evolution of society where information has become one of the main resources of human activity. The positive features of information society include the provision of free access to global information arrays, the emergence of distance education, STEM education [19], massive open online courses [20] and cloud technologies, the development of automated systems and services for data processing, a significant increase in vacancies related to IT-technologies and services.

As a result, today much attention is given to the processes of accumulation, processing and transmission of information, and most traditional areas of national economy use ICT to increase their competitiveness. All this is happening due to the expansion of information services and the range of potential customers [21], increase in the ways of providing users with information [13] about services and goods, the emergence of e-commerce, the possibility to pay with electronic money, etc.

In essence, information society has a social basis connected with technological, economic and political decisions. Under these conditions, there is an increase in the number and quality of communication processes. At the same time, information and

communication technologies significantly affect the nature of communication between people, organizations, states, etc.

In our opinion, almost every citizen is aware of the importance of information for personal development, professional duties, educational activities, communication, etc. Gradually, users of the online environment are developing a certain information culture; their thinking and behavior are undergoing certain transformations. The individual creates his/her information worldview, develops competences required to work with modern technologies, and accumulates life experience.

One of the technological steps that significantly influenced the development of information society was the emergence and gradual expansion of the Internet. The WWW has removed restrictions on age, place of residence, social status, financial capacity of interlocutors; it has significantly increased opportunities for communication and social adaptation in the information space. Owing to these advantages, communication processes have qualitatively changed their characteristics, namely: they have become more globalized and diverse [12]; they give a possibility to form new connections between people [13], including commercial ones [21]; they allow us to receive psychological relief, to realize some psychological needs that cannot be demonstrated in real life [14], and they let us be involved in social, political, cultural life [22]; they have significantly accelerated the exchange of information to solve various problems, contributed to the formation of a global information society [23]; they contribute to the enrichment of users' information and general culture.

Virtual social networks are one of the means of mass communication that allows ensuring interpersonal interaction and communication at a distance, as well as forming public opinion. From the point of view of students' social competence development, they have the following advantages:

- They provide a process of communication between a significant number of users on various topics
- They enrich information culture, develop the possibility to use modern tools for communication and information exchange
- Communication in thematic virtual groups allows us to increase the professional competence of the future specialist
- Students have an opportunity to meet prominent representatives of the professional, political, social circle, etc
- Involvement of the virtual community in the evaluation of its own creative, scientific, sports and other achievements helps to increase self-esteem and generate new ideas
- Friends on social networks can help in reality

One of the benefits of VSN is the accumulation of information about a large number of other people's life situations that have previously been resolved in some way. In this case, an individual can use the vast life experience of many users to solve his/her own problems. According to the study by [15], social support in virtual space will give a possibility to implement health-protective functions and avoid possible negative consequences for the individual. Researchers distinguish the following types of social support: a) emotional support which is embodied in compassion, trust, kind-

ness to the interlocutor; b) support for evaluation which helps to increase the level of self-esteem and provide feedback; c) information support which includes advice, suggestions and useful information that can be used to solve problems; d) instrumental support which is financial assistance to a person in need.

In the student environment, social support helps to avoid disappointment while getting accustomed to the educational conditions, as well as while providing supervision in order to perform learning tasks, or while creating possibilities for social interaction [24]. At this, social support can be realized between different participants of the learning and educational process (students, teachers, tutors, staff at the Deans' office, etc.).

Special attention should be paid to the possibilities of VSN in the context of educational activities. In the case of a particular student (or pupil), they have the following advantages:

- A possibility to create a comfortable educational environment
- A variety of services to process educational information
- Creation of conditions for group activities, assistance with educational tasks provided by teachers or group mates
- A possibility to exchange multimedia information between the participants of the educational process to provide better communication, encourage students in studies [8]
- A possibility to organize lifelong learning through the use of various forms of feedback [9]
- Access to a significant amount of educational material distributed by classmates, teachers and other categories of educators
- Tracking the history of events displayed on virtual social networks for compiling reports

In the case of a significant number of people, VSN have contributed to the formation of educational thematic groups that bring together teachers, educators, authorities of educational institutions, and students in order to meet their information needs. In addition, such educational communities are a kind of public self-government that interacts with the government and other social groups [10].

The socialization of the individual in the digital space (cyberspace) is characterized by contradictions and ambiguity of influences. On the one hand, it is possible to become more socially significant than in real life [22], to meet personal needs that are not available or do not exist in reality [25].

