DOI: 10.15838/esc.2022.5.83.13
UDC 316.732, LBC 60.59


# Manifestations of Digital Socialization among Young People: Findings of a Pilot Survey of High School Students

**Maksim A.**
**GOLOVCHIN**
Vologda Research Center, Russian Academy of Sciences
Vologda, Russian Federation
e-mail: mag82@mail.ru
ORCID: 0000-0002-7813-5170; ResearcherID: N-1706-2015

**Abstract.** In the modern world, the processes of socialization (personality formation) are gradually moving from the real world to the online space. However, due to the increasing risks of digitalization, the impact of digital socialization on the younger generation becomes an object of controversy among scientists and the public. The paper proposes our own two-stage typology of Internet users, based on the signs of manifestation of online temperament as a behavioral model formed in the course of digital socialization. According to the classification, Internet users have features of the following types: "opportunist / idealist" (using the Internet for deception), "enthusiast / skeptic" (trust / distrust of the content), "aggressor / tolerant" (manifestation of online aggression), "addictive / autonomous" (presence of Internet addiction). Combinations of features of particular types make up the general types of users (adaptive, substitutional, passive), which reflect the results of digital socialization and network acculturation. We propose an algorithm for identifying the types of Internet users in the course of a sociological study. Having tested the proposed solution within the framework of an intelligence study (in the case of a pilot group of schoolchildren from the city of Vologda) we formulate working hypotheses about the diverse impact of digital socialization on modern schoolchildren; dynamics, instability and flexibility of online behavior models of the younger generation; close connection of the socializing influence of the Internet with the development of interpersonal communication. The hypotheses will be taken into account in the course of elaboration of the research topic. The article puts forward a model

**For citation:** Golovchin M.A. (2022). Manifestations of digital socialization among young people: Findings of a pilot survey of high school students. *Economic and Social Changes: Facts, Trends, Forecast*, 15(5), 237–256. DOI: 10.15838/esc.2022.5.83.13

for organizing digital socialization based on the harmonization of interests of the widest possible range of agents. The findings of the research can be used in the formation of strategic plans for the development of the digital industry and educational policy. Scientific novelty of the research consists in the development of a new methodological solution for using the socializing influence of the Internet environment in the process of generalization.

**Key words:** digital socialization, expected socialization, non-expected socialization, network acculturation, typology of users, sociological survey.

**Introduction**

Digitalization poses new challenges not only for the economy and society, but also for socialization as a complex process of organizing human interaction with the environment, through which, in turn, personality develops (Gunina, Dudina, 2020). The process of socialization during the formation of attitudes, values, actions and behavior turns a person into a social being, as a result of which social integration and identity of the individual are manifested[1]. The socialization mechanism is based on the synergy of individual personality characteristics (gender, age, character, etc.) methods and forms of information transmission (language, control mechanisms, parenting practices, etc.), as well as structures of behavior culture (social roles, social status, morality, ethics, etc.) (Pescaru, 2018).

The phenomenon of socialization in science is interpreted from the point of view of different theoretical approaches. Each of them represents this phenomenon in terms of a certain process: biogenetic; sociogenetic; interactionist; socio-ecological; cognitive; mastering sociality in the course of interaction with "significant others" within the framework of individual thesaurus configurations of knowledge and attitudes; appropriation and assimilation of social experience, characterized by multidirectional dynamics of progressive and regressive personality development, etc. (Lukov, 2002; Shamionov, 2013). The opinions of representatives of different approaches are united by the fact that, within the framework of socialization tasks, they all emphasize the importance of transferring socially significant information from one subject to another. The difference lies in the essence of this information (social knowledge, social roles, social experience, cultural values, moral and ethical norms, thesauri, etc.).

Socialization tasks are performed by social institutions as a set of roles and statuses (according to N. Smelser's terminology), as well as by agents as holders of certain roles and statuses (Shcheglov, 2016). The agents of primary socialization (traditional agents) usually include parents, teachers, mentors, educators, trainers, and the agents of the secondary socialization (secondary group) – employers, officials, representatives of state, law enforcement agencies, political parties, the church, as well as the media. Recently, the opinion has spread in science that the role of the secondary socialization institutions is actively performed by communication platforms on the Internet (Prokhorova, 2019).

Socialization is of particular importance for young people, as a child is born and grows up in social environment, and a young person, like no other, feels a constant need to be in a community of people (Schiopu, Verza, 1995). The period of child development (up to 17 years according to the periodization of L.S. Vygotsky) refers to the stage of primary socialization – one of the most active phases of this process. At this period, a child

[1] Mishra P. (2021). Socialization's effect on personality development. *Indian Journal of Law and Social Sciences*, 1(1). Available at: https://www.ijlss.cslr.in/2021/11/socializations-effect-on-personality.html

becomes a full individual and a member of society and later (at the stage of secondary socialization) learns specific social roles (Folieva, 2012).

Socialization, like learning, is a two-way (subject-subject) process. During socialization, personality formation occurs within the framework of the active use of norms, signs, imitation, copying, identification, adaptation, empathy, suggestion; during training – through the use of educational tools and methods (Khlebodarova, 2010). Also, the fundamental difference between socialization and learning is its final result. The expected learning outcome relates to the field of knowledge, and the expected result of socialization refers to the personal sphere (values, attitudes, orientations, etc.). Therefore, we can speak about two types of socialization – expected (socially approved) and unexpected (having the opposite effect to the given one) (Folieva, 2012).

In the modern world, the results of the expected socialization undergo significant transformations, since a person is forced to socialize in the space of two worlds – real and virtual (Ershova, 2019). According to Professor of Lomonosov Moscow State University G.U. Soldatova, "ICT today is the most important agent of socialization, which begins to compete with family and school" (Soldatova, 2018). With regard to the influence of the network environment on socialization, the term "digital (information or cyber) socialization" has been fixed in science, which is usually understood as the process of mastering and appropriating social experience acquired in online contexts by a person mediated by all available digital technologies (Soldatova, 2018); continuous process of introducing a person to the values of digital society, digital culture, formation of digital competence and adaptation in the digital environment (Grevtseva, 2022); the local process of qualitative changes in the structure of the personality, occurring in the process of its use of resources and communication with agents encountered by a person on the global Internet (Pleshakov, 2012). There are four process components in digital socialization: digital culture (ideological and organizational values), digital learning (digital literacy and skills), digital personality development (digital personality, digital reputation), digital education (Dudina, 2021).

Strictly speaking, there are three approaches to the concept of "digital socialization" in science: 1) *fundamental* (E.V. Morozova, N.V. Plotichkina, K.I. Popova), which sees in this process the internalization (mastering) of external practices, norms, rules, roles of the network society, the introduction of world culture samples into the system of vital values (Morozova et al., 2019); 2) *broad* (N.A. Golubeva, V.A. Pleshakov, etc.), which recognizes the digital world's unlimited independence in the formation of norms and values inherent in modern society (Golubeva, 2020); 3) *narrow* (G.A. Starodubtseva), which sees digital socialization as nothing more than an extension of the functionality of traditional socialization, i.e. the one that is realized through the efforts of family and educational institutions (Starodubtseva, 2021). In particular, A.G. Sutcliffe emphasized the inextricable link between online and offline socialization within the framework of the concept of the social brain (Sutcliffe et al., 2018).

The advantages of digital socialization usually include the possibility of the formation of a new style of communication by the Internet, involving independence, autonomy, emotional and intellectual openness, innovativeness; creation of new ways of forming identity and individuality in the digital space, leading to an increase in self-esteem (Tapscott, Barry, 2009). Thanks to the activity of the Internet as an agent of socialization, new trends appear in the process of forming a personality – personalization, gamification (Grevtseva, 2022), etc. At the same time, according to scientists, the effects of digital socialization are most effective if the socialized have motives for gaining maturity and social status (Smith et al., 2015).

