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Information security as a requirement for schoolchildren well-being

Abstract

The author identifies the problem of information security in education as a special area that requires proper attention from politicians, scientists and teachers. Information security should be considered as one of the most important factors for preserving and strengthening the health of the nation. The thesis about the young generation as the future of the country is recognized. The future of the people and the country depends on ideas, values and standards of morality they got through information. School age is the most suitable for educational process and the most psychologically unprotected from any kind of information that children can find in various sources. Therefore, educational system should be responsible for the issue of information security.

Keywords: information security, information, individual, Internet, mass media, health, schoolchild, information protection

The problem of ensuring information security of a person is becoming more and more urgent. Security is the human value and its importance is increasing, because only by providing security all other values can be realized. As social relations become more complex, removing just external threats is not enough. Active lifestyle, communication and received information create unsafe situations for a person as well. Psychological security is the individual protection from destructive influences that can destroy the interests, ideals and needs associated with normal existence and development. Informational psychological security is psyche protection from the action of a variety of information that prevents and

hinders personal structures formation, functioning and development, as well as system of human behaviour and life in modern society[1].

To date, a significant number of definitions have been created. They reveal the essence of the concept of security. Some focus on the individual and personal aspect of this phenomenon, where security is understood as „the protection of natural-physiological, socio-economic, ideal-spiritual and situational needs for resources, technologies, information and moral values which are necessary for the population`s life and development„[2].

Personal security covers many aspects that are interrelated and interdependent, e.g. physical security. Personal security is considered the socio-psychological and individual-psychological term. The socio-psychological aspect of personal security consists of various socio-psychological phenomena, social differences and deformations of interpersonal relations[3].

Individual and personal aspects of security include the preservation of mental and social health, building safe relationships, resisting the pressure and other destructive influences. Every person should take a responsible attitude to his safety. They should model safe situations, exercise self-control of their behaviour, and preserve their motives for saving themselves, excluding external temptations[4].

The solution to the security problem can be achieved in two ways: how a person is able to protect himself from external threats or choose other ways of activity and behavior without risking his life or health. A person should pay attention to safe behaviour. The process of training safe behaviour occurs throughout life and it is most intense in adolescence.

Psychological security of the individual consists of two aspects: protection from internal psychological discomfort and external psychological discomfort. The main thing is the presence of a basic need for security. However, the child does not always feel danger or threat to life searching the Internet. There is no need to protect, since the child does not feel psychological discomfort. On the

[1] О внесении изменений и дополнений в некоторые законы Республики Беларусь [Электронный ресурс] : закон Респ. Беларусь, 11 мая 2016 г., № 362-З // Нац. правовой Интернет-портал Респ. Беларусь. - Режим доступа: http://pravo.by/main.aspx?guid=12551&p0=H11600362&p1=1&p5=0.- [Дата доступа: 08.08.2016].

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contrary he communicates, makes new acquaintances, gets to different sites he is interested to be. Every schoolchild needs to know the tricks of cybercriminals and the dangers of getting on various sites – everything that can threaten their life and health. Ideas about your own safety should be obtained from early childhood.

From birth a person begins to collect and handle with incoming information from the world with the help of music, painting, architecture, film, radio, television, theater, and other sources. The child divides information into pleasant and unpleasant. But the more he gets, the more improved this division process becomes and information can be positive and negative, useful and useless, important and unimportant. Information shows all aspects of society life, creating a special world in which a person lives. With the help of communication media, it is possible to acquire knowledge and get education in various realms of science.

In recent decades the means of communication have changed significantly due to the spread of satellite-link communications, cable radio and television, as well as cassettes, disks, and printers. But the most widespread and powerful influence on society is exerted by audiovisual media such as radio and television, the Internet and advertising.

