IMPROVING INFORMATION SECURITY IN THE ALL-EUROPEAN SYSTEM OF SCIENCE AND EDUCATION

Nikishyna Anzhela Volodymyrivna,

Mishyna Olga Mykolaivna

Lecturers at Simon Kuznets Kharkiv

National University of Economics,

Kharkiv, Ukraine

angel_nikishina@yahoo.com

magistratura24@ukr.net

Introduction. The information society, which is based on information technologies, is constantly developing. The number of the active Internet users is growing and IT technologies are getting into every sphere of our life. The information flow has become more intensive, the greater part of social relations has got more virtual and countries have started to depend entirely on information system. That is why there appear more risks connected with the threats to information security and it should be considered on the global, regional and national levels.

Aim. In the modern literature some areas of the information environment have been already discussed but not enough attention has been given to educational and scientific fields. Under such conditions the research on the European approach to information security in educational and scientific spheres stays actual. That is why the aim of this work lies in looking for the ways as to improving information security in the All-European system of education and science.

Materials and methods. Studying the state of the All-European system of education and science has shown that at the modern stage special research on this matter has not been conducted very often. The work is based on the areas of the activity of the European Union which was considered in the research conducted by

O.Y. Zaporozhets, V.V.Kabernik, O.A.Timofeeva, A.Y.Minin. Among the foreign authors D. R. Garrison, H. Kanuka, K. Maennel, J. Collier, A. Martin can be mentioned. The official sites of the European Union and the Agency of the European Union on the issues of the network and information security have been also studied. Such scientific methods as analysis, synthesis and description were used while conducting the research.

Results and discussion. For the educational environment the problem of information security needs to be looked at in a broader sense. Foreign and national experience makes it possible to distinguish threats to the information security of scientific and educational establishments: unauthorized access to the database, filtration of the unwanted information, problems in dealing with social networking sites, lack of cyber-specialists and experts.

Digitalization is giving an opportunity to perform all the necessary transformations in the educational and scientific system of the European Union. Nowadays there is a broad selection of technologies that can be used to improve the academic discourse. Their aim is to manage the cyber security system, monitor cyber space events, find threats and react to suspicious situations and incidents. The European society and scientific establishments should join the system of information security and implement measures to improve media awareness, for instance, through training for the EU citizens.

Creating a safe informational-technological environment is in the way of possible cyber-attacks on the educational establishments that can lead to failure in the work of the automatic systems and further damage to the information security of the All-European scientific-educational system.

Traditional universities tend to involve more students in the scientific discourse while the universities of the applied science deal with real competences and close cooperation with information sphere. Thus, universities of the applied science can be considered as a bridge between academic education and professional preparation.

European society depends a lot on the IT systems, constantly using them, which leads to the imperfections in the information sphere. The EU sees the necessity of investing into technologies but it should be done only when there are enough experts. Their number is not sufficient not only in the IT sphere but also in other positions: lawyers, administrative personnel, medical workers, designers, managers of the upper level, etc.

In the EU the demand for cyber specialists and experts is higher than their existing number. This disadvantage is removed by a greater number of accredited proposals in educational establishments. The All-European system of education and science should adapt to solving long-term challenges, reacting to the current and future needs of the informational sphere. There is a necessity to create an innovative educational-methodological base, influencing the effectiveness of the development of information literacy.

Conclusions. Therefore, within the framework of the European Union, information security is considered as a state of information technology that ensures sufficient protection of information and an appropriate level of resistance to external negative challenges and threats. The priority tasks of the policy of the EU member states in the field of information security are the creation of such technical means that will contribute to the protection of IT technologies, as well as ensure a high level of awareness of the European society regarding information culture. It is in this context the European approach to cyber security in the scientific and educational spheres is considered. The main mechanisms for improving information security in the All-European system of science and education are campaigns to increase information knowledge and the level of media literacy, development of innovative educational and methodological bases that have an impact on the effectiveness of the development of information culture, etc. However, threats to information security facing scientific institutions still exist.

In order to significantly improve the existing state of the information security system, the European community needs to expand educational opportunities at all levels, increase the number of qualified educators, create synergy between educational processes and learning opportunities even at the workplace; provide lifelong learning of at least the basics of cybersecurity.

References:

1. Каберник В.В., Тимофєєва О.А. Забезпечення безпеки освітньої середи на прикладах США, країн Європи та Росії. Вісник МДІМВ. Сер. Міжнародні відносини. 2015. Вип. 43. С. 119-129.

2. Digital Education Action Plan. Cybersecurity in Education. An official website of the European Union: веб-сайт. URL:

https://ec.europa.eu/education/education-in-the-eu/european-education-area/digital-education-action-plan-action-7-cybersecurity-in-education_en (дата звернення: 08.04.2020).

3. Kaie Maennel. Improving and Measuring Learning Effectiveness at Cyber Defence Exercises: Master's Thesis of Computer Science (30 ECTS) / University of Tartu. Tartu, 2017. 95 p.

4. D. Randy Garrison, Heather Kanuka. Blended learning: Uncovering its transformative potential inhigher education. Internet and Higher Education. 2004. Vol. 7, № 2, P. 95–105. URL:

https://www.academia.edu/1267313/Blended_learning_Uncovering_its_transformative_potential_in_higher_education (дата звернення: 09.04.2020).