Research Article

Social Networks as a Phenomenon of the Information Society

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Abstract

Social networks, which emerged due to the rapid development of modern telecommunications and information technologies that led to the emergence of the Internet, can be viewed as a phenomenon of the information society. In a short time, there has been both quantitative and qualitative growth of social networks, which have become a common phenomenon in our life and the dominant way of communication of social groups in the Internet space. The article tells about the history of the emergence and development of social networks, presents a classification following their primary functionality, discloses and gives characteristics to the main opportunities that they provide to the information society. The article analyzes and compiles a popularity rating (by the number of active users) of social networks in the world and Ukraine, analyzes the motives of users visiting social networks in Ukraine and examines the main age groups by the activity of using social networks, and analyzes the development and causes of failures of Ukrainian social networks.

Keywords: Facebook; Information society; Instagram; Instagram; Social network; Tik Tok; Twitter.

1. Introduction

In 1995, Randy Konrad created Classmates.com, the first social network in the modern sense, allowing users to create accounts based on their personal information and communicate with each other. The concept turned out to be so in demand that it caused the emergence of several dozen similar services. This year can be considered the beginning of the development of social networks on the Internet. Still, the peak of the heyday of social networks came in 2003-2004, when Facebook, MySpace and LinkedIn were launched. This social media format was one of the first to offer users to create a free personal mini-site with content created by the user himself. Since its inception, social networks have developed mainly quantitatively, striving to reach as many recipients of information as possible. Today, social networks have become commonplace, but they continue to be on the wave of immense popularity, and this, in turn, inevitably leads to their rapid growth (Babenko *et al.*, 2019; Bashynska, 2012; Baccarella *et al.*, 2018; Kudrina *et al.*, 2019).

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As of January 2020, the list has 250 social networks and continues to grow. Ukraine, which is part of the world community, certainly does not stand aside from the processes of creating a global network society. The problematic of the study and its relevance is due to the apparent emerging contradiction between the general globalization of the world community and the regional interests of Ukraine, which makes us look for ways to develop Ukrainian social networks.

2. Theory

No one doubts the value of information in modern society. Nowadays, data is becoming one of the strategic resources for any state, and in terms of the scale of use, it is comparable to the use of traditional remedies. Information is one of the critical resources of the economy, and access to it is one of the essential factors in the country's socio-economic development. The relevance of the information is so high that on March 27, 2006, the UN General Assembly adopted Resolution A/RES/ 60/252, which proclaims May 17 as the International Day of the Information Society.

Modern society, according to D. Bell, "can be considered as postindustrial" (Bell, 1976).

Bell, analyzing the development of civilization from social progress, created and developed a postindustrial theory, according to which three great eras can be traced in the history of the development of human society: "pre-industrial – industrial – postindustrial society".

The division of social progress into three eras is based on the following criteria:

• By the primary production resource
• By type of production activity
• By the nature of essential technologies (Galkin *et al.*, 2019; Kwilinski *et al.*, 2019; Liss, 2019).