The importance of digital socialization for children and youth has been repeatedly emphasized in science. In particular, Susan J. Danby from the Queensland University of Technology (Australia) writes about the new socio-cultural phenomenon of "digital childhood" as a special historical type of childhood (Danby et al., 2018). M. Prensky spoke about representatives of the younger generation as "digital natives" who have innate, not acquired knowledge about digital technologies, and are carriers of special (digital) language, quickly get used to the world of gadgets, video games and social networks. He contrasts "digital natives" with "digital immigrants" – a generation born before the widespread introduction of digital technologies (Prensky, 2001). Indeed, according to research, 87% of teenagers aged 13–17 have access to computer in the world, 58% have access to tablet devices, and more than 90% are active in social networks (Romm, Romm, 2021). It is worth noting that according to Kaspersky Lab, children from Russia spend relatively more time on the Internet than their peers from foreign countries: 56% of Russian minors spend almost all day online, in Europe – 51%, in the USA – 40% (Bochaver et al., 2019). At the same time, in the most developed regions of the country, Internet coverage exceeds 90%, and social media coverage exceeds 70% (Kozhevnikov, Maslikov, 2020).

One can often find the opinion that classical methods of socialization in the case of "digital natives" do not work in the modern world (Ignatova, 2017). Supporters of M. Prensky adhere to the point of view that the younger generation in the process of digital socialization forms network thinking, which radically changes the vision of the world and human relations[2]. Apart from this discourse is the idea of a "digital personality" as a mental structure, which is fundamentally formed in a child during digital socialization. Digital personality manifests itself in the process of the Internet communication; it has freedom of entry and exit from the communicative space, as well as global, indefinite multiple addressing; it is characterized by immediateness (reacts instantly, according to the principle of "then and there"); it has the possibility of the "extension" (creates the desired image, while giving special significance to individual facts) (Popova, 2019).

The formation of a new personality type in the process of digital socialization is reflected in the public culture. For instance, Yu.A. Kosik introduces the term "online acculturation" into scientific discourse. It means the process of long-term interaction of a person with the resources of the global network, as a result of which qualitative changes in consciousness occur, mediated by asynchrony, spaciousness, dynamism, interactivity, and variability. In this case, the values of personality, freedom and independence, knowledge and education, self-realization, spiritual development, social contacts, material wealth and self-expression are transformed (Kosik, 2015).

The scientific literature often discusses the advantages of the socializing potential of the digital environment. V.A. Pleshakov writes that life in cyberspace is especially important for those whose real life is interpersonally impoverished for one reason or another, which allows considering the Internet as an alternative to the immediate (real) environment, a kind of quasi-socializing environment (Pleshakov, 2009). Thus, digital socialization for a modern child is necessary as a resource that allows young people to build their identity and compensate for the deficit in other areas of social reality (Avdulova, 2011).

At the same time, a number of scientists have concerns about digital socialization related to the objective digitalization risks for human development. For instance, B. Zizek believes that interaction on the web critically lacks the key qualities of socializing influence on the personality,

[2] Cornu B. Digital natives: How do they learn? How to teach them? Policy brief. September 2011. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000216681

since it is "unbound, filtered and untenable" (Zizek, 2017). According to the scientist, agents of digital socialization of a teenager are primarily anonymous interlocutors who usually express confidence that they should participate in the interaction superficially and without any serious impact on the personality. In this regard, digital socialization cannot compete with traditional forms of the process of personality formation. Y.N. Korotysheva highlights such disadvantages of digital socialization as the risk of negative result (development of cruelty, fears, psychological trauma inflicted on the psyche of a child when visiting questionable sites); a decrease in mental activity (due to rapid fatigue from the screen), which generates clip thinking[3]. T.A. Romm and M.V. Romm believe that the key issue of digital socialization is the question of combining traditional values with the values of digital culture, often accompanied by aggression and cruelty (Romm, Romm, 2021).

Based on a mass survey of schoolchildren aged 10–17 years, scientists concluded that the Internet has narrowed the information space of Russian teenagers to one or two communication channels, resulting in the devaluation of most existing sources of information about the world in the children's minds (Tsymbalenko et al., 2012). The negative impact of the Internet activity on social mood (Golovchin, 2019) and culture (Golovchin, 2022) is confirmed by the findings of regional studies.

Thus, at the present stage of the scientific development, due to the lack of a clear position on the results of digital socialization, a contradiction has formed in the research field that does not allow unambiguously interpreting the positive and negative sides of the socializing effect of the Internet environment. This contradiction consists in the simultaneous acceptance of both the advantages and risks of such a format of socialization without a clear understanding of the impact mechanisms of the global network on the individual. Moreover, this contradiction forms hypertrophied myths about both the unconditional benefits of the influence of the global network on young people (which include the concept of digital childhood and cybersocialization, as well as the position "digitalization can no longer be stopped!") and its unconditional harm (comparing the Internet with a "digital camp"). As a result, the lack of public consensus on these issues makes it difficult to understand the prospects for the development of socialization in the modern world, and the adaptation of the younger generation to it.

In the study, we intend to contribute to the controversy about the socializing role of the Internet for children and adolescents. We adhere to a narrow approach to the study of this phenomenon, according to which an incomplete (truncated) process of socialization is implemented in the digital world. From our point of view, digital socialization is not designed to create new values and norms (for which the family and education are responsible), but thanks to the representativeness of the Internet community, it powerfully affects the sphere of user behavior, forming a certain model of attitudes and reactions. In this regard, our view is consistent with the concept that digital socialization only complements the qualities of traditional socialization, is a superstructure of this process.

Thus, within the framework of our research, digital socialization is a process of personality formation determined by the purposeful influence of both family and education, as well as the Internet environment. The impact of the Internet environment includes the formation of personal behavior patterns in the network. This influence complements the formative influence of the primary agents of socialization, which create universal values, norms and cultural patterns, and is also realized in interaction with these agents.

[3] Korotysheva Yu.N. Digital education. Risks and dangers of digital childhood. Available at: https://spb.hse.ru/mirror/pubs/share/356124886.pdf

Table 1. Conceptual model of digital socialization

| Environment | Object | Institution | Agent | Function | Mechanism | Values | Norms | Patter of behavior | Result |
|---|---|---|---|---|---|---|---|---|---|
| Offline | Personality | Family | Parents | Formation of a base for digital socialization by relaying norms, meanings, restrictions | Traditional (spontaneous) | Self-regulation, stimulation, safety, achievement, etc. | Generally accepted rules of social life | Masculinity, femininity, etc. | Basis formation for the expected socialization: universal values, norms and behavior patterns |
| | | Education | Teachers | | Institutional | | | | |
| Online | | Internet | Network users, network community | Adaptation of generally accepted values, norms and patterns (basis for socialization) to the conditions of the Internet environment during communication with socially significant representatives of the network community | Interpersonal, stylized | Security in the use of network information; autonomy from the influence of the virtual world on interpersonal relationships in "real" | Conscious prohibition of using the network for deception and network aggression | Immeditativeness, transcendence, mobility, etc. | Critical attitude to the Internet content; restriction to the use of the Internet for deception; understanding the risks of Internet activity in relation to the psyche; constructive attitude to online communication |

Source: own compilation.

We consider a certain ideal scenario of the digital socialization process assuming that digital socialization can be based on the joint efforts of traditional agents and the Internet community aimed at the formation of verified patterns of behavior in virtual reality. The results of socialization as a process directly depend on whether this scenario is implemented or not. In other words, ideally, both online and offline environments should be involved in the process of digital socialization. The alliance of traditional agents and the Internet community provides the expected socialization, and the replacement of the roles of one agent by another – unexpected. Below we present conceptual understanding of the nature of the object of our research *(Tab. 1)*.