On the other hand, the negative impact of the virtual environment can lead to anxiety, depression, destruction of the individual's culture and consciousness. The negative phenomena that can occur as a result of Internet-obsession include: perception of digital gadgets and computer technology as "living" organisms, the loss of which leads to strong negative emotions; dependence on online games that can lead to partial or complete immersion in virtual reality, loss of connection with the real world [23], unhealthy diet [22], considerable expenditure on upgrading the game account, etc.

As a result, the influence of the Internet, including VSN, on students' personality in the course of studies should be considered as a combination of advantages and disadvantages, the significance of each of them for the future specialist.

3 Methodology

The research is aimed at determining the possibility of using VSN for the development of students' social competence. A complex of methods was used in the research. The method of analysis, synthesis and generalization of research works was used to determine the essence, importance and content of social competence, advantages and disadvantages of virtual social networks. The method of conversation was used to determine the rules of students' conduct in the process of online communication. The diagnostic method was used to determine a number of criteria, such as the frequency of VSN use, their popularity, the use of social networks for communication, training, etc. Mathematical methods were used to process the results of the questionnaire.

The recipients were 107 students in Year 1-4 of the Philological Faculty at Bohdan Khmelnytsky Melitopol State Pedagogical University (Ukraine). While taking certain courses, students were offered to communicate with the teachers and peers partially via the Internet. For this purpose, we used VSN, systems of distance learning and software for fast message exchange. According to the hypothesis, communication via the Internet helps students develop their communication skills, increase social and informational competence.

In order to identify the impact of virtual social networks on the development of students' communicative and social skills, as well as on the expansion of their social environment, we conducted a survey among them. Almost all questions were closed-ended, i.e., they gave students the choice of one or more answers without the possibility of giving a personal response (see Table 1).

Table 1. A series of questions for the survey

№	Questions	Type of test	Several answer options
1	How often do you visit social networks?	The closed test	-
2	Which gadgets do you mostly use to access virtual social networks?	The closed test	+
3	Which social networks are you logged in?	The closed test	+
4	What virtual social networks do you use most actively?	The closed test	+
5	What do you most often use virtual social networks for?	The closed test	+
6	Did virtual social networks help you learn better communication with people?	The closed test	-
7	Does communicating on virtual social networks allow you to learn a lot?	The closed test	-
8	Have you made many friends and found like-minded people through virtual social networks?	The closed test	-
9	Who do you most often talk to on social networks?	The closed test	+
10	Do you have blocked users?	The closed test	-
11	Do your social media logins match or partially match your name?	The closed test	-
12	Do your social media logins match or partially match your surname?	The closed test	-
13	What are the negative consequences, in your opinion, of the constant being on social networks?	The open test	

In order to collect and process the responses, we used Google forms that students filled out at home after receiving a link to Viber or an email. In addition, some students responded to questions in class during the communication. The data obtained was grouped by question and calculated as a percentage of the total number of respondents.

4 Results and Discussion

In order to find out the frequency of visiting VSN by students, they were asked a question “How often do you visit social networks?” Students were given several answer options. The results of the survey are shown in Table 2.

Table 2. Frequency of visiting social networking sites

Answer options	Number of students	Percentage of the total number, (%)
I visit social networking sites 2-4 times a day	55	51.4
I am constantly on social networks	38	35.5
I go to social networking sites once a day to look through posts and read messages	7	6.6
I go to social networking sites several times a week	4	3.7
I am not on social networks	3	2.8

The survey results show that a considerable number of young people either constantly stay online (35.5%) or visit social networking sites from time to time (51.4%). A similar suggestion is proved by other researchers who connect the frequency of being online with the time the users spent there. For example, according to the research by [26], more than 50% of students stay in social networking sites for more than 2 hours. In his work Yu. Danko [14] notes that the average length of users' daily stay on virtual social networks is about 3.5 hours. According to R. Motsyk's [25] research, in 2015 54% of young people were online for up to 3 hours a day, and 31% of respondents said that they were on the Internet from 4 to 6 hours every day.

In our opinion, the increase in time spent on the Internet, in particular on virtual social networks, is due to the following factors:

- The wide use of powerful digital gadgets among young people
- The availability of the Internet via Wi-fi, or cell phone operators
- The reduction of time spent on other activities (countryside walks, doing sports, helping parents about the house, etc.)

According to our surveys (see Table 1, question No 2), the most common digital device among students, through which they communicate on social networks, is a smartphone (96.2%) (see Figure 1).

