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**FEATURES OF STUDENTS' SOCIALIZATION IN DIGITAL
INFORMATION ERA**

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Abstract

The article deals with the students' socialization challenges at the time of globalization and the active development of information and digital technologies (IDT), as well as the role of the information and educational environment (ITS) in a student's personality formation and development in higher education institutes. The role and extent of information and computer technologies deployment is the realization of how and in what way, the human sensation has been changing, and will change in the information-digital era. Implementation of the educational potential of new computer technologies and global networking opportunities is an essential education feature, and these technologies are indispensable for a modern person. The educational potential of computer technologies, the targeted opportunities of the information educational space in the development of the process of the subject of education socialization have not yet been sufficiently studied. One can only assume and must carefully study the impact (negative or positive) of the global computer network on the process of socialization of subjects of modern education system. The Internet, as a product of computer technologies development changes the style of life, the structure of leisure-time activities, the nature of interpersonal communication, among students as well. In this regard, the process of students' socialization in the information-digital era has a specific format, this issue will remain the focus of many scientists, specialists, methodologists and other researchers of the phenomenon of the role and influence of computer technology on social and human life.

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1. Introduction

One of the main tasks of modern society is the socialization of the younger generation, and in this process, information and communication technologies (ICT) play an important part, influencing the virtualization of social institutions to a great extent and creating an artificial world by replacing the usual outlook on life with information, integrated by the computer system (Ivanenkov, 1997).

At present, generally accepted norms, criteria and quantitative indicators in social and educational life which characterize the process of generating socialization in subjects of educational activity are being developed. The students' cognitive motivation of network behavior prevails over communicative or game-based, because cognitive motivation is inseparable from educational activity and professional socialization. Thus, the future professional activity and the requirement for career advancement determine the motives of network behaviour.

Under the influence of universal informatization in education, an information and educational environment and cyberspace construction are being developed.

Educational cyberspace as a specific part of the common cyberspace, having an educational goal and characterized by purposeful educational relations with it, changes the usual channels for obtaining information, knowledge and their representation form, as well as the nature of interpersonal interactions. In this space "each subject of education, generating educational interaction along with educational cyberspace, becomes its constituent component and, consequently, the object of pedagogical research (in this respect) (Abdurazakov, Korotnikov & Muhidinov, 2016).

Thus, according to I. G. Shendrik (2004) the educational environment is an aggregate of prototypes necessary for culture to implement and develop it. The new information and educational environment, at the same time, is both a means and an environment for the social development of the individual (Bruner, 2006).

2. Problem Statement

However, the problem is how adequately the computational concept describes the work of our intelligence and whether it makes it possible to significantly improve the effectiveness of training and socialization of the subject of education in the information and digital age.

3. Research Questions

The process of socialization of students in the information and digital age has a special format. Within the framework of the stated topic for discussion and on the basis of the problem we have identified issues related to the process of socialization of the subject of education in the framework of cyberspace. Namely:

- to define the role and place of ICT for students;
- to clarify such fundamental concepts as "information technology", "socialization", "cyber-socialization", "Internet socialization";
- to analyze the field of problems of social and cognitive adaptation of the subject of education;
- to reveal the developing potential and organizational functions of the IEE;

- to study the aspects of socialization of the subject of education and its interaction in the social and information environment.

4. Purpose of the Study

The personality development is influenced by both internal (psychological) and external (social) factors. Within the context of this issue, personality development, its socialization in the cultural and educational space in the digital era, has a special background, since. "Being a complex entity, an individual reflects different influences" (Bartholet, 2013): "... and some aspects of the individuality and character of the interpersonal evolving interactions" (Hazel & Shinobu, 1991) and "... the position of the individual in the social hierarchy" (Vernant, 1980)

According to J.S. Bruner, the main features (methods and means) of modern computer science should basically be applicable to the learning process. However, the problem is how adequately the computation describes the work of our intellect and whether it may significantly improve the effectiveness of teaching. (Bruner, 2006).

The global network is starting to affect the formation and development of the society, and the crucial factor in the development of an individual in modern Russia is the access to information (Castells, 2000). Internet is part of the structure of information technology and occupies a significant place in the information field of students.