So, according to the leading production resource in a pre-industrial society, these are raw materials; in the industrial sector – energy; in postindustrial – information. By the type of production activity, it is mining and manufacturing in a pre-industrial and industrial society; in a postindustrial community, sequential processing. Essential technologies in the pre-industrial period are characterized as labour-intensive; in the era of industrialism – as capital-intensive; in a postindustrial society – as knowledge-intensive.
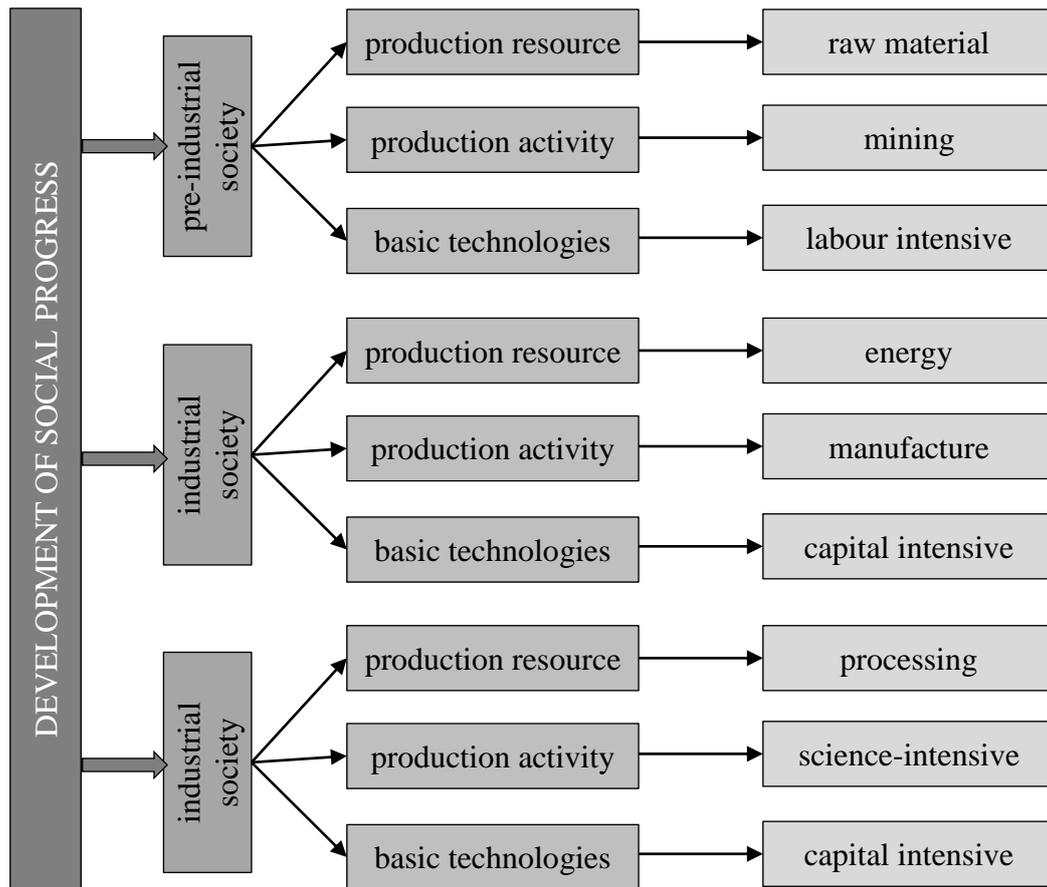

Fig 1. Development of civilization from postindustrial theory

Today's human society is an information society, the main features of which are employed in the production of information and information services, the use of information as the most important strategic resource of society in almost all spheres of life – in the economy, education and culture, and using Internet technologies to interact with each other. The transition from an industrial to a postindustrial society, in which the indisputable value of information is at the forefront, contributed to the rapid development of modern telecommunication and information technologies aimed at improving the processes of redistribution and transmission of data, which ultimately led to the emergence of the Internet (Hrabovskyi, *et al.*, 2020). The Internet has laid not only the technical possibilities for the rapid transfer of information but also changed the idea of the

communication process itself. Information and communication technologies have contributed to the development of communication capabilities that allow for virtual interpersonal interaction in real-time, which led to the emergence of virtual social networks, which can be considered as a phenomenon of the information society.

The concept of "social network" appeared in the work of the sociologist Barnes J A. "Class and committees in a Norwegian island parish" in 1954 and had nothing to do with the Internet and the information society (Barnes, 1954). He considered the term social network as a social structure consisting of many agents (individual and collective) and relationships between them. With the advent of the Internet, the theory of "social networking" was embodied in the first social networking site, Classmates.com. A social network as a phenomenon of

the information society can be considered as a platform, online service or website, the content of which is created by a user registered in them, and can be considered as a specific form of implementation of social communication in the Internet space, where the production and exchange of information become the main processes.

Since the end of the last century, there has been a significant dynamic in the development and growth of virtual social networks in which virtual communications are carried out. Social networks, which emerged relatively recently, have experienced a social boom and are now commonplace and an integral part of the information society. There is a vast number of social networks on the Internet now, and they are continually growing and developing, both extensively and intensively. At the beginning of 2020, the number of users of social networks in the world exceeded 3.8 billion people, which is 9% growth compared to 2019 and their number will grow, which is also facilitated by the trend of the active transition of people to use social networks from mobile devices. In economically developed countries, the share of social network users reaches 98-99% of the population (Digital, 2019).