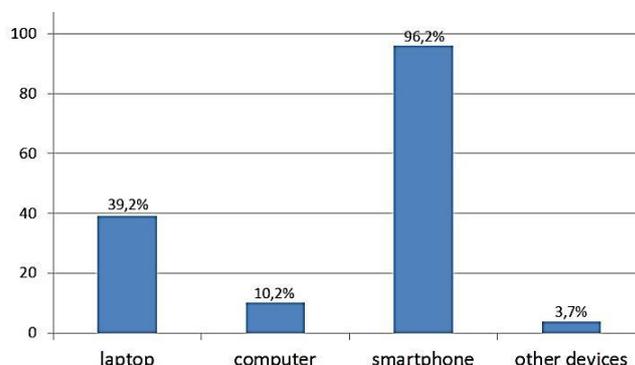


Fig. 1. Students' use of digital gadgets

In order to find out which VSN students use, they were asked a question “Which social networks are you logged in?”. In order to identify the most popular virtual social networks among students, they were asked a question “What virtual social networks do you use most actively?”. The results of the survey are shown in Table 3.

Table 3. Ranking of social networks among students according to their popularity

Social networks	Registered students (number)	Percentage of total number of respondents	Relevance among students (number)	Percentage of total number of respondents (%)
Instagram	96	89.7	89	83.1
Facebook	80	74.8	30	28.0
Vk	76	71.0	21	19.6
Twitter	21	19.6	8	7.5
Ok	14	13.1	4	3.7

The analysis of the results reveals that students are registered in various virtual social networks. The most popular, from the students' point of view, are Instagram (83.1%), Facebook (28%) and Vk (19.6%). The obtained results differ from the similar research [26] conducted at the universities of Oman where the most popular social networking sites appeared to be Facebook and Twitter. The difference between the survey results can be explained by the regional context, as well as a sample of social networks.

After having a talk with the respondents, we can conclude that Facebook is a fairly new social network for them, as they used to be in Vk. In our opinion, Facebook is a more academic network, which involves creating posts, discussing various issues, including social ones. In addition, Instagram is considered to be a social network for young people where they can post their own photos and videos, view multimedia of other users in a convenient form.

In order to identify the importance of social networks, the students of the Pedagogical University were asked a question, “What do you most often use virtual social networks for?” The students could choose several answers from those suggested. The results of the survey show that 93.5% of the respondents use social networks to com-

municate. Also, virtual social networks are used for entertainment (58.1%) and learning (41.9%). As for using social networks for work, higher education students do it least of all (12.9%).

At the same time, 86.9% of students (93 respondents) agreed with the statement “Communicating in virtual social networks allows you to learn a lot”. So, we can conclude that more than $\frac{3}{4}$ of students believe that being on VSN helps them to develop their own social competence and communication skills.

While determining the impact of social networks on students B. Bijari et al [11] found out that students mostly use social networks to communicate with old friends and for entertainment. Our survey (see Table 1, question No 9) results show that students use social networks mostly to communicate with family, acquaintances and groupmates than with teachers and users who they have not personally met. The results of the survey are presented in Figure 2.

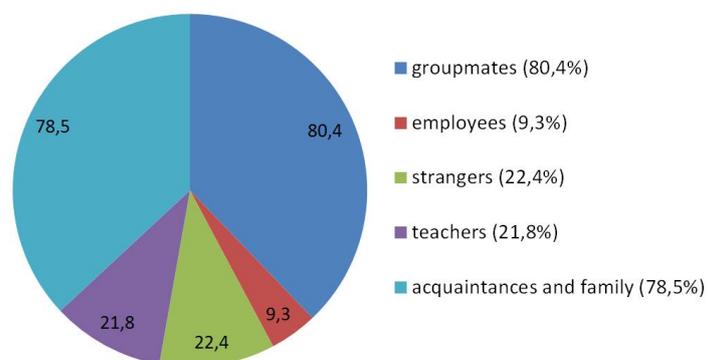


Fig. 2. The user groups with which students communicate on virtual social networks

According to research by P. Valkenburg and J. Peter [27], 46% of adolescents aged 10-17 years easily befriend new people on the Internet. In the course of the experiment, the researchers focused on two opposing options (optimistic and pessimistic) of social compensation theory. The first means the emergence of significant advantages in the online communication process, while the other implies a negative impact on the identity of Internet users.