At different stages of society informatization and education, the issues of Internet socialization have always been the focus of attention and keep attracting specialists from different areas of knowledge. In the context of this issue (especially influence of modern ICT on socialization) the studies of M. Castells (2000), E. Toffler (1999), D. Bell (1999), M.S. Gusel'tova (2012), T.D. Martsinkovskaya (2012), M. Castells (2000), M. McLuhan (2003) ("electronic communication"); A. Buhl (1997), A. Krocker and M. Weinstein (1994) ("virtualization of social space"); E. Masuda (1997), A. Minakov (2002), A.E. Zichkina (2013) ("sociology of the Internet"); V.A. Pleshakov (2010) ("cyber socialization"); A.D. Andreeva (2014), A.V. Mudrik (2011), G. A. Cherednichenko (2014) and others are examples of a particular interest at a conceptual level.

Questions of introduction of information and communication technologies in educational process, influence of network technologies on socialization of the personality and development of his personal culture, the organization of interpersonal communication are considered in works (Bartholet, 2013); (Bensalem, 2018); (Messaoudi, Hamzaoui-Elachachi, 2017); (Khalil, Ebner, 2016); (Mukala, Buijs, Leemans, Aalst van der, 2015); (Warner-Soderholm, Bertsch; Sawe; Lee; Wolfe; Meyer; Engel; Fatilua, 2017); (Vernant, 1980); (Zhu, Waxman, Rivera, Burlbaw, 2018).

A huge contribution to the development of ideas on a post-industrial society was made by the ideas of Toffler, who puts a special emphasis on the trends of the formation of a new intellectual environment based on computer networks, hence the emergence of a new intellectual environment will lead to the creation of new mechanisms for the socialization of the individual (Toffler, 1999).

The students' socialization issue in the information-digital era acquires special significance in contemporary Russian education system, characterized by the transition from a technocratic to a personally oriented educational paradigm

The aim of the study is to identify internal and external factors of the socialization process of education subjects and mechanisms of this process, that is, the study of the formation of the process of socialization of students in the information and digital age.

5. Research Methods

The research methods are the study of sociological, psychological, pedagogical research on the problem systematization, generalization, description, as well as critical interpretation of the facts when considering approaches to solving the problem of socialization of students in the information and digital age and globalization of education. For qualitative and quantitative analysis of the content of documents in order to identify internal and external factors of the process of socialization of educational subjects reflected in these documents, the method of content analysis is used.

6. Findings

The personality development of any subject of education, including a university student in the modern information age, lies in acquiring new, invariant properties of this personality as a self-governing information and psychological system. That is, this development is a qualitative change of a personality. In regard to the subject of education, by his development we mean personal improvement, which is in full accordance with the development of society, the information environment. Hence, the personal development of a university student should be considered as a qualitative development of the is personal culture, which subjectively expresses the culture of society.

As one of the most important areas of personal development, socialization of the subjects of education, which is considered in pedagogy as "the integration of a person into the social system, entering the social environment through acquiring its social norms, rules and values, knowledge, skills, allowing it to successfully function in society", (Online explanatory dictionary: Wikipedia en.wikipedia.org), and in the sociological context considered as a process providing the inducting the individual into a particular social group, community or social space as a whole (Panova, 1993) is becoming one of the most important trends of personal development.

American sociologist Franklin G. Giddings is considered to be the author of the term "socialization" with reference to the person who in 1887, in the book "The theory of socialization", used it in a sense similar to modern, "the development of the social nature or the character of the individual" (Giddings, 1896).

Socialization (from Latin *socialis* - social) is the process of absorption by the individual of social experience, system of social connections and relations. "Socialization should be understood as the whole multifaceted process of assimilating the experience of social life and social relations (Meshcheryakov, Zinchenko, 2003).

However, it should be noted, that the socialization of an individual as an independent personality exists forever, since he lives in the social sphere. It is a constant, continuous process that takes place throughout his life. The issue here is, firstly, in a more intensive and focused socialization of the subject, and secondly, in the aspect of its interaction with the social and information environment of modern society. Thirdly, the student's socialization is considered, at one hand, necessary for its constructive,

effective and legitimate interaction with the IEE (information and education environment) the media environment, at the other hand, developed under their positive impact.