As of January 2020, the list includes about 250 social networks, which can be conditionally classified according to their main functionality: by type, by accessibility, by audience composition, by territorial basis (Fig. 2).
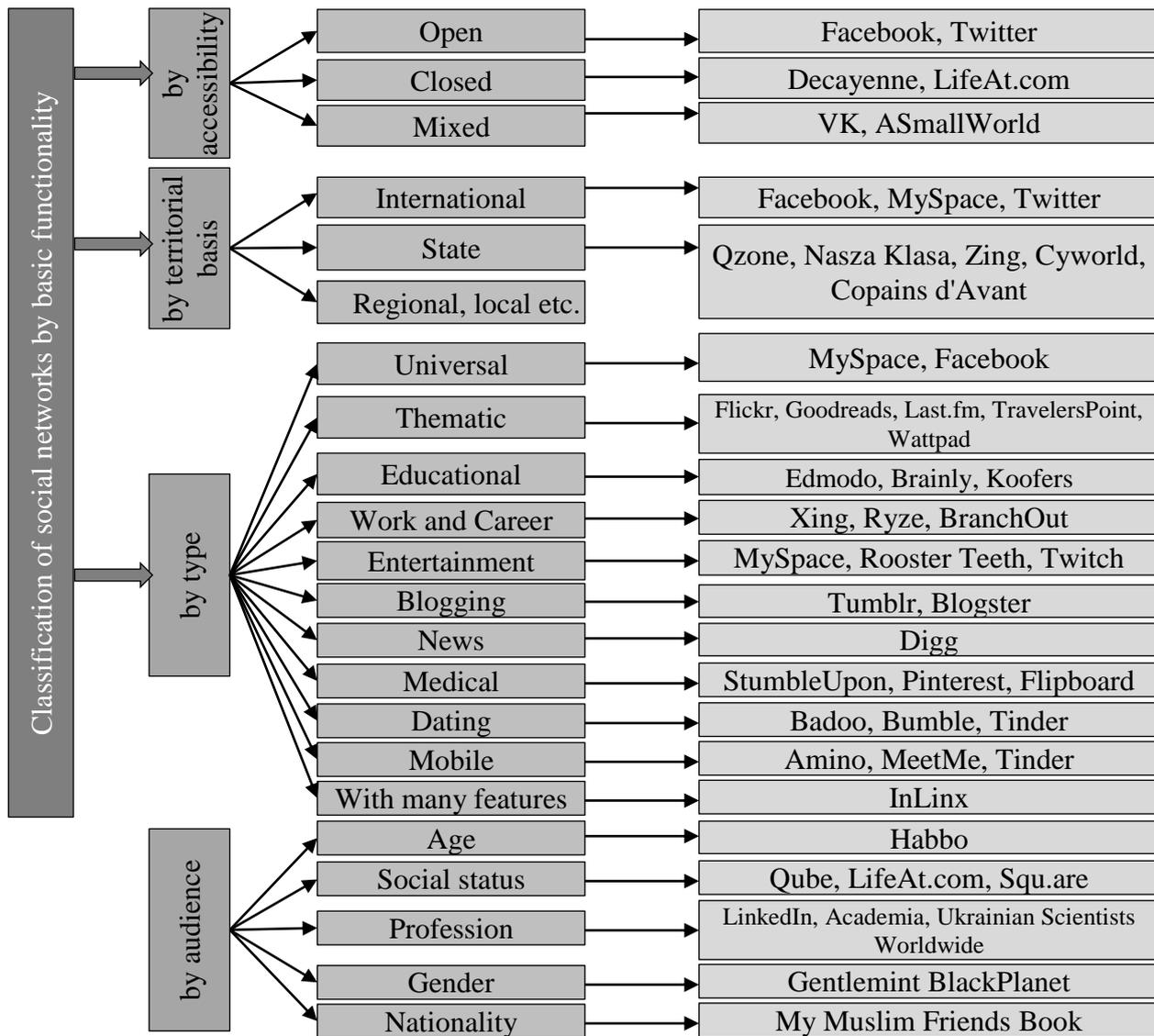

Fig. 2. Social media classification

The overwhelming majority of social networks are entirely open to the outside world, and those that belong to the closed category were not initially aimed at publicity, for registration in them it is necessary to meet specific criteria, a striking example of such networks is ASmalWorld. One of the very first exclusive European social networks, accepting only "people from the world of high art, who are defined by three parameters." You must be invited by an existing member of the network, but even then there is no guarantee that you will be accepted. The

network is run by 25-year-old Swiss Patrick Liotard-Voight. Mixed networks have not received much development, since most users are not accustomed to restricting freedom and therefore are reluctant to become participants in networks of this type.

