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Keywords: *Social Informatics, philosophy of information, education.*

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Social Informatics today and tomorrow: status, problems and prospects of development of complex lines in the field of science and education

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We consider the current state and current problems of development of Social Informatics in Russia as an important direction in science and education, studying information processes and systems in a modern society in terms of globalization and informatization of the complex. Russian scientists set out the approach to the study of Social Informatics in the education system at the time of his substantial upgrading in terms of becoming an information society.

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1 Social Informatics - scientific basis of the Information Society

Studies show that one of the most important social trends of civilization in the 21- st century is the transition from an industrial to an information society, in which the main targets and the results for the majority of the employed population will be information products and services. Therefore, today there is an objective social need for a systematic study of the information society, creating in this field of scientific knowledge and disseminating them through a modernized educational system. Legitimate reaction of science to this new social need was the establishment of the new directions of research in the field of informatics, which appeared in Russia in the mid 80-ies of the 20 - th century and became known as *Social Informatics*.

The founder of this direction, in its modern sense, was a famous Russian philosopher Ursul A.D. [1], which proposed a conceptual approach to defining the basic goals and tasks of Social Informatics, linking them with the global problem of informatization of society, in which being «socialization» the most important achievements of Informatics. In his works he showed that the process of informatization of society must be socially-oriented by its very essence. This means Informatics and information technology make it only as tools that serve a man so that he can better master the information and use it for social progress. It is also one of the first pointed to the crucial importance of humanistic orientation of the information society, which must not evolve spontaneously, as it not only creates new opportunities for the individual and society, but also new threats [2].

This is what determines the relevance of the complex scientific research aimed at studying the regularities of the process of informatization of society and on this basis of scientifically sound concepts, predictions and recommendations for the formation of the Information Society, held in the field of international, national and regional scientific and technical, economic, educational and cultural policy.

The solution of these problems and to promote social science as fundamental and applied sciences, which should be a scientific basis is already emerging in our world of global information society, which some scientists see as the new, higher stage of civilization.

2 The object and subject of Social Informatics research and its main goal

Social Informatics is a typical example of a new interdisciplinary scientific field, which is formed at the junction of several natural and human sciences under the influence of integration arising from emerging in recent years the social need to develop the scientific base of the postindustrial society - the information society. In [3-5] in some detail argued the legality of the allocation of Social Informatics as an independent scientific discipline. The criteria are the existence of their object and purpose of the study, as well as the characteristic of the discipline of how to undertake research.

The object of the study of Social Informatics serve all of the information reality of our world in the social sphere of society. In other words, the discipline of studying the set of all types and forms of information in society, as well as information processes, technology, systems and communications, which have social significance for the sustenance and development of man and society.

With respect to *the subject of Social Informatics research*, it represents only a certain set of properties of the object of research. Such a combination at this stage of development of Social Informatics should recognize the global process of informatization of society and its impact on social structures, as well as the role and position in society the individual.

In doing so, we would like to emphasize that this effect is bilateral, ie, social structure of society and people's attitude to the process of informatization, in turn, have a significant impact on the nature and pace of development of this process.

Thus, the fundamental problem of Social Informatics as science is the problem of coordinated development of the society and its global informatization [2]. This problem is now especially important and relevant as it is most closely connected with the problem of overcoming the crisis of modern civilization and its transition to a path of sustainable and sound development based on the mastery of information and widespread use of new knowledge and technologies.

The main objectives of studying the problems of Social Informatics should be the identification and analysis of new opportunities for human development and society in the new reality of information, as well as new threats and risks to their livelihoods, which already exist or may arise in the future.

3 The concepts and methods of Social Informatics

Problems of *new information reality* of becoming an information society is now so urgent and important that should be systematically studied in various scientific disciplines. Among them, it's necessary first to make sociology, political science and economics, and psychology, pedagogy and cultural studies.

The main difference in approaches to studying these problems from the Social Informatics is that in this approach is the fundamental scientific hypothesis Informatics. Its essence is that the world around us has the property information and therefore the unity of the regularities of the phenomenon of information in nature and society should have a common primary. Therefore, the fundamental basis for the development of Social Informatics is the achievement in the field of philosophy and theoretical foundations of Informatics, which today is seen in Russia as the basic science, are becoming increasingly interdisciplinary and philosophical significance.