The World Wide Web has a significant benefit over other mass media. There are all the positive qualities of earlier information resources: periodicity, verbality, multidimensionality and diversification. The advantages of the Internet can be widely used in the education system. It may change the image of educational institutions, schools in particular. *In this regard, the use of the Internet in education is very prospective.*

Over the past decades information channels and thematic priorities have been transformed. The proportion of entertaining content is growing. Pupils want to receive more diverse and sophisticated audiovisual information. Educational information is much less interesting for the younger generation. *Mass media and information channels pose a threat to both the spiritual and physical health of students.*

The law of the Republic of Belarus on Children's Rights was complemented by Chapter 4 „Protection of children from information that harms their health and development". According to the document, harm to children's health and development can be caused by the information which:

- causes the desire to drink alcohol and use narcotic and psychotropic substances;
- encourages the committing a crime, praises the crime, or idealizes the criminals;

- demonstrates bullying of one person or group of people;
- promotes or praises violence;
- encourages bodily harm or committing suicide;
- encourages habits that contradict the formation of a healthy lifestyle;
- contains strong language;
- discredits the institution of the family and marital and family relations;
- is intimidating[5].

The law prohibits the distribution of information products in the form of mass media, printed publications, audiovisual works, phonograms, games, such as games with an electronic display, computer games and programs on any type of media distributed through events without assigning an age category mark. Parents are also asked to „ensure measures to control „harmful" information from the Internet via entering into a contract for access restriction services with providers, or through the use of hardware and software"[6].

Information security of schoolchildren is primarily related to the quality of information they get. There is information that causes fear, frustration, emptiness, hostility, insults, theft, and actions to the harm to health. Watching aggressive movies leads to corresponding behaviour. Cartoons with their speed and bright stories attract children`s attention and generate an unwillingness to communicate with their peers. Movie characters in some way replace the family. Information provokes students` actions: buying certain things because of advertising, using certain items because characters in movies and books use them. On the contrary information can give a signal to changing the type of activity[7].

One of the most urgent issues nowadays is the preservation of the national culture. Modern Belarusian reality demonstrates how effectively the Western values are imposed with the help of information. These values lead to the rejection of the values of our own nation and to the distancing of society from its historically positive experience. The rejection of national culture, traditions, and language threatens the sovereignty of the country. That is why one of the main

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[5] О внесении изменений и дополнений в некоторые законы Республики Беларусь [Электронный ресурс] : закон Респ. Беларусь, 11 мая 2016 г., № 362-З // Нац. правовой Интернет-портал Респ. Беларусь. - Режим доступа: http://pravo.by/main.aspx?guid=12551&p0=H11600362&p1=1&p5=0.- [Дата доступа: 08.08.2016].

[6] О внесении изменений и дополнений в некоторые законы Республики Беларусь [Электронный ресурс] : закон Респ. Беларусь, 11 мая 2016 г., № 362-З // Нац. правовой Интернет-портал Респ. Беларусь. - Режим доступа: http://pravo.by/main.aspx?guid=12551&p0=H11600362&p1=1&p5=0.- [Дата доступа: 08.08.2016].

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aims of Belarus is to include *the concept of information protection of the younger generation from information coming from various sources in order to preserve the national identity of young Belarussians.*

During children's socialization, it is necessary to take into account *the educational influence of information on the individual, which can have both positive and negative results.* Such types of informational influence on the child as persuasion and suggestion are quite acceptable. *Persuasion* is a „soft" influence on the student's personality, its aim is to correct their views in order to influence their behaviour. It is easier to persuade those students who have a vivid imagination, orientation to others or low self-esteem. *Suggestion* implies the transfer of information with the implementation of the ideas contained in it without any critical evaluation and logical refining of the main idea. The emotional reaction of the student to the slightest attempt to condemn the truth indicates that suggestion works, not deliberate choice. With the constant use of persuasion and suggestion, and without self-control by the child, these methods can lead to dependence formation (unfavourable state).

The mass media can persuade and influence schoolchildren`s opinions, both in society and individually. When information is distorted, it creates *a basis for manipulating young people`s minds and behaviour*. Covert manipulations are considered to be an implicit incitement of a schoolchild to experience specific condition, necessary for a manipulator`s decision, or to perform actions. The child can barely control this, which makes this phenomenon dangerous.

Advertising plays a special role in manipulation. We know that education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits, so the influence of mass communication in general and advertising in particular is obvious. At the same time, advertising is almost indifferent to the consequences of persuasion, such as narrowing the circle of interests, imposing social passivity, and reducing aesthetic and ethical criteria. As a result, children become advertising-dependent, callous, and unemotional.