On a territorial basis, with the emergence of global giants such as Facebook, MySpace and LinkedIn, social networks emerged as international ones, covering countries and erasing borders, and a little later, networks began to develop in individual regions and countries, often copying world giants but taking into account the needs and the specifics of your area. Now even individual cities and organizations create their social networks, for example, an internal corporate social network, which

contains all the necessary information and various methods of communication within the company or social networks of various political parties.

The most extensive classification of social networks is by type, which includes a wide variety of projects with different kinds of content and for various purposes.

After analyzing this classification, conclude that almost all the main topics are reflected in particular social networks, and rapid development continues only in certain niches, in which thematic social networks are actively appearing, including a considerable number of communities, each of which is grouped around certain thematic content. The saturation of the market caused this trend with common networks for all (Fig. 3).
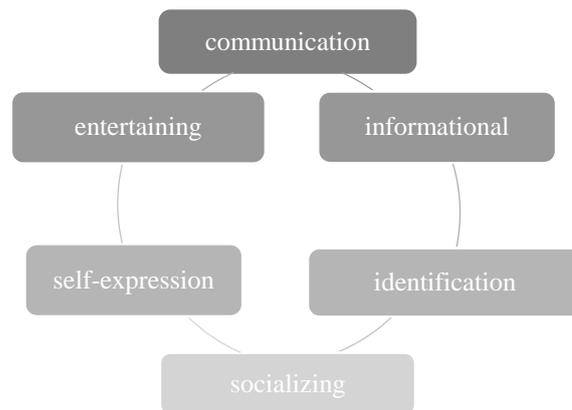

Fig. 3. Main features of social networks

From the above conditional classification, the main possibilities of social networks that they provide to the information society follow:

1. *Communication*. Virtual social networks as a phenomenon of the information society form a unique communicative space that satisfies the fundamental human need for communication, for which they were created. One of the characteristic features of a social network is sociality, when relationships between people are built easily and naturally, in contrast to the modern sociocultural space with its lack of trusting and relaxed relationships and the instability of political and economic relations between social subjects. The popularity of social networks is also explained by the ability to be free in the process of communication when the need to contact someone is carried out instantly, according to the principle "here and now". But social networks, like any other phenomenon, have a downside, the main one of which is to reduce communicative activity in real life when contacts in the network replace live communication.

2. *Informational*. For quite a long time, there have been discussions about the legitimacy of viewing various social networks as new media. But it is indisputable that in the modern information society, people have the opportunity to disseminate and consume information of interest to them through alternative, independent sources of information, which are social networks, free, unlike traditional media, from the influence of groups, classes, parties and the state that control them. The information

received via the network is available regardless of the user's location, is regularly updated, has no volume restrictions, is visual, accompanied by a large amount of graphic information (photos, videos). In social networks, the status of passive recipients of information changes to active communicators and vice versa. However, networks can become sources of inaccurate information, in part because they express opinions of people who disagree with the mainstream media.

3. *Identification*. Modern social networks offer users to indicate almost everything about themselves: name, date of birth, photo, marital status, education, information about work, interests, personal thoughts, etc., which makes it easy to search for profiles based on specified criteria. Social networks are a vast database with a wide variety of information about hundreds of millions of people around the world. In open networks, many personal data of users are available to everyone, so the security and confidentiality of information remain a critical issue for users of social networks around the world. According to GlobalWebIndex, at the beginning of 2020, 64% of Internet users are concerned about how companies use their data (up from 63% at the beginning of 2019) (Social).