In the process of digital socialization, as well as in the process of socialization in general, a person (object), agent(s) and a reference pattern participate, the imitation of which forms a holistic picture of the world in the individual consciousness. As a result, the object either clearly separates the rules of the virtual world from its real life, or integrates them. In the latter case, they replace reality, which for one reason or another does not suit them. In this regard, it is important to understand what behavioral patterns young people perceive in the online environment, how they react to them, and also what type of socialization this process corresponds to – expected or unexpected. The expected digital socialization, in our opinion, should be aimed at creating technological conditions to adapt an individual to the challenges of the modern world by creating a platform for remote interaction of network users (primarily in the format of communication) with the condition of maximizing the number of persons involved in this process. Unexpected one is associated with the digitalization risks for the younger generation and leads to the emergence of a hybrid type of self-regulation among young people (based on the layering of opposite patterns, values and norms into a single mental complex).

The purpose of the research is to develop a typology of the Internet users that describes various manifestations of expected and unexpected digital socialization among young people. To achieve this goal, we have performed the following tasks: generalized the ideas about the typologies of the Internet users formed in science; developed the author's typology of the Internet users and the algorithm of research steps to determine the online temperament of representatives of the younger generation; tested the typology on the data of an intelligence sociological study; and formulated working hypotheses about the specifics of the young people' behavior on the Internet. As part of the intelligence phase of the study, we have carried out the search for a methodological solution for classifying Internet users and testing this solution for strength. We propose a new scientific result – the author's typology of the Internet users, which can be used to generalize the socializing influence of the Internet on the younger generation, as well as to identify the nature of the impact of this influence on the communicative abilities that are important for the adaptation of the population to the conditions of the BANI-world.

**Research methodology**

Attempts to classify network users in science began relatively recently. The earliest and most detailed classification was proposed in 2011 by the American sociologist B. Solis. He identified eighteen different types of users on the basis of typical strategies that are used in communication in social networks: self-presentation, pragmatic, rhetorical, dialogic, semantic, and discrediting[4]. Later, the tradition of compiling such typologies was picked up by other scholars. Each of them tries to base their ideas on one or more signs of the Internet activity of users: goals, motives, intensity of network use, self-presentation online, etc.

The experience of compiling user typologies points to a number of important methodological conclusions. First, scientists admit that a user in the network can be both active and completely passive (i.e. be in the network formally). Second, along with universal typologies, there are those which take into account age features of users (V.S. Sobkin, A.V. Fedotova, G.U. Soldatova). Third, typologies virtually do not consider the impact of digital socialization; they group users based on goals and motives for using the Internet, rather than the possible results on the impact on the behavior and character of the individual. The authors of the typologies tend to avoid taking into account the socializing effects of digitalization and generally underestimate this phenomenon. The psychological categories (motivation, aggression, creativity, leadership, trust, etc.) used as bases for classification are applied outside the context of digital socialization. This underestimation, from our point of view, does not yet allow fully using the developed classifications to assess the impact of the Internet on the younger generation *(Tab.2)*.

Table 2. Typologies of the Internet users in the scientific literature

| Author | Basis for the typology | User type |
|---|---|---|
| B. Solis | Communication strategy in social networks | Benevolent, problem solver, commentator, researcher, conversationalist, curator, producer, broadcaster, marketer, web star, egocaster, self-promoter, observer, careerist, "EMI" (extremely much information), spammer, listener, complainer |
| Master Card Digital Sharing and Trust Project | Economic motives of users | Open users, online interlocutors, targeted buyers, passive users, proactive advocates |

[4] Solis B. Digital transformation: Executives need a sense of urgency to compete against digital natives. Available at: https://www.briansolis.com/2019/11/digital-transformation-executives-need-a-sense-of-urgency-to-compete-against-digital-natives

End of Table 2

| Author | Basis for the typology | User type |
|---|---|---|
| WEB-Index | Device used to access the network | Dekstop users; mobile users |
| First Direct, E. Zekman | Patterns of activity in social networks | Ultras (possessed), casuals, deniers, newcomers, observers, peacocks, screamers, shifters, ghosts, informants, inquirers, approval seekers |
| O.N. Kondratyeva | Competence / incompetence | Experienced users (“surfers”) who feel “at home” on the Internet (“residents”), and inept users (“lost travelers”) |
| | Youth / maturity | Young users (“natives”) and age users (“immigrants”) |
| | Aggressor / victim | Virtual aggressors (“spiders”), their victims (“flies”) and easily manipulated users (“hamsters”) |
| | Creativity / copiability | Creative, creating new content (“spiders”), and passive consumers of other people’s content (“flies”) |
| E.V. Lazutkina | Opinion leadership | A user who has gained popularity in an offline environment; an expert author (providing news information on a narrow topic); a user who has gained popularity in an online environment |
| A. Morozova | Media activity level | Media maker, user maker, user |
| Yu.A. Kosik | General purpose of using the Internet | Consumer, communicator, productive |
| V.S. Sobkin A.V. Fedotova | Motivation for using the Internet | Users motivated by the desire for psychological compensation, avoiding conflicts and difficulties in real life, the desire for self-expression and the need to expand their cultural and economic opportunities; users focused on maintaining real communication due to interest in self-presentation on the web |
| E.V. Brodovskaya A.Y. Dombrovskaya | Network usage intensity; using the Internet for communication; intensity of content creation; types of preferred content; the level of trust in the content | Informational person, entertaining person, pragmatic person, traditional person, uninformative person |
| G.U. Soldatova T.A. Nestik E.I. Rasskazova E.Yu. Zotova | Purposes of activity in the Internet environment | Generalists, players, network readers, communicators focused on learning |
| P.B. Brandtzaeg | Pusposes of using the network (procrastination, communication, controversy, self-realization) | Sporadic, secretive, socializers, debaters, activists |
| E. Ortega, etc. | Resources that are used by users (Internet services, departmental services, etc.) | Laggards, dissatisfied, experienced, subscribers |
| J.B. Horrigan | Showing interest in certain content | Omnivores, connectors, “dim veterans”, productive, mobile centrists, “connected with difficulty”, inexperienced experimenters, few, indifferent, offline users |
| S. Livingstone, E. Helsper | Purposes of using the Internet (obtaining information, media, etc.) | Basic, moderate, broad |
| C.F. Shih, A. Venkatesh | Diversity and extent of Internet usage | Intensive, specialized, non-specialized, limited |

Source: Kosik, 2015; Kondratyeva, 2020; Lazutkina, 2017; Morozova, 2018; Sobkin, Fedotova, 2019; Brodovskaya, Dombrovskaya, 2014; Soldatova et al.., 2013; Brandtzaeg, 2010; Horrigan J.B. *A Typology of Information and Communication Technology Users*. Pew Internet report. 2007; Livingstone, Heksper, 2007; Ortega et al., 2007, Shih, Venkatech, 2004; Solis B. Digital transformation: Executives need a sense of urgency to compete against digital natives. Available at: https://www.briansolis.com/2019/11/digital-transformation-executives-need-a-sense-of-urgency-to-compete-against-digital-natives; Online temperament: Types of personalities on the web. Available at: https://www.marketing.spb.ru/mr/social/online_personality_types.htm; Zeckman A. Five social media user types and tips for marketers to connect with each one. Available at: https://www.toprankblog.com/2012/11/5-social-media-user-types/

As part of our approach to the category of "digital socialization", we have developed the typology of the Internet users. The difference between our solution and the typologies of the Internet users existing in science consists in taking into account the socializing effects of the network environment. The typology was based on the category "online temperament", which has not yet been fully worked out in science. By online temperament, we understand the basic determinant of the behavior of representatives of the younger generation on the Internet, which is formed both in the process of expected and unexpected digital socialization and reflects the result of this process in the categories of types of the Internet users. Based on the conceptual understanding of the results expected from digital socialization, we have identified the factors determining the online temperament of young people: trust in the content offered on the Internet; the use of the network for deception; a tendency to ward world network aggression and Internet bullying; persistent psychological dependence on the Internet.