Advertising sets certain guidelines: moral, spiritual, social, economic. Some of them already exist in society and act as dominant models of public opinion[8]. Moreover, information from advertising may contain rudeness, cruelty, and immoral behavior. For example, tobacco or beer advertising has an impact on young people. The attitude of the individual to himself and the world around changes. It is difficult to become a person who believes in love and family if such information is presented.

[8] Масленченко, С.В. СМИ как фактор трансформации ценностных ориентиров / С.В. Масленченко, Т.В. Рязанцева // Управление защитой информации. – 2006. – №4. – С. 475-482.

Many girls and boys try to be like celebrities on their favorite TV shows. The creative potential of a young person disappears: why should he think, search, make a decision for himself, when magazines and videos show how to relax, study, what to wear? But *independence and uniqueness are the main keys to comprehensive knowledge, moral rectitude, physical and mental health.*

Is it possible to be yourself, to make your own decisions, to keep your own opinions when you are influenced by so many ads, movies, magazines, newspapers? To cope with this on their own is difficult for students without social experience, they have a high mobility and variability of views on current events. That is why young people need to learn to filter the information they receive. And parents and teachers can help them.

How to protect the mind of a person, especially a young one, from all kinds of information? It is necessary to take into account the connection between psychological security and its mechanisms. Negation, suppression, repression, projection, identification, rationalization, and substitution are generally recognized.

Negation is the desire to avoid new information that is incompatible with the existing ideas about yourself. Undesirable information is not allowed, it is lost and cannot be restored later. During *suppression*, information is forgotten, blocked when it is transferred from perception to memory or when it is output from memory to consciousness. *Repression* is associated with forgetting the true, but unacceptable motive for a person's action. It is not the event itself that is forgotten, but its cause. *Projection* is a peculiar mechanism associated with the unconscious transfer of someone's own feelings, desires, and aspirations to another person. *Identification* is a kind of projection associated with the unconscious identification of oneself with another person, the transfer of feelings and qualities that are desirable but inaccessible. *Rationalization* is a defense mechanism associated with the awareness and use of information in thinking that makes one's own behavior look well controlled and does not contradict to objective circumstances. *Substitution* is based on transferring a reaction from an inaccessible object to an accessible object, or replacing an unacceptable action with an acceptable one[9].

If we are talking about the younger generation, the mechanisms of psychological protection are represented by special techniques that suppress and prevent the young person from entering the consciousness of the information that contradicts his ideas. Reception of displacement of the information that causes anxiety and tension. For example, „I want to smoke, but I don't do it». Desires, facts are repressed and only anxiety remains. But if a child wants to become the

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most fashionable among his peers, and he does not have the opportunity to do it, then he will deny the need of fashion. The technique of getting rid of obsessive desires by assigning them to other people. An evil and heartless student does not think he is that person, but attributes these qualities to others. The technique of reorienting your feelings and desires to others. A student cannot become a leader in the class, subordinate his peers, and have no authority. But he draws the crowd of younger students, commands and intimidates them. The technique of redistributing energy from a hopeless situation to a resolvable one. If a student fails to learn well, they attract attention by smoking cigarettes or drinking alcohol. The method of rational justification of an action, when a schoolchild who has committed an irresponsible act to preserve self-respect, refers to the circumstances that forced him to do this.

The balance of information and physical culture is currently one of the most important factors of schoolchildren's health. An increase in the load on the senses, thinking should cause an increase in the load on the muscles and bones, what unfortunately does not always happen. As an example, let's take the most popular device among children called computer.

The World Health Organization has concluded that frequent and prolonged work at the computer has negative consequences for both physical and mental health. This is expressed in prompt fatigability, changes in blood pressure, increased sweating, eye stress, headaches, fainting. Being online for a long time causes symptoms of losing a sense of real time and space. There are signs of inappropriate behavior after working at the computer: throwing equipment, anger, irritation. The reasons for this are software failures, system freezes, and data loss[10].

