

IMPORTANCE OF INFORMATION TECHNOLOGIES IN THE CONTEXT OF MODERN SOCIETY

Farida Khursanboyeva Sohibnazar qizi

Student of Kimyo international university in Tashkent


Phone number: +99899 447 77 42

Abstract. *In the modern world of knowledge and information, with the transition from industrial to information society, knowledge and competence are granted the greatest attention. Due to the changes in social, technical, educational and other environment, information, knowledge and skills quickly become outdated in modern society; therefore, the need for lifelong learning and continuous development of new skills arises. It becomes more and more clear that in this maelstrom of changes the education change is also inevitable and covers transition from teaching to learning concept. Application of innovative learning ways and methods based on the wide information technology use which allows expanding education beyond the formal school borders, individualizing, making it more accessible and flexible becomes highly significant. In order to respond to the global trends, reforms of educational systems are carried out in many countries. The purpose of such reforms is an attempt to change the way of thinking in terms of teaching and learning, to lay the foundations of lifelong education and to require the innovative learning methods. Today it is e-learning or digital learning, distance learning, open learning, use of digital tools in the learning process.*

Keywords: *information technologies, digital learning, information society, modern society, innovative learning methods.*


In the 21st century, the humanity lives a highly challenging time. Under the influence of globalization, integration processes as well as the development of information communication technologies, the modern world is in the state of metamorphosis in all life spheres, including education. The growth of technologically mediated information has been quantified in different ways, including society's technological capacity to store information, to communicate information, and to compute information. Information age has forced society to obtain a new quality, described by Drucker (1993) as a knowledge society, where high standards of professional activity and life are conditioned by knowledge as a major component. In the age of information knowledge and competence are






denounced to date because of rapidly changing and increasing requirements. The complexity and uncertainty are the key words that define the dynamics of modern society that values knowledge and knowing. Such society strives to become a lifelong learning society in order to constantly update and gain new competences (Langner, Kaftan, 1999). Its citizens are going to be the ones who live a successful life, because they know how to learn, how to transform their knowing into effective action by means of their reasoning and creative powers. The idea of knowledge or information society was developed in the 7th decade of the 20th century. T. Umesao was the first to use the concept of information society. Japanese scientists were the first to delineate the information society. The ideas under consideration were rapidly spreading in the USA and Europe (Machlup, 1962); their development was encouraged by the works of such famous authors as Porat, Rubin, Stonier, Katz (Porat, Rubin, 1977, Stonier, 1983, Katz, 1988). How can information society be defined? According to Y. Masuda (1980), one of the most famous researchers of information society, the main driving force for the development of information society will be production of information values. The technologies will be widely used, and through information technologies a person will be able to carry out work which in the past could not be performed at all. Y. Masuda anticipated that in the context of information society, changes will also occur in education, which will expand beyond the formal school borders, will be individualized, selfeducation will cover all areas of activity, and educational processes will be lifelong. The conception of information society can be explained by analysing the concept of social trends. It forms the base for the theory of the widely known social thinker A. Toffler (1970); the ability to learn became one of the substantial competences in order to be literate in the modern society. According A. Toffler, knowledge is the central resource in the economy of the information society (Dyson et al, 1994). A. Toffler suggested portraying human development through three waves presenting the changes in priorities of society over time: wave 1: agrarian; wave 2: industrial; wave 3: information. In the agrarian society, economic activity was mainly related with the manufacture of food products, and a limiting factor for the activity was utilized agricultural area. In the industrial society, economic activity was oriented towards the manufacture of goods, and a limiting factor for the activity was capital. In the information society, economic activity is based on preparation and use of information for effective functioning of other production forms, and a limiting factor is the available knowledge (Otas et al, 2001). In economic sense, knowledge becomes a basis for modern economics, and transition from property economics to knowledge economics is observed. In industrial society, the motive power





revolution resulting from the invention of the steam engine rapidly increased material productive power, and made the mass production of goods and services and the rapid transportation of goods possible. In the information society, ‘an information revolution’ resulting from development of the computer will rapidly expand information productive power, and make the mass production of cognitive, systematised information, technology and knowledge possible. In such situation, even in the area of traditional professions, a more active use of IT as new tools and methods is observed. This changes the requirements for labour market actors and redistributes labour force among separate economic sectors anew (Denisov, 1998). Concept of telework, when workplace is transferred to virtual space, appears. This encourages the rise of such work forms as electronic business (electronic trade in particular). Electronic shops, supermarkets and new forms of customer service are developed. Telemedicine also becomes more and more popular – provision of data on a patient, independent of his/her location, and required consultation is carried out through IT. New opportunities are offered to the users by electronic libraries, publishing, banking, etc. There are plans regarding electronic state governance, electronic democracy, when any citizen will be able to regularly receive relevant information about draft and approved resolutions, decrees, laws. The information received can be analysed and offers can be transmitted to respective institutions. Many aspects of social activity are transferred to electronic space and become accessible through web-based communication. In summary, information society can be defined as educated, learning and open society the members of which are able to apply modern information technologies in all areas of their activity, know how to use national and global sources of information, while the authorities ensure the accessibility and reliability of information. Information, knowledge and data must be easily accessible to each member of such society. The citizens obtain the right to take part in the management of society and politics not only in theory but also in practice. This can be ensured only with high level of IT use – by developing modern infrastructure of the country. On the other hand, the citizens should have sufficient IT literacy. General literacy – the ability to read and write – will not suffice; the skill of using new IT tools should be developed. This requires society members to be ready for the lifelong learning. Naturally, in the light of these changes, the educational system is in the focus of attention. It refocuses on the development of competences. Economic expectations of information society spotlight the cognitive ability, its expression in practice, constant learning, creativity. In order to respond to the said global trends, reforms of educational systems are carried out in many countries. The purpose of such reforms is an attempt to change the way of thinking