We have identified eight particular types of users who are paired together in one way or another to manifest online temperament *(Tab. 3)*. An *opportunist* is inclined to search the Internet for ready-made solutions to educational problems and present these solutions as their own. An *idealist* does not use such methods. An *enthusiast* tends to trust the content presented on the web as "the ultimate truth". A *skeptic* checks the information obtained from the Internet in alternative sources of information. The sign of an *aggressor* is participation in the practices of insulting and pressure on the Internet users through online communication, as well as the desire to clarify relations in the network publicly. A *tolerant* type does not use fake accounts and nicknames to insult other users; avoids communicating online with obvious aggressors. An *addictive* type shows dependence on the Internet, which affects interpersonal relationships offline and the fulfillment of social responsibilities. An *autonomous* type is more selective about network visits, does not form conflict situations with others about the frequency of visits and the content viewed (Golovchin, 2022).

To establish particular types, we suggest using a sociological questionnaire, where the questions are put together as cases (practical situations). We should recognized that the most sensitive aspect of the online experience is the Internet addiction disorder, the level of which can only be determined by a specialist psychologist in the order of regulated medical procedures. The additive and autonomous personality type of the Internet users is recommended to be distinguished by indirect questions. They do not concern the manifestations of addiction, but the impact of the global network on family relationships: the presence of conflicts with parents about the time spent on the Internet and the content viewed; neglect of communication with parents, lessons and household chores in order to spend more time online. In principle, the presence of such conflicts will indirectly indicate problems with network dependency.

According to our approach, each Internet user can manifest traits of several particular types at once, which are combined into a single behavioral complex reflecting the results of digital socialization. This complex can be generalized into three resulting types of users: adaptive, substitutive and passive. For example, the adaptive type combines the traits of an idealist, skeptic, tolerant and autonomous user; the replacement type combines the traits of an opportunist, enthusiast, aggressor and an addictive user. Passive users do not use the Internet as a platform for communication, network aggression, and information search. In general, the adaptive type indicates that in the course of network acculturation, a personality has formed that perceives the virtual and real world as distinctive and independent of each other phenomena. The replacement type will indicate acculturation, during which a person replaces the real world with a virtual one. The passive type will indicate that there is no impact on the personality from digital socialization.

Table 3. Typology of the Internet users by manifestations of online temperament among young people

| Parameter | Indicator | Private types (reflect the influence of online temperament) | | | | | | | | Common types (reflect the result of digital socialization) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Opportunist | Idealist | Enthusiast | Skeptic | Aggressor | Tolerant | Addictive | Autonomous | Adaptive | Substitute | Passive |
| 1. Propensity to use the network for deception | Find ready-made works on the Internet and hand them over to the teacher passing them off as his own (k1) | + | - | | | | | | | - | + | No response |
| 2. Tendency to trust network content | Believe that you can trust information on the Internet without limit (k2.1) | | | + | - | | | | | - | + | No response |
| | To verify the truth of information from the Internet, find relevant information in alternative sources (book, textbook, magazine, newspaper, etc.) (k2.2) | | | - | + | | | | | + | - | No response |
| 3. Propensity for network aggression | Believe that the Internet space is free from restrictions, and no rules of politeness are required to communicate online (k3.1) | | | | | + | - | | | - | + | No response |
| | Use a pseudonym (nickname) so that you can write whatever you want, and at the same time the interlocutor did not find out about it (k3.2) | | | | | + | - | | | - | + | No response |
| | In conflict situations in the network, he finds out the relationship publicly on the forum (k3.3) | | | | | + | - | | | - | + | No response |
| | Uses a fake account to insult other people on social networks (k3.4) | | | | | + | - | | | - | + | No response |
| | Does not communicate with people who offend on the Internet, immediately puts them on the «black list» of contacts (k3.5) | | | | | - | + | | | + | - | No response |
| 4. Tendency to world Internet addiction | There are conflicts with parents about the time spent on the Internet (k4.1) | | | | | | | + | - | - | + | No response |
| | There are conflicts with parents about the content viewed on the Internet (k4.2) | | | | | | | + | - | - | + | No response |
| | Neglects communication with parents, lessons and household chores in order to spend more time online (k4.3) | | | | | | | + | - | - | + | No response |

Source: own compilation.

At the same time, we are aware that the existence of an adaptive, substitutive and passive type is a kind of terminal case. Often an Internet user is a carrier of diametrically opposite online temperaments, so in the study we provide both terminal and intermediate types of Internet users.

To determine the types of the Internet users in the course of a sociological study, we propose the following algorithm.

a) Determination based on the processing of empirical data of subindexes reflecting the attribute of a particular type of user. As part of this operation, if there are signs of an idealist, a skeptic, a tolerant and an autonomous user, a subindex 2 is assigned to the observation; if there are signs of an opportunist, an enthusiast, an aggressor and an addictive user, a sub-index 1 is assigned. Observations that include refusal of an answer are marked 0.

b) Calculation of the total online temperament index based on the sum of all subindexes in the range of values from 0 to 22.

c) Determination of the general type of the Internet user based on the interpretation of the boundaries of the values of the online temperament index

- adaptive type – 22;
- moderately adaptive type – 15–21;
- moderately substitutive type – 11–14;
- replacement type – 11;
- moderately passive type – 1–10;
- passive type – 0,0.

The proposed algorithm of research operations was tested on the materials of a series of intelligence sociological surveys. As part of the testing, a pilot (convenient) sample was used[5]. In total, we have carried out three measurements: in September 2020, 55 people participated in the study, in May 2021 – 53 people, in March 2022 – 40 people. The representatives of the pilot group are children aged 15 to 17 years old, studying in the senior classes of two schools in Vologda – "Secondary School no. 12", "Secondary School no. 13". Gender was not taken into account in the sample. For the tasks of approbation (verification of the proposed solution), the inclusion of respondents in the same educational team turned out to be more valuable. Due to the use of convenient sampling, the survey subjects were selected according to the principle of accessibility and proximity to the researcher. The choice of the respondents' age is due to the fact that, according to experts, it is during this period that the most significant change in the structure of interests occurs, the revision of the direction and degree of involvement in various components of the information space (Avdulova, 2011).

We have conducted a pilot survey in the form of a handout questionnaire at the place of study of respondents. We have used the same tools at all stages of the survey. The questionnaire presents 11 case situations; we ask the question about how the respondent usually acts in such a situation. In advance, we have stipulated that the respondent may not provide an answer if they have never been in such a situation due to the lack of relevant Internet experience, an account in social networks, registration on forums, etc.

In order to show the reliability and strength of the proposed solution, we briefly summarize the empirical results of the intelligence study.

**Research results**

As part of the approbation, we followed the steps corresponding to the proposed research algorithm.

The *first step* is to determine private types of Internet users and their dynamics, based on empirical data for 2020–2022. The approbation indicates that in the survey sample at all stages of

[5] Convenient sampling is a type of probabilistic sampling representing the result of sampling from the general population, in which the sampling procedure meets the general requirements of the study, but there are no requirements for the representativeness of the sample and the probability assessment. This type of sampling is the most useful for trial testing.

its conduct, the type of autonomous and tolerant user with the traits of a skeptic and idealist is most often encountered. In other words, the surveyed high school students as a whole are not inclined to use the Internet for network aggression and cyberbullying; do not have confidence in information from Internet sources; do not use the Internet to simplify educational tasks and deception as much as possible. The Internet does not interfere with their lives, does not form conflict situations in the family.

On the other hand, in the dynamics of the observed indicators, the significance of the dominant types is gradually weakening. In particular, over the three years of measurements, skeptical users have been gradually replaced by enthusiasts; it means that the trust of the surveyed schoolchildren in network resources is growing. Tolerant users are replaced by aggressors; therefore, the norms of behavior on the Internet cease to be unambiguous for everyone. Idealists are being replaced by opportunists, as a result of which the use of the Internet for deception passes into the category of a certain norm. However, these trends do not yet indicate the flow of a constructive attitude toward the network into a destructive one, since there is no substitution of an autonomous user type for an addictive one in dynamics. The current situation suggests a more meaningful role of the Internet as a psychological trap leading to lifestyle changes and conflicts. For instance, the role of an addictive user in the sample in 2022 is the least pronounced (11%). It is worth noting that in 2020, the smallest share fell on the type of enthusiast (7%), and the role of an addictive user was characteristic of 22%.