4. The *socializing* possibility of social networks as a phenomenon of the information society lies in the organization of social relationships, the establishment and strengthening of social contacts between people, contributes to the socialization of the user and the

satisfaction of his professional, business, commercial, friendly needs. Users of social networks establish contacts for organizing and running a business, exchange news, information (photos, videos, audio materials), engage in active discussions on topics of interest to them, express their opinions, find like-minded people, create interest groups, leave comments on various events, exchange messages. Social networks play a huge role for people with disabilities, becoming a new means of helping to lead a fulfilling life. Social groups arise within a social network, taking into account common interests and voluntarily, and not on the formal necessity and official duties. In the process of communication within the group, rules of behaviour for community members are developed, traditions arise, moral and ethical standards are developed that underlie netiquette. However, there are negative aspects to the socializing potential of social networks. Research shows that social networks are not only replacing the traditional forms in which socialization of the individual has taken place for centuries (communication, play, learning, etc.), but also limit these types of activities in real life. A person prefers to satisfy the needs of social relationships, such as love, friendship, using virtual networks, which leads to a break with reality. There is a mismatch of network norms and values with the values of a particular society, and this, in turn, can lead to a conflict between the individual and the society in which he lives.

5. *Self-expression*. The opportunity for self-expression on social networks is another reason for their continuing popularity. Social networks are a convenient place for presenting yourself, regardless of social status, financial situation, age. Living in a society of unified production and consumption, whether it be mass-produced goods, communications, travel, education, a person has a desire to break out of the monotony of everyday life, which gives rise to the need for self-expression, in the desire to be heard. And it is social networks that provide a person with ample opportunities to express himself. For example, through the posting of your own photos and videos, through the publication of a written text, through discussions on any topics.

6. *Entertaining*. In a current State of Mobile 2020 report, App Annie analysts point out that games account for the largest share of downloads (one in five) and 70% of mobile app spending worldwide. GlobalWebIndex reports that 90% of internet users between the ages of 16 and 64 are now watching online videos every month. On the social network, the user can watch any movie or TV show he likes, find music to his liking, choose a game according to his interests.

3. Methodology

The advanced stage of development of civilization in terms of social progress, which is characterized as postindustrial, has led to the emergence of an information society with a characteristic phenomenon such as social networks. In January 2020, there were 3.80 billion social media users in the world (that's 321 million new users per year) (Social Media). "Surprisingly, now, when communicating on the Internet, the question is often asked not, "What country do you live in?", but "in what social network do you communicate?" – note the researchers (Platov, 2007). Ukraine, as a part of the world community, of course, does not stand aside from these processes.

We have analyzed the data of research conducted by sociological centres concerning social networks and user preferences, their age characteristics; data from periodicals (New York Times); user pages on social networks; visual and content analysis was applied.

As a result of our research, we compared the popularity rating of social networks in the world with the popularity rating of social networks in Ukraine.

The most popular social network in the world at the beginning of 2020 is Facebook, which currently has almost 2.5 billion monthly active users. Facebook allows you to create your profile with a photo and information about yourself, invite friends, exchange messages with them, upload photos and videos, create interest groups, and also has many other various functions with which users can interact with each other.

The second most popular site in the world is YouTube, which provides users with the ability to store, deliver and display videos. The site contains films, music videos, trailers, news, educational programs, as well as amateur videos.

WhatsApp is a popular free instant messaging system for mobile and other platforms with voice and video support. Allows you to send text messages, images, video, audio, electronic documents over the Internet (WhatsApp).

Facebook Messenger is an instant messaging and video application created by Facebook.

WeChat is a mobile communication system for text and voice messaging developed by a Chinese company. WeChat supports text messaging, voice messaging, multi-destination messaging, the ability to share photos and videos, and many other diverse functions, and WeChat's functionality is constantly expanding.

Instagram, which currently has 1 billion users, allows sharing videos and photos, as well as distribute them through our service to several other social networks.

Launched in the summer of 2018, the TikTok video platform is currently the leading short video platform in China and is becoming increasingly popular in other countries, becoming one of the fastest-growing and downloaded applications.

