

Protection of Confidential Information in Educational Information Environments

JAROVA Ann 1, *Email: ajarova@hse.ru

ELIN Vladimir 1, *Email: velin@hse.ru

*1. School of Business – Informatics, State University - Higher School of Economics
National Research University, Kirpichnaya Street, 33. 105187. Moscow, Russia*

Abstract: The article discusses the possibility of providing students with confidential information for e-learning. We have examined the legal regulation of the regime of trade secrets. There were shown the technical methods of protection and accountability for violations. The paper concluded that the need to adopt a number of legal norms, which specify the procedure for the use of confidential information in e-learning environment.

Keywords: Electronic document, E-learning, Confidential information, The principle of free flow of information, Commercial secrets, Know how.

Introduction

Considerable amount of information has being sent to students in the form of e-document in order the implementation of educational activities with the use of electronic educational environments. It is not only educational materials but also the author's educational programs, textbooks and teaching materials. Personal data of employees of institutions and other confidential information (trade secrets) are converted to electronic form and must be transferred. The uncontrolled storage and use of this information could cause serious material and moral damages, copyright infringement and other illegal consequences. The law defines the responsibility for the illegal duplication, distortion or illegal use of confidential information.

It should be borne in mind that the Russian Federation is constitutionally enshrined freedom of information principle. The essence of the principle lies in the fact that access to information may be limited only on the basis of the federal law. In general, the Federation of Russia legally defines 70 categories of information with restricted access (secrets).

Some Russian scientists wrote on the need to protect confidential information in the exercise of electronic educational activities (Baranov, 2009).

The security policy is developed taking into account national laws relating to information security management, thus,

- protects personal information contained in the data that are part of their information institutions;

- it defines reasonable and acceptable practice in the use and preservation of information resources of the school;

- establishes liability for non-compliance or incorrect compliance in the field of information security.

Implementation of security policy agencies should be divided into two stages

1. Protection of trade secrets;
2. Using the know-how in practice.

These parameters are the basis for the information security program and to provide guidance offices a real opportunity to implement policies, standards, methods and procedures necessary to implement a successful information security programs.

This article identified the legal basis and practical application of specific procedures for the protection of trade secrets in e-learning environments.

The legal status of confidential information in e-learning environments

This area of the relations regulated by the following official documents. "Strategy for Information Society Development in the Russian Federation" (Strategy for Information Society Development), especially brings to the fore the problem of improving the quality of training and the creation of a continuous training system for civil servants in the field of information and telecommunication technologies. It defines main directions of development of science, technology, equipment and training of qualified personnel in the field of information and telecommunication technologies. Law "On education in the Russian Federation" defines e-Learning term as follows: "... the creation of educational activities on the use of the information contained in the databases, information technology, and information and telecommunications networks to provide educational programs, as well as for the interaction of students and faculty members" (Art. 16 of the Federal law" On education in the Russian Federation)

The procedure for use in educational institutions e-learning and distance learning technologies for educational programs is determined by the regulatory - legal acts of the Ministry of Education and Science of the Russian Federation (Ministry of Education 2014A , B).

However, Russia has restrictions on the implementation of e-learning. For example, the Ministry of Education and Science approved the list of

professions and specialties of secondary vocational education, which can not be realized only through e-learning (Ministry of Education 2014A , B).

One of the mandatory requirements of the legislation in the implementation of e-learning is the responsibility of educational institutions to ensure the protection of information constituting a secret protected by law. In accordance with the Russian Federation on access to information, this category is divided, such as public information and limited access to information, which is limited by federal law.

Grounds for restriction of access to information are: the protection of the constitutional order, morality, health, rights and lawful interests of others, national defense and security of the state, but only if there is a requirement of the law on this issue.

There are different legal classification of information with limited access, but legally we can provide: a state secret; confidential Information; other Information limited.