6.1. Socialization of the subject of education and aspects of its interaction in the social and information environment

Higher education is an independent social cognitive system, where any subject of study at a higher education institution is a full subject of the social environment and lives in accordance with the social structure and moral foundations of society. However, during the period of global informatization, rapid development of communication and information communication, the socialization of subjects of education not only becomes a necessity, but also puts forward new requirements.

Educational interaction, being informational, "is social and socially expressed, which must be reflected in each of its active systems, in every subject" (Korotnikov, 2013).

Socialization of the educational sphere is expressed, firstly, in the informatization of education and educational environment (IEE) in social legal, philosophical aspects, in information culture, and secondly in the implementation of these aspects into informational education.

Socialization is a complex process and is considered in pedagogy as an internally structured phenomenon in various aspects. A. V. Mudrick suggests the following definition:

"The essence of socialization is the combination of adaptation and isolation of a person in a single society.

Adaptation (social adaptation) is the process and the result of the two-way activity of the social environment and the subject ..., the becoming of an individual a social being.

Separation is the process of autonomization of a person in society", (Mudrik, 2011).

That is, socialization is viewed in combination of two seemingly contradictory processes that constitute a single whole in their integration, provided their combination is balanced. "Adaptation suggests harmonization of requirements and expectations of the social environment concerning the person with his attitudes and social behavior; coordination of self-assessments and claims of a person with his capabilities and social environment realities" (Mudrik, 2011)

Separation is reflected in the formation of the subject's need to have its own views on the world and the life phenomena, value attachments, the right for independent personal decisions; ability to resist phenomena impeding his self-determination, self-realization, self-development; self-affirmation as a personality.

Hence, these two processes of "counter-activity of the subject" constitute a dialectical unity in its socialization, out of which it cannot be realized or will be one-sided and have negative results.

The socialization of the subject of education as a subject of the social cognitive environment is expressed, in particular, in the following:

- its self-identification as a subject of the social and information environment and IEE, informatization of the society and education in the aspect of its information rights, duties and responsibilities;

- in its readiness for a productive (effective, lawful, safe) information interaction, the ability to organize a personal IEE;

- the ability of the subject for self-discovery and self-identification as a personal social informational system, self-development and self-education (Korotnikov, 2013).

From the above, we can draw the following conclusions that in the social cognitive adaptation of the subject includes two counter processes that assume their integration in a balanced combination:

1. The process of adaptation in the social and information environment, in the educational sphere as a subject with its informational cognitive and social and cultural needs and the ability to fulfill them, i.e. having the appropriate information and communication competence; as a subject aware of his responsibility for the state and security of the environment in his interaction with it, i.e. possessing the necessary personal informational culture.

2. Separation, self-affirmation of the subject as a full subject of the social and information environment and educational sphere is expressed in his ability to self-organization and self-management in his interaction with the environment, in the formation and development of personal IEE and media environment; in the knowledge of their personal informational rights and the ability to protect them.

3. The social information environment and the media environment serve in these processes as a source of indirect influence with inverse relationship, which, according to the purpose of these environments, is positive. Inverse relationships, expressed in the subject's influence on the environment, are not always positive, due to insufficient or incomplete adaptation of subjects or as a result of unbalanced processes of "counteractivity of the subject". Therefore, along with the formation of information competence, it is necessary to develop personal information culture and media culture of subjects of education.

6.2. Developing capabilities and organizational functions of the IEE

A characteristic of the socialization of the subject of higher education is that his personal environment (IEE, media environment) goes far beyond the IEE of the university, due to relatively greater personal creative activity in project, cognitive, social and cultural activities. It is known that the influence of the social and information environment is heterogeneous: inaccurate information, misinformation, which has a negative informational and psychological effect on the addressee may be present. Therefore, it is necessary to develop both the competence of the student in targeted navigation in the informational cognitive space and the personal culture of informational interaction, , which at one hand provide the invariance of the student's condition and resistance to negative informational psychological impact of the environment, and at the other, readiness to counteract these negative phenomena.