Table 1
Rating of the popularity of social networks in the world as of April 2020, by the number of active users (in millions)

Social network	Number of users in millions in the world
Facebook	2'500
YouTube	2'000
WhatsApp	2'000
Facebook Messenger	1'300
Weixin/WeChat	1'165
Instagram	1'000
Douyin/Tik Tok	1'000

Comparing the popularity rating of social networks in Ukraine with the global trend, we can say that Ukraine is striving for international social networks – Facebook, YouTube and Instagram (Fig. 4).
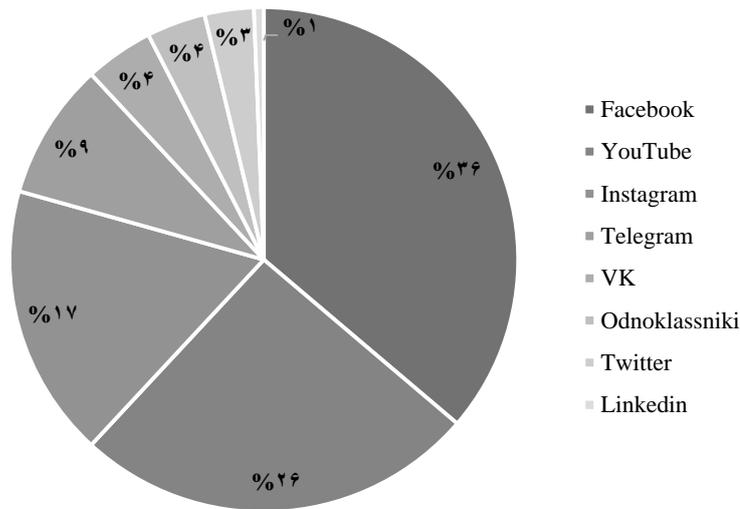

Fig. 4. Rating of the popularity of social networks in Ukraine

19 million Ukrainians are Facebook users; there is also a steady growth in the popularity of the social network Instagram, whose audience in Ukraine has reached the level of 11 million users. Since 2014, thanks to the blocking of Russian social networks in Ukraine, on the contrary, the number of users of such social networks as Odnoklassniki and VKontakte has significantly decreased. Most often, Ukrainian users visit social networks to search for information of interest to them and communicate with friends. 56% of users are interested in news and events in the country and the world; the same percentage use the network to download or read books online. And such a motive as self-expression, which, in particular, is realized through the creation of their content, is relevant only for 17% of users.
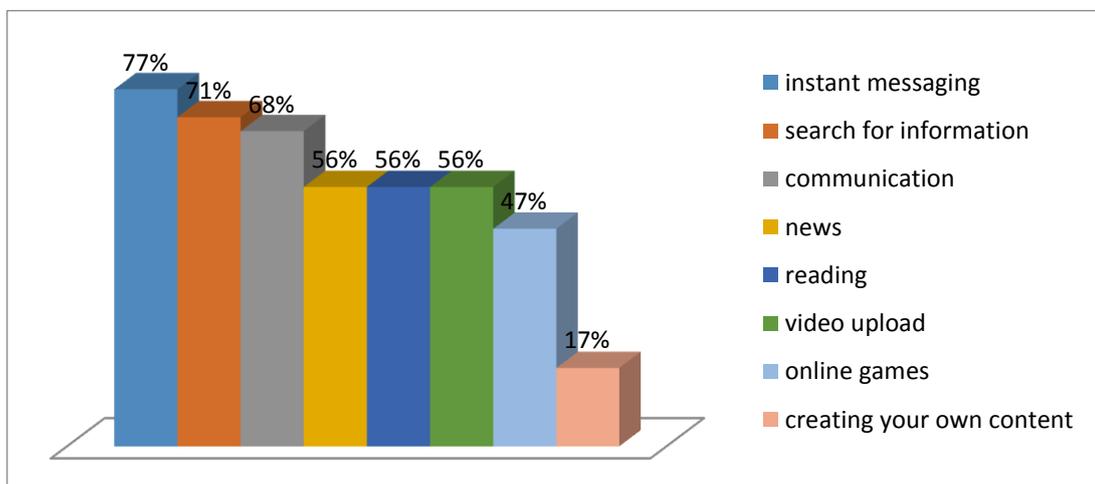