A computer is an unlimited access to any information. When a child is sitting at a computer, he moves less, and his creative abilities decrease. Modern methods of getting information have a negative effect on health. Abnormal changes in the mental state affect the personal qualities, which can trigger the commission of a crime. These processes are compounded by the fact that most school children spend time without any parental control. Due to a lack of knowledge about the Internet and computers, parents do not have a complete understanding of their children's online activities.

As a result, we can mention *the adverse effect of the computer on the health of schoolchildren*. In order not to turn a schoolchild into an appendage of computer or television technology, a clear position on the part of the country and

[10] Концепция национальной безопасности Республики Беларусь // Министерство обороны Республики Беларусь [Электронный ресурс]. – 2002. – Режим доступа : http://www.mod.mil.by/koncep.html. – [Дата доступа : 10.05.2009].

the family is necessary both to control over the media and communications, and in relation to the optimal use of their potential for raising a full-fledged generation.

The quality of information perceived by students is essential, and the emphasis is on maintaining the necessary level of security for students working with information. Therefore, the idea of security is embedded in the content of education, as well as in the organization of the educational process. With this approach to the organization of the process, adults involved in the education of schoolchildren contribute to the formation of competence in information security.

Parents and teachers are encouraged *to comply with the conditions aimed at working with information in education of the younger generation.* Conditions represent pedagogical actions of teachers and parents in relation to students:

1. Working with secure information:
- to allow children to visit sites that are verified by adults;
- to monitor the sites visited on the Internet;
- to teach how to ignore messages from strangers.

2. Teaching children to take information critically;
- to form their own opinions on various events set out on the Internet
- use their judgment but at the same time learn to listen to the point of others` views;
- think critically about ads in social networking sites;
- be careful when buying something online, it may not be useful or safe.

3. *Limited use of the Internet based on what is available for children and their age:*
- to differentiate the use of information resources between adults and children;
- to talk about harmful information for children's health;
- do not allow prohibited information to be dominant in children's minds and behavior;
- in the process of education, do not refer to students from social networks, this may be a reason to dive into social networks;

4. Follow hygiene rules when working with a computer:
- limit the computer time;
- to maintain a positive verbal environment in the process of communication;
- Working with information should take into account children's age, abilities, and technical skills;

It should be taken into account that only educational activities can form students' competence of information security. Experience is formed mainly in everyday life situations that demand solution. Therefore, extracurricular activities are a good means of educating students. The combination of educational and extracurricular activities that have same goals can give good results.

Several conclusions can be drawn. Approaches to defining various concepts are interesting to pedagogics as a science. A schoolchild`s safety is that the student could protect himself from information that threatens his health and development, be able to regulate his behavior, and have mechanisms of protective behavior in a problematic situation.

Developing a cyber security strategy, it is necessary to take into account the level of society development, the degree of influence of information on people's minds, behavior, and point of view. It is necessary to consider questions about the accessibility and permissiveness of the media to children. Socio-pedagogical aspects of information security are relevant and in need of attention from politicians, scientists and teachers to create a favorable information space in society and education of the younger generation.

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Bezpieczeństwo informacji jako warunek dobrego samopoczucia uczniów

Streszczenie

Autorka identyfikuje problem bezpieczeństwa informacji w edukacji jako szczególny obszar, który wymaga odpowiedniej uwagi polityków, naukowców i nauczycieli. Bezpieczeństwo informacji należy uznać za jeden z najważniejszych czynników zachowania i wzmocnienia zdrowia narodu. Uznano za słuszną tezę o młodym pokoleniu jako przyszłości kraju. Przyszłość ludzi i kraju zależy od idei, wartości i standardów moralnych, które zdobyli oni dzięki informacjom. Wiek szkolny jest najbardziej odpowiedni dla procesu wychowawczego i najbardziej niechroniony psychicznie przed wszelkiego rodzaju informacjami, jakie dzieci mogą znaleźć w różnych źródłach, dlatego też system edukacji powinien odpowiadać za kwestie bezpieczeństwa informacji.

Słowa kluczowe: bezpieczeństwo informacji, informacja, osoba, Internet, środki masowego przekazu, zdrowie, dziecko w wieku szkolnym, ochrona informacji