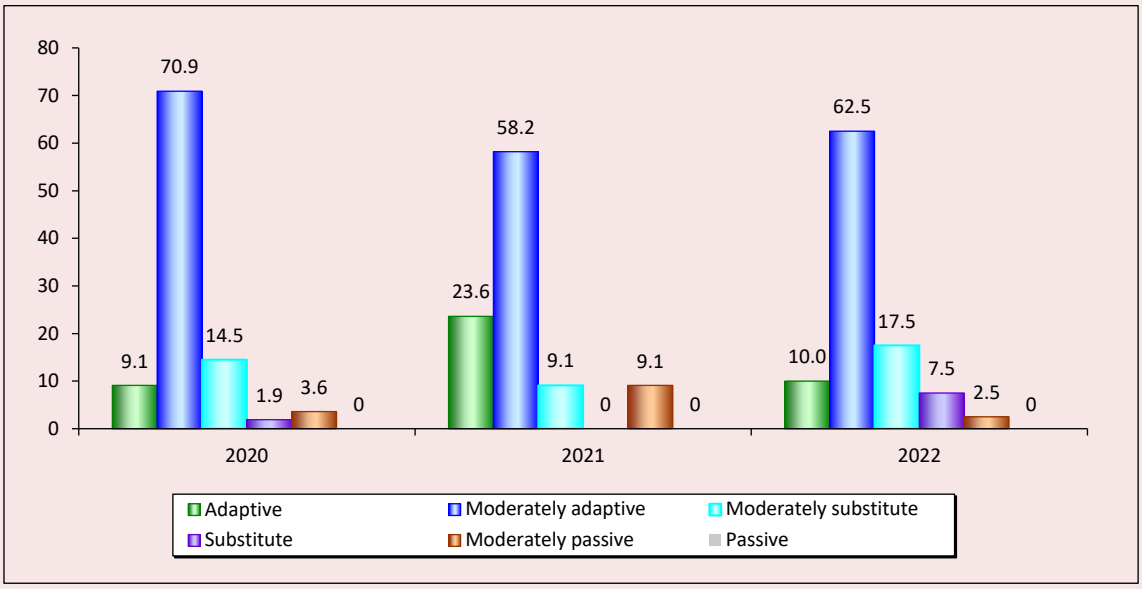
The *second step* is digitization in the form of assigning sub-indexes from 0 to 2 to individual types of Internet users in the sample. Then we sum up the sub-indexes into a general online temperament index. As a result, for each year of measurements, we have obtained a number of numbers in the range from 0 to 22.

The *third step* is that the obtained indexes are ranked by rearranging the values from larger to smaller. In accordance with the boundaries of values, one of the three general types of Internet users is determined for each respondent. The generalizations have shown that adaptive types of Internet users have the largest representation in the sample at all stages of the research. However, over time, the composition of the group of adaptive users decreases (from 80 to 73% in 2020–2022), which is facilitated by the replacement of the roles of an idealist, skeptic and tolerant user in the sample with an opportunist, enthusiast and aggressor. The downward trend has a continuous dynamics: over the three years of measurements, the proportion of representatives of the adaptive type is decreasing more and more.

In terms of further prospects for digital socialization, the strengthening of the positions of the terminal form of the replacement type is alarming *(Fig. 1)*. In 2020, the type of net replacement user was 2% of the sample, in 2021 it was not observed at all, and in 2022 its share reached 8%. We should remember that these users are addicted to visiting the Internet, fully trust information from the network, use network resources to deceive and are involved in aggression. In principle, such cases should be very rare, and the growth of indicators may indicate ambiguous transformations in the spiritual life of young people. According to the dynamics of the indicators, it is noticeable that the terminal form growth does not occur due to the transition of a moderate replacement type to a pure replacement type, but by reducing the representation of adaptive users in the sample.

To understand the attitude of young people to ward the Internet, it is important to note that we have not recorded any net passive user during the entire measurement period. The share of users of moderately passive type (with an index less than 11) is critically small: in 2020 – 4%, in 2022 – 2.5%.

Figure 1. Representation of general types of Internet users in the study sample (2020–2022), %




Source: own compilation.

In one way or another, the surveyed schoolchildren are influenced by digital socialization. In fact, the role of "digital natives" is now firmly fixed for the representatives of the younger generation.

Based on the data of the pilot measurement, we have tested the assumption about the ambiguous influence of the user type of the learning youth (mediated by online temperament) on the level of the individual's communicative abilities. In order to assess the communicative abilities level, we use the tools proposed by V.V. Sinyavsky and V.A. Fedoroshin for testing children over the age of 14. They have compiled a questionnaire in which communication skills are determined by answering 20 questions. Each answer is scored on a scale from 0 to 1. The sum of points multiplied by a coefficient of 0.05 indicates a certain level of formation of communicative competencies: high (above 0.65 points), medium (0.56–0.65 points), and low (below 0.56 points). We chose the methodology due to the fact that it is correlated with the age capabilities of high school students, as well as seamlessly integrated into sociological research (Zhavoronko, Niyazova, 2022). Questions from the test of V.V. Sinyavsky and V.A. Fedoroshin were included in the survey questionnaire in 2020 and 2021.

In accordance with the methodology of V.V. Sinyavsky and V.A. Fedoroshin, we have determined the levels of the respondents' communicative abilities included in the sample: half of the high school students (50%) have communication abilities at a high level, 37% – at a low level and 13% – at an average level. Further, we have revealed the level of communicative abilities of different types of Internet users *(Tab. 4)*. We have found that representatives of all online temperaments are most characterized by a high communication skill. However, a low level is more often a distinguishing feature of two groups – substitutive and passive users. In general, the structure of communication abilities of the group of adaptive and substitute users are very similar (except for the representation of a high communication skill).

Table 4. Matrix of comparison of general types of the Internet users with the level of their communication skills, %

| Level of communication skills | Adaptive | | Moderately adaptive | | Moderately substitutive | | Substitutive | | Moderately passive | | Passive | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| High | 20.0 | 76.9 | 43.6 | 46.9 | 37.5 | 60.0 | 0.0 | - | 0.0 | 40.0 | - | - |
| Average | 40.0 | 0.0 | 48.7 | 18.8 | 12.5 | 0.0 | 0.0 | - | 0.0 | 20.0 | - | - |
| Low | 40.0 | 23.1 | 7.7 | 34.4 | 50.0 | 40.0 | 100.0 | - | 100.0 | 40.0 | - | - |

Source: questions about communication skills were included in the questionnaire in 2020 and 2021. In 2022, the corresponding block is not included in the questionnaire.
In 2021, no representatives of the replacement type were identified, and also, in general, no representatives of the passive type were identified in the study. Therefore, the corresponding values are not presented in the matrix.
Source: own compilation.

In the dynamics of 2020–2021 the connection of online temperament and communicativeness becomes more stable in the group of adaptive users, but practically does not undergo any changes in the group of substitutes. In the group of passive users the share of persons with a low level of communication skills decreases over time, which suggests that the potential of communication at school age can be realized offline as well. It is important to note that the dynamics of the indicators makes it clear – the behavioral patterns of Internet users are flexible, not data once and for all. It means that online behavioral patterns are quite manageable (changeable).

**Discussion of the results**

Within the framework of the implemented stage of scientific research, we have proposed a typology of Internet users including an algorithm of research steps for classifying youth representatives by online temperament, and developed a scientific toolkit (questionnaire). We have tested the algorithm on the example of a pilot group of high school students in the framework of an intelligence sociological study (2020–2022). In general, the approbation showed the reliability and strength of the proposed methodological solution, as well as the possibility of its application during long-term empirical measurements.