As for his own scientific methodology of Social Informatics, it should be recognized that it is currently still in the stage of formation. An important distinctive feature of this method is the use of long \rightarrow aggregate different types of scientific approach to the analysis and synthesis of the issues and processes. The main of them are informative, systematic, koevolutsionny and social approaches.

The essence of *the information approach* is that when studying a process or phenomenon in the first place made him the information aspects. Experience has shown that very often it allows us to see many of

the seemingly familiar and well known processes and phenomena in a completely new light, to reveal the global nature of the information, which in many cases and is the main cause of the time → development of these processes.

Koevoluytsionny approach to Social Informatics was proposed by A.D. Ursul. Its meaning is the need of unity and mutual indissociable the development of society and its information, they coordinated development.

Social approach to the problems studied by Social Informatics, is that these studies focus primarily on social aspects of the process of informatization, its humanistic orientation. These include, primarily, the problem of the formation and development of information society, new opportunities and challenges of democratization, freedom of information and security rights, etc.

Methodological apparatus of Social Informatics, other than specified above → governmental approaches, also includes information and *methods of modeling the process*, as well as traditional methods of social sciences for social monitoring, forecasting and management. It can be assumed that the composition and power of methodology of Social Informatics in the coming years will grow rapidly with the expansion and deepening of its subject area and the appearance must → the need to meet new challenges imposed by development practice, the information society.

4 The structure of the subject area of Social Informatics

The detailed structure of the substantive areas of Social Informatics as a distinct academic discipline was first held in Russia [3-5,8,9]. Discussion of these results was carried out at a meeting of the Presidium of the Russian Academy of Natural Sciences, as well as a number of academic seminars and conferences on Informatics in particular, the II-nd UNESCO International Congress «Education and Informatics». Russia's national report to the Congress to «Social Informatics» was included as one of four main sections of the new perspective the course «Fundamentals of Informatics», which was recommended for the advanced education system [6].

This was made following four main areas of research:

1. *Information resources of society*, their properties, structure and topology. The study of the needs of society in the information resources to achieve the objectives of social development (the problem of insufficient information).
2. *Information capacity of the society* that determines its ability to create and effectively use information resources. This should include all of the problems associated with the formation of an information infrastructure and information environment of society, ie establishment and operation of generation, storage and dissemination of information resources, as well as development tools for the strengthening and effective use of information resources, the problems of availability of information.
3. *The Information Society*, patterns and problems of its formation and development. This includes the problem of development of the information economy, as well as changes in the structure of employment in the information society. With new data items seen here and the problem of the democratization of society, in which a special role to play accessible to all its members the necessary information and its reliability as an essential condition for the practical realization of civil rights and liberties. Essential to solve these problems is the development of intellectual potential of society, ie its ability to produce and absorb new knowledge, as well as the development of information culture of the society, describing its ability to adapt to the development of the new information environment of human existence.
4. *Humans in the Information Society*. It explores new opportunities and new challenges of personal development in the information society, information and processes of education rights, the development of his creative abilities through the use of creative achievements of science and information technology. The problem of freedom of information and information security rights in the information society, to overcome them with the technological and linguistic barriers in the new information space. Practice has shown that this structure is problematic for social science, as an independent interdisciplinary

scientific direction was quite good, as mentioned above the main problems that make up this region, still remain very important and relevant.

5 Social Informatics and the scientific outlook

The systematic and comprehensive study of the new information and the reality of the global information society, using methods of Social Informatics seems very important today not only from a pragmatic point of view, but also a humanitarian aspect, because it promotes the formation of the people of modern scientific outlook. In conditions of information society significantly altered not only the usual stereotypes of people's behavior, but also their traditional perceptions of space and time, wealth and poverty, equality and inequality, freedom and responsibility, quality of life. Indeed, today the quality of human life is largely determined by the availability of necessary information and advanced information communications, as well as the level of consumption of information products and services.

In modern society emerged and are increasingly using such new concepts as the *digital divide*, *information poverty*, *information culture identity*, *e-government*, and many others. Rapidly evolving *information economy*, which in some countries such as India, is becoming an important source of exports and create more jobs for educated people. In many countries, including Russia, are increasingly developing *a open education systems*, based on the use of digital educational resources and distance learning technologies.

Information security is becoming one of the most important condition for ensuring national and international security, as well as the personal security of each person [10]. Today's global financial and economic crisis there is a very good example. At the present stage of knowledge society, is beginning to realize the strategic importance of the development of linguistic and philological culture of the individual and society. Indeed, the language - this is not the only means of communication, but also a means of cognition, it is «space of thought», needed for modeling the world in the mind of man.