In order to check the positive impact of virtual social networks on the identity of students, we asked them to answer several questions (see Table 1, questions No 6, No 7, and No 8). 50.5% of respondents confirmed the positive dynamics in terms of expanding the number of interlocutors and friends on the Internet. According to the survey results, 77.6% of respondents learnt how to communicate better with people around. At the same time, 86.9% of students (93 respondents) agreed with the statement “Communicating on virtual social networks allows you to learn a lot”. The conversation with students during the classroom work confirmed that the constant use of digital gadgets and VSN for learning and communication allowed them to develop their own information culture and to increase the level of media literacy. So, we can conclude that more than $\frac{3}{4}$ of students believe that being on VSN helps them to de-

velop their own social competence, as well as to develop communication skills and improve information culture.

In terms of identifying the degree of personal identity (see Table 1, questions No 11, and No 12), more than half of the respondents answered that their logins on social networks either coincide or partially coincide with their surname (58.1%) and name (64.5%). The results show a sufficient social identity of higher education students who identify themselves with themselves in cyberspace. At the same time, 48.6% of respondents gave an affirmative answer to the question “Do you have blocked users”? This result confirms the opinion that not all users on VSN are good and polite friends who are ready to help and give advice if necessary.

Among the main negative consequences that can occur in the case of constant stay on social networks, students (see Table 1, question No 13) pointed out the following ones: impaired vision, reduced time for other things, distancing from reality, and reduced live communication.

The generalization of the survey results let us to identify both the advantages of VSN use for the development of students' social competence and possible negative consequences which can occur as a result of constant being on the Internet (Table 4).

Table 4. Advantages and possible negative consequences of using VSN

Advantages	Negative consequences
Improvement of information culture and media literacy	Increase in the amount of time spent in virtual space
Increase in possibilities for communication and learning	Reduced live communication
Increase in possibilities for entertainment	Game addiction, physical and mental stress
Increase in popularity in cyber space	Loss of self-identity
Increase in a number of friends and followers	Weakened protection against strangers, fraudsters
Possibilities for self-realization	Losing sense of reality

We emphasize that it is possible to avoid the negative consequences of VSN use. In this case, there are more advantages of VSN use for the development of social competence than potential threats.

In our opinion, one of the main ways to avoid the negative consequences of VSN use is to reduce the number of hours spent daily on staying and communicating in virtual space by means of any digital devices. It is much better to spend the spare time on real communication, sports, physical work, household chores, etc. In order to reduce the load on the brain, it is good to use appropriate digital technologies and devices related to the processing, accumulation, and transmission of information.

When we speak about being on virtual social networks, we agree with the opinion of W. Sherchan et al., who pay great attention to the users' trust in social communities. Within a group of like-minded people, you can reveal your abilities, follow the rules of conduct adopted within the social community, and build an open dialogue between its participants on the principles of mutual respect and tolerance [21].

We should not forget about the formation of certain information culture in users, a responsible attitude to their own actions on the Internet, organizing events aimed at

preventing the computer and Internet dependence in higher education institutions. Only complex propaedeutic actions will lead to the desired result – the development of prosocial and active young people who feel free in the information society.

It is worth noting that further research is required regarding the negative consequences which students might demonstrate as a result of staying on social networks.

5 Conclusion

The process of social communication which takes place at a higher education institution and which is expressed through various forms of communicative interaction gives a possibility to form a certain social environment inside the academic community.

The influence of information society, especially communication on virtual social networks, ought to be studied from the opposite sides. On the one hand, there are the facts which prove the positive effects of online environment on the development of young people's social competence, their communication and interaction with the surrounding world. The online environment provides an opportunity to communicate freely at a distance, share digital data, solve working and learning tasks, etc. On the other hand, one can observe the negative effects on people when they spend too much time on VSN. All these cause physical and mental distress, negative emotions, waste of time, etc.

The survey results show that 107 students in Year 1-4 often stay on virtual social networks browsing them from 2 to 4 times a day. Almost a third of students constantly stay on social networks. The most popular ones appeared to be Instagram (83.1%) and Facebook (28%). Besides, students are registered in several social networks simultaneously. A considerable number of respondents admitted that virtual social networks helped them to find new friends (50.5%), to have better relations with society (77.6%), to obtain new knowledge (86.9%). At the same time, 48.6% student accounts contain blocked users, and it indicates the presence of unwanted interlocutors. Moreover, as a result of constant stay on the Internet such negative consequences might appear as mental overload, lack of live communication, etc.

In our opinion, the use of social networks in educational activity must be substantiated from the didactic and psychological points of view in order to avoid possible negative consequences. Further research is planned to analyze the influence of VSN on certain components of students' social competence at a teacher training university.

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