Before proceeding to reflection on the empirical data obtained, we should recall that the task of testing our classification is not to gain new knowledge about the process and consequences of digital socialization. First of all, we have tried to demonstrate the efficiency of the proposed methodological solution, to show what results it can provide within the framework of application. It is due to the testing on the example of a very limited sample. At the same time, the analysis of empirical material allows coming up with a number of interesting working hypotheses.

Within the framework of the *first* hypothesis, we can assume that the results of digital socialization, which are expressed in the formation of a particular type of online temperament, are not the same for different users. The digital world in adolescence definitely has an impact on the process of the formation of personalities and worldview, but it is still difficult to unequivocally judge how large this influence is and whether the Internet replaces the impact of family and education.

In the framework of the *second* hypothesis, we assume that digital socialization does not form rigid behavioral models in users. On the contrary, the attitude toward the Internet and its impact among young people is changing very dynamically (most likely under the influence of traditional institutions). It gives reason to believe that it is quite possible to manage the consequences of unexpected digital socialization with the proper level of control on the part of the main actors.

In the framework of the third hypothesis, we suppose that the socializing influence of the Internet, determined by online temperament, is a condition for the formation of interpersonal

communication as an important social skill, but not in all cases. Using the example of the pilot group, it is noticeable that if a type of adaptive user has formed within the framework of digital socialization, then this connection is stronger than that of replacement users. Thus, in the first case, we may be talking about the results of expected socialization, in the second – unexpected socialization.

The hypothesis about the feedback of the results of digital socialization with the communicative abilities of users is not yet confirmed by the data of other studies. More often you can find the statement that network communication does not end on the Internet, but contributes to the development of new forms of sociability. However, this conclusion is directly related to the involvement in the activities of network communities, and not to the results of digital socialization and the corresponding behavioral reactions (Tsymbalenko et al., 2012). At the same time, we can assume that those who are less capable of offline communication tend to destructively manifest themselves on the Internet – to use aggressive forms of communication; to completely immerse themselves in the Internet space, sacrificing personal time and harmony in the family, etc. In this situation, the social environment plays a role. A high school student does not manage to build relationships with others, so he spends more time on the Internet, communication within which is not regulated by clear rules and is not accompanied by personal contacts. On the other hand, it is obvious that real communication should become a model for online communication, but not always the interlocutors and the immediate environment can provide the conditions for this.

Working hypotheses will be used to plan further research. In connection with the data obtained during the approbation for further scientific research, the following questions remain relevant: what are the errors of digital socialization related to and how to overcome them? To answer them, first of all, we should turn to the nature of communication on the network. It is distinguished by the following features: equalization of the rights of members of the network community (Maslennikov, 2009); anonymity and physical uncertainty; exchange of non-verbal information (which activates the mechanisms of stereotyping and identification); voluntary and desirable contacts; difficulty of the emotional component of communication (since emotions are expressed in a symbolic form); manifestation in communication of business, cognitive, corporate motives, motives of self-affirmation, affiliation, self-realization and personal development (Zherebin et al., 2017); striving for atypical (non-normative) behavior (Luchinkina, Luchinkina, 2017); special the etiquette of communication; the experience of "flow" (loss of sense of time due to a false sense of control over the situation) (Pashkovskii, 2019). Such specifics attract first of all those who are deprived of social communication in real life. The Internet helps them to maximize the number of interpersonal contacts, but hinders the emotional perception of communication, empathy with the interlocutor, as evidenced by empirical research data (Zizek, 2017). In this case, as a result of digital acculturation, there is not the formation of a picture of the world, but the destruction of normativity, which is expressed in a decrease in the degree of commitment to the implementation of social norms. As a result of this process, the effect of a "difference in the pace of worlds" arises, when acceleration in one sphere of life leads to a lag in another (Zubok, Lyubutov, 2021).

However, the main institutional trap of digital socialization is that the organization of the corresponding process is currently very concise and simplified, since it provides for the activity of only one institution – the Internet. The family is not included in digital socialization in any way; education limits its influence to the formation of digital skills. Moreover, traditional agents of

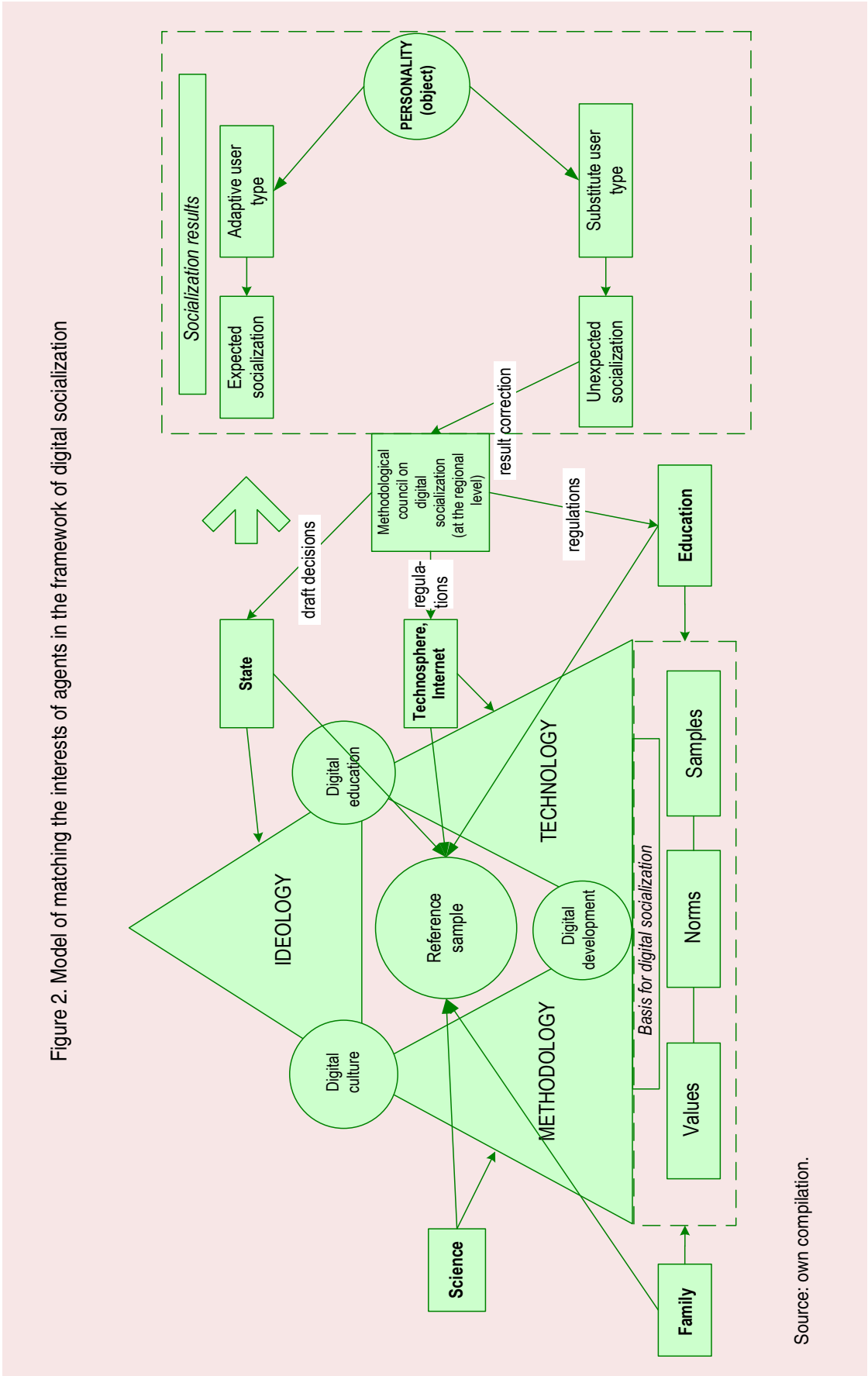



Figure 2. Model of matching the interests of agents in the framework of digital socialization

Source: own compilation.

socialization have no clear ideas of how they can participate in the formation of digital culture, digital education and digital personal development. Because of this, digital socialization loses its basis in the form of cultural values, norms and patterns.