in terms of teaching, learning and education, to lay the foundations of lifelong education and electronic learning at the very beginning of educational process. In the information society, there is transition from the concept of teaching to that of learning (Jucevičienė, 2007). Practical implementation of this concept requires the new learning methods. Today it is e-learning or digital learning, distance learning, open learning, use of digital tools in the learning process. It can even be stated that IT is sometimes a dominant part which defines the learning process realization opportunities and inspires new innovative learning methods. In other words, along with new research on brain activity, achievements in psychology and education, IT provides many opportunities to teach and learn in a different manner. A modern teacher should be open to innovations and be able to apply them in his/her activity, continuously improve professional and technological competence (Čiužas, 2011). He/she must understand that in order to work successfully new competences should be continuously developed, and innovations, in the IT field in particular, should be taken up. Various interactive software can be used to strengthen the interaction between student and teacher. Interactive activity is a very wide concept and is still studied. Therefore, there are many interactive tools and they cover various modern media measures, e.g.:

- Interactive whiteboards;
- Educational programmes;
- Educational games;
- Virtual learning environment;
- Online web pages for learning.

One of the up-to-date and popular interactive learning tools is interactive whiteboard. It is an electronic device which can make writing surface interactive. The interactive whiteboards are much more convenient because there is no need to install interactive device and search for a writing board every time. The interactive boards become similar to big computers whose screen is a writing board of an interactive device, and computer mouse – special pen. The interactive whiteboards are available in different sizes. In addition to the regular computer programmes, special educational programmes are developed for the interactive whiteboards; different software is used. The programmes are controlled by touching the whiteboard surface with electronic pens. The interactive whiteboard programmes can be also controlled via special devices from a distance. The educational programmes facilitate the learning process. It is a programme developed for a specific study object. There are two types of educational programmes: programmed teaching and open computerized programme. The programmed teaching method refers to planned actions which stimulate student work. In the open computerized environment, a task is set for a student and several ways to a correct answer are provided. Education games, as a study measure, are favoured by students because tasks and tools are provided in a form of game. The





educational games are fun and at the same time increase the student's knowledge. Virtual learning environment is designed to provide all study course material (lessons, tasks), develop social network of the students, provide opportunities to communicate with a teacher, present fulfilled tasks and receive evaluation. Online web pages for learning are the most easily accessible interactive learning tools. On those web pages, students and teachers can find various information, theoretical knowledge and tests which are useful for their learning process. During the lessons such web pages can be accessed by using interactive whiteboard. In summary, it can be stated that in the modern world of knowledge and information, with the transition from industrial to information society, knowledge and competence are granted the greatest attention. Due to the changes in social, technical, educational and other environment, information, knowledge and skills quickly become outdated in modern society; therefore, the need for lifelong learning and continuous development of new skills arises. It becomes more and more clear that in this maelstrom of changes the education change is also inevitable and covers transition from teaching to learning concept. Application of innovative learning ways and methods based on the wide IT use which allows expanding education beyond the formal school borders, individualizing, making it more accessible and flexible becomes highly significant.

REFERENCES:

1. Čiužas, R. Contemporary teacher's competences in the context of educational changes // Spring University. Changing education in a changing society, 2011, Vol. 1, P. 40-49. Klaipėda: Klaipėda University Press. ISSN 1822-2196.
2. Denisov, V. Agricultural Specialist in Information Society. The Role of Mathematical Disciplines in Higher Agricultural Education. Proceedings of the 25–26 September Conference. Kaunas: Akademija, 1998, P. 10–16.
3. Dyson, E., Gilder, G., Keyworth, G., Toffler, A. Cyberspace and the American Dream: A Magna Carta for the Knowledge Age. In: Future Insight 1.2. The Progress & Freedom Foundation, 1994.
4. Drucker, P. F. Postcapitalist Society. New York: HarperCollins Publishers, 1993.
5. Jucevičienė, P. Besimokantis miestas: monografija. Kaunas: Technologija, 2007.