Confidential information should be divided into: personal data (includes sensitive information about the facts, events and circumstances of citizen privacy, enabling the identification of his personality); information constituting secrecy of the investigation and legal proceedings, official secret, professional secret (eg, medical, notary, attorney secret, secrecy of correspondence, telephone conversations, postal, telegraph and other communications, and so on); Trade secret; a secret invention, utility model or industrial design (Article 9 of the Russian Federal law "On information, information technologies and protection of information").

But existing approaches allow us to determine the specific categories of information with limited access, which are subject to legal protection. We can talk about the equivalence of the terms "mystery" and "Information with restricted access" (Kuzmin, 2000).

Protection of trade secrets in e-learning environments

Continuous development of technology is accompanied by a variety of processes that can be improved, optimized, supplemented in order to achieve effective and efficient results (Sitishko 2009). It is acceptable for the classification of information, related to processes such as a trade secret. It is

believed that the trade secret information can optimize processes, save money and become a valuable commodity.

Trade secrets can include any data (industrial, technical, economic, institutional), including the results of intellectual activities in science and technology, as well as information on how to carry out professional activities (Federal Law of the Federation of Russia "On Commercial Secrets"). The ability to classify data as a trade secret depends on the actual or potential commercial value of the information by virtue of its being unknown to third parties, to which the third parties do not have free access to the legal basis and in respect of which the holder of such information is entered commercial secret regime.

This mode protects information resources on the basis of the risk of accidental or unauthorized disclosure, modification or destruction, and to ensure the confidentiality, integrity and availability of data (Zharova, A., Elin, V., Dem'yanets, M. 2014).

The importance of trade secrets can be characterized by its protection. The protection of trade secrets is reflected in the rules of the Labor Code of the Russian Federation. The ban on the disclosure of trade secrets is a condition of employment.

Violation of the law on trade secrets also entails criminal liability (Article 183 of the Criminal Code.). Fouls: collection of information constituting commercial secret, by abduction of documents, bribery or threats, unlawful disclosure or use of a trade secret information without the owner's consent.

Trade secret includes five mandatory steps:

1. Determination of the list of information constituting a commercial secret;
2. Limit employee access to information;
3. Personnel accounting;
4. Mode of use of trade secrets by employees and contractors;
5. Stamping on the documents stamped "Commercial secret."

The owners of information, which educational institutions can also use the tools and methods of protection, such as the organizational, technical and specific.

Organizational methods include the following: work with the personnel, control of the protection regime of documents, the determination of the form

and content of documents, classification of documents and stamping "commercial secret" on documents (Baranova and Babash 2015).

Technical measures include: installation of signaling and control over its work, the use of special locks and other devices, the use of devices for the destruction of documents, safes, as well as special containers for storage of documents.

Specific measures include: the use of the copy-protection documents, hidden recording devices, unauthorized access to documents, industrial espionage, and conduct an official investigation into the case of loss of documents.

These measures are used in the Kazan State University (<http://www.pandia.ru/text/77/31/316.php>) and Belgorod State Technological University (<http://www.docme.ru/doc/915036/> HEAD = pobj polozhenie-of-sluzhebnoj-I-kommercheskoj-Tajne-v-Vuze). The next step is the development of information security systems, based on the use of the experience of the leading universities in the structure of which there are information security departments. For example, management of information security in University of Texas at Austin has developed and implemented the structure of the "information resources" and the "Privacy Policy", "acceptable use Policy" (<https://security.utexas.edu/>).

The use of trade secrets in e-learning environments

In Russia, the rules for the use of trade secrets are defined by Part 4 of the Civil Code of the Russian Federation, which regulates relations in the sphere of intellectual property. Since the definition of "know-how" coincides with the essence of commercial secrets, then with respect to such information, institutions should introduce a special legal regime.

Just know-how makes it possible to ensure that trade secrets to third parties.

At the same time, know-how has all intellectual property characteristics and has a number of specific features. The monopoly of a certain person for a certain amount of knowledge is at the center of know-how. The legal knowledge monopoly regulated by the know-how. Differences exist between the know-how and other objects intellectual property, which are: universal, legally defined requirements, the possibility of patent protection, the possibility of registration of rights.