It should be noted that modern secondary education also includes active interaction of students in the environment and, consequently, their socialization, expressed in adaptation and isolation. Therefore, new students already possess media competence and media culture formed in the senior classes of the school, as well as a critical, although insufficient attitude to information. Nevertheless, this is the second characteristic of university education: there are certain basics in the personal development of the subject, which must be evolved in the right direction in terms of continuing socialization.

Moreover, at a certain stage of the student's personal development and, consequently, his socialization, his social and cultural basics become invariant and stable with respect to possible negative environmental impacts, and he is ready for self-development and self-determination in it.

That is, at a certain stage of a university student socialization, his isolation and, consequently, self-affirmation as a full personality, representative of the society and the social and information environment end. This is also a characteristic of university study, and one of the main tasks.

The role of systems and methodology for managing interactions in the information environment, the optimization of these relations, the knowledge of the order and the rules for their implementation, the competence of subjects of education in the processes of effective and lawful implementation of information interaction is growing.

The world outlook, social and cultural and cross-curriculum orientation of teaching implies the realization of the educational, philosophical and social and cultural functions of the IEE, or rather, its educational, philosophical and social and cultural resources will promote the realization of this area of subject teaching.

The importance of organization components of the educational competence of students is growing:

- "operational" competence is the subject's capacity to adapt to a specific operating environment, which usually has a local character of manifestation (algorithms, models, computer operating environment, etc.);

- "organizational" competence of the subject of education means his ability to organize his information interaction (in accordance with the rights and responsibilities), knowledge of the basic rules of subject-subject and subject-object relations, knowledge of the methods of their implementation, the order in which efficiency and security should be increased.

The organizational competence of the subject of education is one of the results of the manifestation of the systemic approach, its implementation in education, in information education. It expresses the willingness of the subject for a productive system (intersystem, metasystem) interaction in the social and information environment, the scientific and educational sphere, the IEE. This is an expression of the tendencies for increasing the role of the personal development of the subject of education, the developing and organizational aspects of the IEE of the university and media environment.

Immersing himself in the information environment, the subject of teaching gets the opportunity to receive any information of his interest, and by implementing a sequence of hyperlinks, find the information that can be interesting for him. Reliance on formal, systemic and informative indicators of information greatly contributes to the conscientious behavior of the subject in the environment, directing him towards the desired result provided by the teaching program, general or individual. It's only possible to control his independent informational cognitive navigation indirectly, which can be expressed in the following:

- the presence of the goal of interaction determined by the training system that doesn't permit the subject to detract to the undesirable for this system places;

- availability of a system for assessing the results of navigation in the environment, control and the appropriate correction.

The productive interaction with the media environment requires the formation of media competence of the subject of education, meaning "the integrative quality of the individual, evident in the ability and willingness to select, use, critically analyze, evaluate, create and transmit media texts in various types, forms and genres, implementation of media processes in society. This competence is

aligned with competencies related to self-education, self-development, which are essential for all academic subjects" (Panova, 1993; Noskova, 2011).

It is necessary to develop the student's critical attitude to information, which means the following:

- the subject's invariant ability to evaluate and analyze the objectivity and reliability, ethical correctness, connection with reality, social and cultural and moral values of the new information;
- the ability to differentiate information of the environment according to its usefulness for his own socially conditioned personal development.

The subject's critical attitude to information is an important part of the personal information culture, including its media culture and safe media culture. It is necessary to foster the subject's ability to evaluate the quality and reliability of information, which will allow him to distinguish between positive and negative, informative and useless information.

The subject's critical attitude to information entails his ability to critical thinking, by which we mean intellectual and imaginative thinking in the process of acquiring knowledge, which includes finding ways to solve problems rationally, analyzing and synthesizing, evaluating his own and other information, revealing its positive and negative aspects. The formation of critical thinking involves "the generation of a basic attitude towards oneself and the world, implying a differentiated, independent, meaningful position. This position significantly increases the credibility of education - since it becomes conscious and reflexive and enhances the communicative potential of the individual", (Zagashev, 2004).

