RESEARCH ARTICLE

COMPUTER VIRUS AS A TORT OBLIGATION.

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**Abstract**

This article is devoted to the definition of a computer virus as a source of increased danger. The article covers the difference of a computer virus from other objects of civil rights and gives a detailed analysis of its characteristics as: 1) an intangible object exempt from civil turnover; 2) transaction, which content does not comply with the law, and is also made for a purpose deliberately contradict to the principles of public order or morality; 3) a source of increased danger; 4) force majeure; 5) a basis of tort liability; 6) ratio of the legal regime of computer virus and software.

**Manuscript Info**

**Manuscript History:**
Received: 25 April 2016  
Final Accepted: 19 May 2016  
Published Online: June 2016

**Key words:**
computer program, computer virus, software, legal regime, intangible object, transaction, source of increased danger, force majeure, delict.

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Rapid development of science and technology has led to the introduction of new objects of civil rights, used for many purposes in everyday life. Computers, mobile devices (laptops, gadgets, tablets, smartphones, etc.) have become an integral part of our lives.

With the development of software products in the Republic of Uzbekistan (hereinafter software products and computer programs have identical meaning), special attention is paid to the full support and protection of rights of their copyright owners, manufacturers of these products, their authors. The legal framework has been created in this field. The potential of personnel in this area provides ample opportunities for further development of this field. According to the President of the Republic of Uzbekistan “…a new young generation is being formed that thinks independently, which meets modern requirements and is capable of taking responsibility for tomorrow, the fate of our homeland” [1].

As a result of ongoing systemic reform, the standard of living has changed, comfortable living conditions have been created. This allows citizens not only use household items, new science and technological devices in everyday life, but also carry out scientific research, mutual information exchange, storage, processing and dissemination of information. This process requires a software environment that of the computer or a variety of mobile devices, which makes it possible to achieve certain goals.

Creation of all kinds of software products requires certain human creative skills, knowledge and practices. In such cases, the creative process can be aimed at different objectives such as solving scientific problems in a certain field, development, calculations, storage, data processing, etc. A clear example is the annual creation of several thousand software products and their introduction into circulation. Unfortunately, sometimes creative process leads to the violation of rights and legitimate interests of other people, damaging the property and personal non-property rights. In particular, creation of computer viruses is a clear example. Therefore, we should focus on the definition of a computer virus, determination of its civil law regime and reality of this phenomenon.
Thus, a question of what a computer virus is arises. What legal regime should be applied to it? Not going into its techno-economic, informational characteristics, we shall define a computer virus as a kind of computer program that causes and may harm certain individuals, is capable of copying and delving into other software codes, system memory, boot sectors and can transfer its copy by various communication channels. Usually the purpose of the virus is causing damage to the functioning of complex hardware, deleting files, destroying the datastructure, obtaining user data, personal data and specific codes, control of user activity leading to destroying the complex of computer devices.

Development of the internet and communication means have promoted development of computer viruses. Today, the registry data of computer viruses is constantly growing. Analyses show that the harm of computer viruses made to various government bodies, organizations and citizens is annually measured in several billion dollars.

Mathias Klang studied a computer virus from different angles, including as an alternative to a computer program, as a means of giving advice, a way of expression, an aid, as well as a part of a virtual life, artificial life [8, S.162-183]. Although there are certain similarities with those concepts, the author thinks that it may be a form of free expression, as an alternative to other programs, etc. But the content and the essence of a computer virus have negative effects on the state and emergence of a crime.

Thus, another question arises. As a rule, the objects of civil rights are under the legal regime. But what legal regime should be applied to software products as objects of civil law? A legal regime has a broad definition, the term is derived from the Latin word «regimen», which means management and system of rules, measures to achieve certain results.

S.Hanashi studying issues of civil law regimes, defines a civil law regime as a special order of regulation, based on the combined legal means dispositive (including legal methods of regulating) public relations substantially and moral nature [2, P.7]. In our opinion, the author sees only it from the subject and method of science points of view. The civil regime should be considered for each individual object as it does not deny the existence of material and non-material objects. Its legal status should correspond to the objects prohibited, restricted or freely circulating in the civil circulation.

According to E.Suhanov, the civil law regime as an opportunity or impossibility to implement certain actions (transactions), involving a well-known legal (civil) result [3, S.295]. The author does not separately analyze issues of certain legal cases resulted in the creation of harmful objects. The legal regime should have certain characteristics.

Based on the above, we can say that a legal regime has the following characteristics:

- Definition in the legislation;
- Regulation of certain social relations and manifestation of the complex legal means;
- It is aimed at a certain legal regulation;
- The availability of liability when not performed in the regime of legislative requirements;
- The occurrence of certain entities for positive or negative states.

In his study, O.Okyulov mentions that there are serious problems regarding the definition of the legal regime of intellectual activity and its results [4, P.7]. The creative work should not act willfully exercise at its discretion in order to achieve illegal purposes. ... One should not abuse the freedom of creativity for creating immoral (not relevant to ethics) works, can not use the freedom of thought, statements in the media for purposes against the constitutional order, to seek, receive and disseminate information to discredit people and disclosure of personal secrets of others individuals [5, P.24].

According to N.Imomov, we should determine legal status and legal regulation of intellectual property, topographies of integrated circuits, inventions, poems or other works (translations, commentaries, etc.) created by artificial intelligence [6 S.32-34].