Fig. 5. Motives of users visiting social networks in Ukraine

The analysis of the age range of users of social networks around the world and in Ukraine at the beginning of 2020 is almost the same and showed the following trend: the most active users of social networks are the age group from 16 to 24, the group from 25 to 39 years is slightly behind, followed by the age group 40-53 years old, followed by 54-60 years and 61 years and older (Fig. 6).
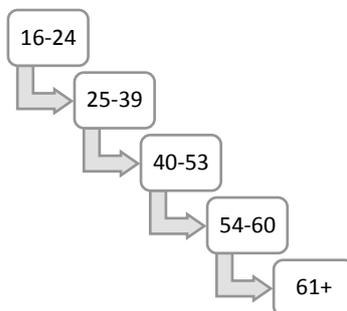

Fig. 6. The activity of users of social networks depending on age in descending order

The choice of social networks depending on age also has its specifics (Table 2): young people prefer telegram and Instagram from 16 to 24 years old, young people and middle-aged people from 25 to 39 years old often go to Twitter, and middle-aged people from 40 to 54 years old prevail in Odnoklassniki, Facebook's age range is the widest: from 18 to 54 years old.

Table 2
Rating of the popularity of social networks depending on age (% of respondents in each group)

Social network	Age range				
	16-24	25-39	40-54	54-60	61 +
Facebook	71%	69%	65%	43%	20%
YouTube	60%	52%	48%	32%	15%
Instagram	57%	35%	25%	14%	6%
Telegram	32%	14%	13%	9%	3%
VK	12%	10%	7%	5%	1%
Odnoklassniki	4%	6%	10%	7%	3%
Twitter	11%	7%	5%	4%	0
LinkedIn	1%	3%	1%	0	0

4. Evaluation and analysis of results

The influence of social networks on people's lives is enormous because social networks have become the most popular occupation of the modern Internet, which are actively used by 46% of the world's population. Social networks as a phenomenon of the information society are actively being introduced into various spheres of its life, providing tremendous opportunities not only for the development of social relations between people but also for solving other global human needs: these concerns work, entertainment and the implementation of various plans. Today we can say with confidence that social networks, which emerged as a phenomenon of the information society, provide tremendous opportunities for the formation of civic identity and narrowing the gap between power and people, as more and more political and state leaders begin to create their pages in social networks for communication and are no longer perceived as something abstract since a social network contributes to their personalization, and this, in turn, creates the preconditions for people far from a power to join the processes of government, and therefore take an active life and civic position. Therefore, the issue of creating Ukrainian social networks that would not only be multifunctional but also take into account the regional specifics of the country is so acute.

The development of social networks in Ukraine began much later than in America, Europe and other countries, so many projects, having emerged and unable to withstand competition, disappeared. So back in 2017, the following Ukrainian social networks worked relatively successfully: Ukrainians, Yachudo, FamalyUa, SICH.UKR, NaMaidani, CIMBOR, Nimses, WEUA, UKropen, GoBeside, pablik.in, druzzi.net, but many of them have already stopped their existence. Analyzing the reasons for the failure, the main factor can be distinguished: some networks used only the Ukrainian interface language, which initially limited the target audience. The world community has long become a global information society (Global, 2016; Madanmohan Rao), and the world has undergone a kind of "compression" in which people do not want to limit their communication within the framework of one country. The social network is inherently a special communicative space in which

people want to be free and not limited by anything in the process of communication. Networks with a limited number of users are not attractive to potential advertisers, which cuts down on the network's income and the project turns out to be unprofitable. So the social network NaMaidani has been translated into five languages: English, Russian, German, Spanish and Turkish and is considered one of the most successful. Another Ukrainian social network Nimses is very promising, in which more than 13 languages are used; moreover, it has its specific features. But for all these projects to gain credibility, it will take a lot of money and time. The social network should not be overly politicized and sin with an overabundance of patriotism; it should be universal and include all possible functions. However, as experts point out, all the necessary functions can be found on Facebook, and there is no reason to hope for the outflow of users from there. More likely to become popular with specialized networks.

5. Conclusions

Social networks in modern society have received such a scale of development at which one can speak of new differentiation of society according to the criterion of inclusion or non-inclusion in virtual social communities. From the analysis of the obtained results, we can conclude that social networks are attractive for any age from 12 to 61+ and each age group reflects their interests in them. Ukraine has yet to take its place in the global information community with its inherent phenomenon such as social networks to represent Ukraine with dignity in the international arena.

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