6 Social Informatics and Education

Social Informatics is developing actively in Russia for 20 years, starting in 1989. At the present time - is one of the most important parts of Informatics, a scientific basis for the formation of information society in Russia, as well as to explore new opportunities and new challenges in the human conditions of a new information environment and professional life. Many of the problems of Social Informatics has taught in secondary and tertiary levels, as well as in scientific training and professional development of graduates. However, the system of higher education of Russia today faces a new topical issue - to produce millions of our citizens, and especially the new generation for life and professional activities in the global information society.

The analysis shows that, in order to resolve this problem, significantly more than it is today, the information orientation of the content of the educational system design solutions here could be a broad introduction to the system of general education discipline « Social Informatics », which has as its purpose to ensure the formation of human knowledge and skills needed by them in highly automated information environment.

The experience of studying the course of Social Informatics in Russia. Russia is the world leader in the field of scientific study of Social Informatics and methodology of studying these problems in the education system. Suffice to point out that the term « Social Informatics » was proposed in Russia for more than 20 years ago. Over the years there has been an evolution of a complex content of the term, and today it means a certain and very large section of computer science, which examines the basic patterns and forms of information in society, as well as the ways and problems of its social use.

As for the study of Social Informatics in higher education, this process began in Russia in the late 70-ies of the last century, when have come to realize the social significance of the information society and, therefore, in a number of Russian universities have been established specialized department of Social Informatics. In Russia also chairs the Association of Social Informatics, which continues its work to date.

In the mid 90-ies of the last century at the Moscow State Social University (now the Russian State Social University) on the initiative of the Institute of Informatics Problems of the Russian Academy of Sciences was established first in the world of Social Informatics faculty, which has successfully operated for five years and produced a significant number of professionals with expertise sociologist -informatics.

The experience of the educational activities of the faculty reported in the m II-UNESCO International Congress «Education and science» [6], was approved by the Congress and has since been used in a number of educational institutions of Russia.

Methodological Support course. The first pilot program training «Social Informatics» for the higher education system, which takes into account the scientific and methodological recommendations of UNESCO, was created in 1997 at the Institute of Informatics Problems of the Russian Academy of Sciences, with the active assistance of the UNESCO Institute for Information Technologies in Education.

For subsequent years, the program has been developed to a full basic modular program of educational discipline, which is represented on the Internet and is well known to professionals working in the field of education [7].

In line with the content of this basic modular program was developed and a training manual, which was issued in 2000, then reissued in 2003 along with the text of the modular training courses « Social Informatics » for the higher education system [8,9]. In the Internet today, there are numerous references to these publications, which indicates a high demand for this course in the Russian education system.

Prospects for further application of social science courses in the Masters program of Russian universities. In 2008, the specialists of Russian Academy of Sciences together with scientists and teachers of the Siberian Federal University of proposals to substantially increase the range of educational courses in this area for the master's system of teacher education. Academic Discipline, " Social Informatics " is fundamentally new in the Russian system of higher education graduate.

The main objective of this discipline is to provide the trainees a full system of the modern processes of development of the global information society, emerging with the information, socio-economic and psychological problems, as well as ways to solve them through the use of modern means of information and advanced information technologies. The discipline focuses on the formation of the Masters and system competence in the field of information society development, as well as the modern scientific worldview.

7 Future direction of Social Informatics

Strictly speaking, the problem of research in the field of Social Informatics is not limited to problems of information and development of information society. Many socially important manifestations of the phenomenon of information does not necessarily relate to the information, and social science should study and also those of the information reality.

Therefore, among the most topical and promising directions of further development of Social Informatics include the following:

1. Integrated development issues of electronic information resources and their effective use in different spheres of society.
2. System of a study on the global information society based on knowledge and related issues of science, economics, education and culture.
3. Exploring new opportunities for human development in the information society, including his intellect, creativity and moral qualities.
4. Investigation of new threats and challenges in the human issues of information security and human society, including new and poorly studied phenomenon of the digital divide, information crime, computer illness, manipulation of consciousness, virtualization of the society, as well as various types of conflict in the field of information and information war [11,12].

Conclusion

The complex study of Social Informatics, not only in academic science, but in the modern education system is now extremely relevant and socially important problem whose solution requires joint efforts of the international research and education community and, of course, the proper modernization of education and training of scientific and pedagogical personnel.

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