That is, critical thinking is a synthesis of the conscious and reflexive thinking of the subject, creating his ability to use the received information efficiently, rationally and safely for his personal development and self-development.

The formation of critical thinking under the influence of the informational cognitive environment and the media environment of society is also a feature of higher education.

7. Conclusion

Thus, as a result of an active, productive interaction of a university student with an informational and cognitive and social cultural environment, his personal knowledge and culture development, his critical thinking evolves on the basis of his ability to criticize information that is expressed in his ability to use it correctly and legitimately:

- comprehension and differentiation of information received;
- systemic analysis of information based on the application of relevant search criteria to it and its characteristic features;
- determining synthetic properties of the information studied on the basis of its analysis;
- generation of derivative information based on effective use of information resources of the environment;
- systematization of personal IEE information on the basis of its invariant interactions and natural interrelations.

At the same time, the ability to critical attitude to information and critical thinking are derivatives. It is necessary to have a certain level of information culture of the subject that does not permit him to go beyond the ethical norms of relations in the environment.

The internal subject's potential providing the elimination of the possible negative information impact from the external environment is required. It is necessary to develop the student's spiritual and intellectual culture, the formation of appropriate qualitative characteristics of the individual.

The ability to critically evaluate, analyze media information in accordance with the requirements of education, conscious goals of self-development, subject's self-education are an expression of the general information culture of the individual, the key to its resistance to all possible negative influences of media information.

The information subculture of working with information is an invariant property of the individual, not just "acquiring" relevant knowledge and skills, but possessing the needs of their application.

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References

- Abdurazakov, M.M., Korotnikov, Yu.G., Muhidinov, M.G. (2016). *Educational space representation in cyberspace*. SHS Web of Conferences. 29. p. 01001. DOI: <http://dx.doi.org/10.1051/shsconf/20162901001>
- Andreeva, D.A. (2014). On the concept of adaptation. Study of adaptation of students to the conditions of study at high school. *Man and society*. pp 79-81. [in Rus].
- Bartholet, J. (2013). Students Say Online Courses Enrich On-Campus Learning. *Scientific American Magazine*. 8, pp 37–42.
- Bell, D. (1999). *The coming of post-industrial society. A venture of social forecasting*. Moscow: Academia, pp 956. [in Rus].
- Bensalem, E. (2018). The Impact of WhatsApp on EFL students' Vocabulary Learning. *Arab World English Journal*. 9(1), pp 2-38. DOI: <https://dx.doi.org/10.24093/awej/vol9no1.2>
- Bruner, J. (2006). *Culture of Education*. Moscow: Education, pp 223. [in Rus].
- Buhl, A. (1997). *Die virtuelle Gesellschaft. Ökonomie, Politik und Kultur im Zeichen des Cyberspace*. Opladen.
- Castells, M. (2000). *Information Age: Economics, Society and Culture*. Moscow: SU HSE. pp 608. [in Rus].
- Cherednichenko, G.A. (2014). *Educational and professional trajectories of Russian youth (based on sociological research materials)*. Moscow: TSSP and M., pp 560. [in Rus].
- Giddings, F.H. (1896). *The principles of sociology. An analysis of the phenomena of association and of social organization*. New York : Macmillan., XXVI, pp 476.
- Gusel'tova, M.S. (2012). Information socialization in post-industrial culture. *Modern social psychology. Theoretical approaches and applied research*, 3, pp 20-35. [in Rus].
- Hazel, R. M., Shinobu K. (1991). Culture and the self: Implications for Cognitiv, Emotiom, and Motivation. *Psychological Review* 98 (2), pp 224-253. DOI 10.1037/0033-295X.98.2.224
- Ivanenkov, S.P. (1997). Actual problems of socialization of youth. *Credo*. 3, pp 153-160. [in Rus].
- Khalil, M., Ebner, M. (2016). Learning Analytics in MOOCs: Can Data Improve Students Retention and Learning? *World Conference on Educational Media and Technology*. 1, pp 581–588.
- Korotnikov, Yu.G. (2013). *Textbook "Information educational environment of primary school"*. Moscow, Academy IT, pp 152. [in Rus].
- Kroker, A., Weinstein M. (1994). *Data trash. The theory of the virtual class*. Montreal.
- Masuda, E. (1997). *Information Society as a Post-Industrial Society*. Moscow: Academy. [in Rus].