The bearer of know-how has the exclusive right to use it.

Exclusive rights to know-how lasts as long as the confidentiality of information constituting a commercial secret content.

Since the loss of confidentiality of relevant information, the exclusive right of the know-how ceases all owners.

Conclusions

Russia has made the protection of property (exclusive) and moral rights, trade secret information of electronic educational environments.

In the future, we must take a number of regulations, clarifying the concept of "forgery" for commercial confidentiality in e-learning environments.

Civil liability protection of trade secrets in e-learning environments need to be further tightened .

Acknowledgments

The authors are grateful to the Russian Foundation for the Humanities (Russian humanitarian scientific Fund) for its help in the research project "Comparative legal research methods to maintain in the information security in the Russian Federation and the EU member states» (№ 16-03-00679).

References

Baranov A. (2009). Current practical legal aspects of information security. Information security problems. *Computer Systems*, 4, 51-55.

Baranova, E., and Babash, A. (2015). Information security and data protection. Moscow: INFRA-M, RIOR.

Federal Law of the Russian Federation "On Commercial Secrets" No 98-FZ dated July 29, 2004. The *legal information information and retrieval system* "Consultant Plus" Press. Retrieved from <http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=LAW;n=160,225> .

Federal Law of the Russian Federation "On Information, Information Technologies and Protection of Information" No 149-FZ, dated 27 June 2006. The *legal information information and retrieval system* "Consultant

Plus" Press. Source: <http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=LAW;n=178751> .

Federal Law of the Russian Federation "On Education in the Russian Federation" № 273-FZ of December 29, 2012 <http://www.pravo.gov.ru> .

Kuzmin, S. (2000). The mystery of the criminal law. Author. Diss ... cand. Jurid. Sciences. Stavropol: Stavropol State University.

Law of the Russian Federation . " On State Secrets" No 5485-1 of 21 July 1993 *Legal Information and retrieval system* "Consultant Plus" Press. Source <http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=LAW;n=176315> .

The order of the Ministry of Education and Science of the Russian Federation (2014A). On approval of the use of organizations engaged in educational activity, e-learning, distance learning technologies in the educational programs 9 January 2014 2. *The number of legal information and retrieval system* "Consultant Plus" Press. Retrieved from <http://base.consultant.ru/cons> .

The order of the Ministry of Education and Science of the Russian Federation (2014b). On approving the list of professions and specialties of secondary vocational education, the implementation of educational programs, which do not allow you to use only e-learning, distance learning technology January 20, 2014 No 22. *Legal Information and search system* "Consultant Plus" Press. Retrieved from <http://base.consultant.ru/cons> .

Presidential Decree (1997). Approval of the list confidential number 188 of March 6, 1997 *The legal information and retrieval system* "Consultant Plus" Press. Retrieved from [http://base.consultant.ru/cons/cgi/online. ? cgi req = doc; base = LAW; n = 182,734](http://base.consultant.ru/cons/cgi/online.?cgi%20req%3Ddoc;base%3DLAW;n%3D182%2C734) .

Sitishko, D. (2009). The know-how secret and commercial secret: some features to use trade secrets. *The law and policy* , 4 .

Strategy for Information Society Development in the Russian Federation. *The legal information and retrieval system* "Garant" Press. Source: <http://english.garant.ru/about/>.

<http://www.pandia.ru/text/77/31/316.php> .

<http://www.docme.ru/doc/915036/polozhenie-o-sluzhebnoj-i-kommercheskoj-tajne-v-vuze> .

<https://security.utexas.edu/> .

Zharova, A., Elin , V., Dem'yanets, M . (2014) . Entrepreneurial activity on the Internet: Monograph. M. , (p. 108)



<http://www.springer.com/978-3-319-33863-7>

Strategic Innovative Marketing

4th IC-SIM, Mykonos, Greece 2015

Kavoura, A.; Sakas, D.P.; Tomaras, P. (Eds.)

2017, XXXVI, 764 p. 100 illus., 60 illus. in color.,

Hardcover

ISBN: 978-3-319-33863-7