Within the framework of this discourse, we should touch upon one more point. The Internet, as strange as it may sound, is not completely a technological environment. For socialization processes, the network is primarily users who, in the process of exchanging information, influence a personality (bloggers, influencers, chat or forum participants). The specifics of network communication leads to the fact that users do not feel responsible for the formation of a picture of the world in the consciousness of the individual. There is no way to change such a situation, since this is the essence of the Internet. Moreover, other socialization agents do not provide users with tools to influence the personality.

What is reasonable to do in such a situation? It seems to us absolutely true that the idea presented in the scientific literature that the effectiveness of socialization programs for children and adolescents in the modern information society depends on the consistency of three elements: ideology (why?), methodology (how?) and technology (at the expense of what?) (Rodionova et al., 2021). In order to develop this approach, we propose a theoretical model of socialization in the conditions of digital childhood *(Fig. 2)*.

We believe that digital socialization should be recognized as an important part of public policy (along with educational policy), and the main condition for this process should be the coordination of the interests of stakeholders. The representation of agents involved in digital socialization should be critically expanded (Internet, science, business, government, education, family). At the same time, each agent must clearly understand its functionality and responsibilities. The efforts of the family and education can be directed to the formation of a base for digital socialization (in the form of values, patterns and norms). The Internet (represented by users) should develop the base created by traditional agents in network practices. Science should provide a verified methodology for the development of digital socialization, and the state should provide an ideology. Ideology, methodology and technology are consistent with each other through a cementing element – a reference sample as a role model for young people and a basis for identifying the younger generation in the BANI world. Currently, the Russian segment of the Internet and the blogosphere demonstrates many different role models, but it cannot yet provide a reliable role model on its own, since the idea of "self-love", hype and self-presentation is often exploited on the web (Kolpinets, Kozharinova, 2022).

Digital socialization should be aimed at the formation of the personality of the representatives of the younger generation, however, the opposite effect should also be provided – the results of such formation can be reflected in the elements of socialization. So, in order to control the relevant processes, it is advisable to create a methodological council at the regional level from representatives of the parent, pedagogical, scientific community and the Internet community, whose tasks will include regular monitoring of the progress of digital socialization. The result of the work of the methodological council is recommendations and regulations for agents, according to which the main elements of socializing influence – the reference sample, methodology, ideology and technology should be adjusted. It is worth noting that in order to implement the monitoring task, the listed elements should be as flexible as possible.

The ideas presented will be developed as part of the continuing study. We see further prospects for scientific research in the formation of a clear idea of the reference sample as the core of digital socialization based on the requirements of time and historical experience.

## References


Avdulova T.P. (2011). Teenagers' socialization in the information space. *Mir psikhologii*, 3(67), 196–205 (in Russian).

Bochaver A.A., Dokuka S.V. Novikova M.A. et al. (2019). *Blagopoluchie detei v tsifrovuyu epokhu* [Children's Well-Being in the Digital Age]. Moscow: NIU VShE.

Brandtzaeg P.B. (2010). Towards a unified Media User Typology (MUT): A meta-analysis and review of the research literature on media user typologies. *Computers in Human Behavior*, 26(5), 940–956 (in Russian).

Brodovskaya E.V., Dombrovskaya A.Yu. (2014). Profiles of Internet users and the national mentality in Russia and Sweden: Results of a comparative cluster analysis. *Fundamental'nye issledovaniya=Fundamental Research*, 11-3, 661–664 (in Russian).

Danby S.J., Fleer M., Davidson C. Hatzigianni M. (2018). *Digital Childhoods: Technologies and Children's Everyday Lives*. Springer. DOI: 10.1007/978-981-10-6484-5

Dudina O.V. (2021). Digital socialization structure in modern education. *Vestnik ChGPU im. I.Ya. Yakovleva= I. Yakovlev Chuvash State Pedagogical University Bulletin*, 3(112), 161–166 (in Russian).

Ershova R.V. (2019). Digital socialization of the individual in the era of global change. In: *Prikladnaya psikhologiya na sluzhbe razvivayushcheisya lichnosti* [Applied Psychology in the Service of Developing Personality]. Kolomna: Gosudarstvennyi sotsial'no-gumanitarnyi universitet (in Russian).

Folieva T.A. (2012). Expected/unexpected socialization: A few critical notes. *Vestnik AGTU=Vestnik of Astrakhan State Technical University*, 2, 113–117 (in Russian).

Golovchin M.A. (2019). Influence of Internet activity on life in the epoch of digitalization of the society and economy, by the data of regional research. *Aktual'nye problemy ekonomiki i prava=Actual Problems of Economics and Law*, 13(3), 1356–1369. DOI: 10.21202/1993-047X.13.2019.3.1356-1369 (in Russian).

Golovchin M.A. (2022). Net culture of school children in the view of free and controlled formation: Experimental results. *Informatizatsiya obrazovaniya i nauki*, 1(53), 149–163 (in Russian).

Golubeva N.A. (2020). Digital identity features of teenagers and youth in modern technological society. *Vestnik RGGU. Seriya "Psikhologiya. Pedagogika. Obrazovanie"=RSUH/RGGU Bulletin. "Psychology. Pedagogics. Education" Series*, 1, 130–150 (in Russian).

Grevtseva G.Ya. (2022). Digital socialization of a person in educational environment. *Vestnik YuUrGU. Seriya: Obrazovanie. Pedagogicheskie nauki=Bulletin of the South Ural State University. Ser. Education. Educational Sciences*, 1, 40–49 (in Russian).

Gunina E.V., Dudina O.V. (2020). On the issue of studying the digital environment as a factor for individual socialization. *Kazanskii pedagogicheskii zhurnal=Kazan Pedagogical Journal*, 6(143), 89–97 (in Russian).

Ignatova N.Yu. (2017). Digital natives: View from the outside. *Otkrytoe i distantsionnoe obrazovanie*, 1(65), 58–65. DOI 10.17223/16095944/65/8 (in Russian).

Zhavoronko E.S., Niyazova A.A. (2022). Formation of the student teachers' functions in the digital educational environment. *Kontsept=Koncept*, 4, 79–94. DOI: 10.24412/2304-120X-2022-11025 (in Russian).

Khlebodarova O.B. (2010). Personality as a result of socialization. *Aktual'nye problemy gumanitarnykh i estestvennykh nauk*, 6, 266–271 (in Russian).

Kolpinets E.V., Kozharinova M.V. (2022). Female role models in the Russian segment of Instagram. *Teoriya mody: odezhda. telo. kul'tura*, 63, 268–286 (in Russian).

Kondratyeva O.N. (2020). A typology of social network users in the metaphorical mirror of the Russian mass-media. *Filologicheskii klass=Philological Class*, 25(1), 62–72. DOI: 10.26170/FK20-01-06 (in Russian).

Kosik Yu.A. (2015). Online acculturation of personality in modern integration conditions. *Vestnik Polotskogo gosudarstvennogo universiteta. Seriya "Pedagogicheskie nauki"=Vestnik of Polotsk State University. Part E. Pedagogical Sciences*, 15, 104–107 (in Russian).

Kozhevnikov A.M., Maslikov V.A. (2020). The impact of internet communications on value orientations: A review. *Sotsiologiya=Sociology*, 1, 149–158 (in Russian).

Lazutkina E.V. (2017). Forms of manipulation of information in Runet's social media. *Znak: problemnoe pole mediaobrazovanija*, 2(24), 221–225 (in Russian).