- McLuhan, M. (2003). *Understanding Media. External Extension of Man*. Moscow, Academy, pp 464. [in Rus].
- Martsinkovskaya T.D. (2012). Informational socialization in the changing information space. *Psychological researches*. Vol. 5, 26, pp 7. Retrieved from: <http://psystudy.ru> [in Rus].
- Minakov, A.V. (2002) *Some psychological properties and features of the Internet as a new layer of reality*. Retrieved from: http://sbiblio.com/BIBLIO/archive/minakov_some_psihological_properties/ [in Rus].
- Mudrik, A.V. (2011). *Socialization of man. Training. manual for universities*. Moscow, Academy, pp 624. [in Rus].
- Mukala, P., Buijs J., Leemans M., Aalst van der W.M.P. (2015) *Exploring Students' Learning Behavior in MOOCs Using Process Mining Techniques*. Eindhoven, Eindhoven University of Technology, 2015. – 26 p.
- Mukala, P., Buijs, J.C.A.M. & Aalst, van der, W.M.P. (2015) *Exploring students' learning behaviour in MOOCs using process mining techniques*.BPMcenter.org. 26 p. (BPM reports; vol. 1510)
- Messaoudi, N., & Hamzaoui- Elachachi, H. (2017). An Analysis of Algerian Manufacturing and Engineering Master's Students' Needs. *Arab World English Journal*, 8 (4), pp 268-279. DOI: <https://dx.doi.org/10.24093/awej/vol8no4.18>
- Meshcheryakov, B.G., Zinchenko V.P. (2003). *Socialization. The Big Psychological Dictionary*. Saint-Petersburg, Prime-Euroznak. Pp 632. [in Rus].
- Noskova, T.N. (2011). *Information technologies in school subjects of a humanitarian profile*. Congress of teachers of computer science in Moscow State University. Moscow, Moscow State University. [in Rus].
- Pleshakov, V.A. (2010). Integration, Cybersocialization and Social Education. Student and Teacher in the Information Space. *Pedagogical Education and Science*. 1, pp 27-31. [in Rus].
- Pleshakov, V.A. Mudrick, A.V. (2011). *The theory of human cyber socialization. Monograph*. Moscow, MPSU, pp 400. [in Rus].
- Panova V.G. (1993). *Russian Pedagogical Encyclopedia*. Moscow, Pedagogika, pp 752. [in Rus].
- Toffler E. (1999). *The Third Wave*. Moscow. ACT, pp 781. [in Rus].
- Shendrik, I.G. (2004). Self-development of personality in the context of designing education. *Pedagogy*. 4. [in Rus].
- Vernant, Jean Pierre. (1980). *Myth and Society in Ancient Greece*. Sussex, Harvester Press.
- Warner-Soderholm, G; Bertsch, A.; Sawe, E; Lee, D.; Wolfe, T.; Meyer, J; Engel, J.; Fatilua, U.N. (2012) Who trusts social media? *Computers in human behavior*. V: 81. Pp 303-315. DOI: 10.1016/j.chb.2017.12.026
- Zagashev, I. (2004). New pedagogical technologies in the school library. An educational technology for the development of critical thinking by means of reading and writing. *The library at school*. 17, pp 56-61. Retrieved from: <http://lib.1september.ru/2004/17/15.htm>. [in Rus].
- Zhichkina, A.E. (2013). The Relationship of identity and behavior on the Internet users of adolescence. *Flogiston*. Retrieved from: http://flogiston.ru/articles/netpsy/avtoref_zhichkina [in Rus]. (accessed 09.04.2018)
- Zhu, G, Waxman, H, Rivera, H., Burlbaw, L.M. (2018). The Micropolitics of Student Teachers' Professional Vulnerability During Teaching Practicums. A Chinese Perspective. *Asia-Pacific education researcher*. V: 27, 2, pp. 155-165. DOI: 10.1007/s40299-018-0374-5