Livingstone S., Helsper E. (2007). Gradations in digital inclusion: Children. young people and the digital divide. *New Media & Society*, 9(4), 671–696.

Luchinkina A.I., Luchinkina I.S. (2017). Methodological problems of the study of the communicative behavior of users in the Internet space. *Gumanitarnye nauki=The Humanities*, 4(40), 42–46 (in Russian).

Lukov V.A. (2002). Thesaurus concept of socialization. In: *Diskurs: sotsiologicheskaya studiya. Vyp. 2* [Discourse: Sociological Studio. Issue 2]. Moscow: Sotsium (in Russian).

Maslennikov R.M. (2009). *Khaos i poryadok v Internete. Osnovy setevoi samoorganizatsii. Ontologicheskoe issledovanie* [Chaos and Order on the Internet. Fundamentals of Network Self-Organization. Ontological Research]. Moscow: Litres.

Morozova A. (2018). Typology of social network users. In: *Mul'timediinaya zhurnalistika* [Multimedia Journalism]. Minsk: Izdatel'skii tsentr BGU (in Russian).

Morozova E.V., Plotichkina N.V., Popova K.I. (2019). The state as an agent of digital socialization. *Vestnik Permskogo universiteta. Politologiya=Bulletin of Perm University. Political Sciences*, 13(2), 5–16 (in Russian).

Muench R. (1981). Socialization and personality development from the point of view of action theory, the legacy of Emile Durkheim. *Sociological Inquiry*, 51(3-4), 311–354.

Ortega E., Menendez M.R., Gonzalez M.V.R. (2007). Diffusion and usage patterns of Internet services in the European Union. *Information Research*, 12(2), 302.

Pashkovsky E.A. (2019). Internet as a communication problem. *Diskurs=Discource*, 5(1), 92–97. DOI: 10.32603/2412-8562-2019-5-1-92-97 (in Russian).

Pescaru M. (2018). The importance of the socialization process for the integration of the child in the society. *Revista Universitara de Sociologie*, 0(2), 18–26.

Pleshakov V.A. (2009). Cybersocialization as innovative socially-pedagogical phenomenon. *Prepodavatel XXI vek*, 3-1, 32–39.

Pleshakov V.A. (2012). *Kibersotsializatsiya cheloveka: ot Homo Sapiens'a do Homo Cyberus'a* [Human Cybersocialization: From Homo Sapiens to Homo Cyberus]. Moscow: Prometei.

Popova D.A. (2019). Digital personality as a central element of interpersonal Internet discourse. *Vestnik Buryatskogo gosudarstvennogo universiteta. Yazyk. Literatura. Kul'tura=Bulletin of BSU. Language. Literature. Culture*, 2, 87–91 (in Russian).

Prensky M. (2001). Digital natives, digital immigrants (part 1). *On the Horizon*, 9(5), 1–6. DOI:10.1108/10748120110424816

Prokhorova V.A. (2019). Social networks as an agent of student socialization. In: *Sotsial'no-ekonomicheskie i demograficheskie aspekty realizatsii natsional'nykh proektov v regione. T. II* [Socio-Economic and Demographic Aspects of the Implementation of National Projects in the Region. Volume 2]. Yekaterinburg: Institut ekonomiki UrO RAN (in Russian).

Radionova O.R., Alieva E.F., Avalueva N.B. et al. (2021). Digital socialization. Children and adolescents in the modern information space. *Obrazovatel'naya politika=The Educational Policy*, 3(87), 38–51. DOI: 10.22394/2078-838X-2021-3-38-51 (in Russian).

Romm T.A.. Romm M.V. (2021). Teaching personal development in the digital age. *Izvestiya Saratovskogo universiteta. Seriya "Akmeologiya obrazovaniya. Psikhologiya razvitiya"=Izvestiya of Saratov University. Educational Acmeology. Developmental Psychology*, 4(40), 360–366 (in Russian).

Schiopu U., Verza E. (1995). *The Age Psychology. The Life Cycles.* Bucharest: Didactica si Pedagogica.

Shamionov R. (2013). Socialization of personality: Systematic-diachronic approach. *Psikhologicheskie issledovaniya=Psychological Studies*, 6(27), 1–9. DOI: 10.54359/ps.v6i27.725 (in Russian).

Shcheglov I.A. (2016). Socialization: Agents, institution, factors. *Obshchestvo: sotsiologiya. psikhologiya. pedagogika=Society: Sociology. Psychology. Pedagogics*, 4, 14–17 (in Russian).

Shih C.-F., Venkatesh A. (2004). Beyond adoption: Development and application of a use-diffusion model. *Journal of Marketing*, 68(1), 59–72.

Smith J., Hewitt B., Skrbis Z. (2015). Digital socialization: Young people's changing value orientations towards Internet use between adolescence and early adulthood. *Information Communication & Society*, 18(9), 1022–1038. DOI: 10.1080/1369118X.2015.1007074

Sobkin V.S., Fedotova A.V. (2019). Social media as a field of a modern teenager's socialization. *Konsul'tativnaya psikhologiya i psikhoterapiya=Consulting Psychology and Psychotherapy*, 27(3), 119–137. DOI:10.17759/cpp.2019270308 (in Russian).

Soldatova G.U. (2018). Digital socialization in the cultural-historical paradigm: A changing child in a changing world. *Sotsial'naya psikhologiya i obshchestvo=Social Psychology and Society*, 9(3), 71–80. DOI: 10.17759/sps.2018090308 (in Russian).

Soldatova G.U., Nestik T.A., Rasskazova E.I., Zotova E.Yu. (2013). *Tsifrovaya kompetentnost' podrostkov i roditelei. Rezul'taty vserossiiskogo issledovaniya* [Digital Competence of Teenagers and Parents. Results of the All-Russian Study]. Moscow: Fond Razvitiya Internet.

Starodubtseva G.A. (2021). On information and digital socialization of preschool children. *Mezhdunarodnyi zhurnal meditsiny i psikhologii=International Journal of Medicine and Psychology*, 4(8), 77–86 (in Russian).

Sutcliffe A.G., Binder J.F., Dunbar R.I.M. (2018). Activity in social media and intimacy in social relationships. *Computers in Human Behavior*, 85, 227–235. DOI: 10.1016/j.chb.2018.03.050

Tapscott D., Barry B. (2009). *Grown Up Digital: How the Net Generation Is Changing Your World.* New York: McGraw-Hill.

Tsymbalenko S., Sharikov A., Maiorova-Shcheglova S., Makeev P. (2012). *Vliyanie interneta na rossiiskikh podrostkov i yunoshestvo v kontekste razvitiya rossiiskogo informatsionnogo prostranstva* [The Impact of the Internet on Russian Teenagers and Young Adults in the Context of the Development of the Russian Information Space]. Moscow: Liga yunykh zhurnalistov.

Zherebin V.M., Alexeeva O.A., Vershinskaya O.N. (2017). Socio-psychological features of Internet users. *Narodonaselenie=Population*, 1(75), 116–124 (in Russian).

Zizek B. (2017). Digital socialization? An exploratory sequential analysis of anonymous adolescent internet-social interaction. *Human Development*, 60, 203–232. DOI: 10.1159/000479082

Zubok Yu.A., Lyubutov A.S. (2021). Semantic space of reality: Structural taxonomy of the foundations of self-regulation on interactions in the youth environment. *Ekonomicheskie i sotsial'nye peremeny: fakty. tendentsii. prognoz=Economic and Social Changes: Facts. Trends. Forecast,* 14(3), 167–181. DOI: 10.15838/esc.2021.3.75.10 (in Russian).

## Information about the Author

Maksim A. Golovchin – Candidate of Sciences (Economics), head of department, Vologda Research Center, Russian Academy of Sciences (56A, Gorky Street, Vologda, 160014, Russian Federation; e-mail: mag82@mail.ru)

Received June 24, 2022.