The opinion of the authors is of some importance, as there are a number of problems today that should be solved. A computer virus is a software product. Software developers, without knowing it, can create a software virus. If this activity is carried out for personal gain and to cause harm, the liability arises (article 278° of the Criminal Code of
We should note that a variety of objects, in particular, toxic, chemical, radioactive materials with hazardous properties, strains of microorganisms, viruses, bacteria and all kinds of diseases are stored by various organizations in a state that is not harmful to the environment and people. Although these objects are not in free circulation, they can be used for scientific, medical purposes, to create vaccinations and they are stored in special conditions. Regarding viruses, such rules should also be applied (quarantine restrictions, etc.).

The law has a principle of “primum non nocere”, that is, first and foremost - do no harm! This principle is used in various fields such as medicine. In this sense, developed software should not violate rights of other people and do no harm.

This is provided in Article 20 of the Constitution of the Republic of Uzbekistan, according to which the exercise of the rights and freedoms of the citizen should not violate the legal interests, rights and freedoms of other people, the country and society. According to the third part of Article 9 of the Civil Code of the Republic of Uzbekistan, the exercise of civil rights should not violate rights and lawful interests of other people.

Today, there are plenty of companies specializing in the development of software products. In particular, Kaspersky antivirus, E-set, Nod 32, Dr.Web and others keep a register of computer viruses for production and constant update of software products, improving the algorithm and methods of fighting computer viruses. The registry data of computer viruses is stored in a quarantine restricted mode and used only by anti-virus software developers. In our opinion, there should be a register of databases of computer viruses of a global scale and harmful properties of computer viruses should be limited. Our Republic has the potential to further improve and expand production of high-quality, competitive software in accordance with international standards.

We think that computer viruses are characterized by:
- Result of creative activity;
- Intangible objects;
- Focus on certain goals (usually to harm someone or something something);
- Prohibition of the development, distribution and attraction specific legal liability;
- Prohibition of its free circulation;
- Impossibility of determining, identifying its developer.

We should note that a simple kitchen knife is not prohibited for civilian purposes. It can be used as a home accessory and they are widely available. But there is also the possibility to use this thing for a criminal offense and causing injury to others. Therefore, the definition of the legal regime of computer viruses requires the legislator to have fine skills. A computer virus can be considered a creative activity, a means to free thinking as every software product is the result of creative activity. Software developers can express their views through creation of such objects, finding software bugs as a way to improve their knowledge in the field of programming. In this perspective, a developer of a computer virus can be considered the author of "others, contrary to the ethical rules of ideas." The history of humanity has plenty of such examples. We should not forget that no one is deprived of the right to freely do their art. Every idea, opinion has the right to exist.

Sh.Ruzinazarov studying civil security features says that the use of security measures can be implemented by the competent state bodies and officials [7, p.127]. However, he does not pay attention to the fact that security in the field of software development is mainly carried out by the private sector, various business entities through the production of computer (anti-virus) software. Therefore, it is recommended to implement security measures in the field of information and communication, the definition of the legal regime of computer viruses in the legislative acts.

One can use anything that in free public circulation, limited in circulation and forbidden to handle a variety of purposes, ie in the positive and in a negative manner. Similarly, it is possible to use computer viruses in some positive and creative ways. For example, one can use computer viruses to improve programming skills, identifying and preventing flaws in software products, opportunities for free creativity, free expression, checking special programming skills, identification of other malicious computer viruses, finding vulnerabilities of software products, their ability to work without errors, development of anti-virus programs and for other purposes. Thus, a computer virus is included in the range of objects prohibited for civilian purposes. In this sense, keeping in mind that a
computer virus is the result of creative activity, we can consider objective form of manifestation of ideas that are harmful to people, destructive thoughts and ideas. When it has an objective form, it takes the form of a computer virus. One can use a computer virus to prevent the destructive effects to counteract the virus. Data properties of a computer virus can be regarded as close to the object limited in the civil circulation.

**Based on the above, we can draw the following conclusions:**
1. A computer virus is an intangible object, derived from civil circulation. A computer virus is the result of creative activity, in some cases, it can be characterized by self-multiplication, update, self-destruction of the intangible object. Creating, distributing and introduction in the civil circulation is prohibited. At the sudden creation of a computer virus as a result of the creative process, technical or other errors, its creator should take measures to prevent harm to other people, he should restrict it, held in an enclosed space and prevent the introduction of a virus into circulation (information sector);

2. A computer virus, as a kind of computer program, is a bargain, which content does not comply with the legislation, as well as is deliberately contradict to the principles of public order or morality. A computer virus is also result of certain actions, creating rights and obligations (for example, it is possible to obtain certain property rights with the help of a computer virus), changing (for example, by a computer virus can change the state of property rights), stopping (for example, with the use of personal code, the ownership may be actually stopped). When creating a computer virus, an “action” is made and thus it has the same characteristics as the transaction;

3. Computer virus is a source of increased danger. In this case, we mean its quality of generating danger to others. Early computer virus is categorized by increased hazard. Thus, after its introduction into a computer system, it can get out of control of a person. This can lead to various sudden negative consequences, accidents with technological properties, violation of property rights, moral rights, to prevent, fail the normal activities of the organizations, honest cause harm to life and health of citizens. This puts a computer virus in the category of high-risk sources of force majeure;

4. A computer virus is a force major. Unlike other software, a computer virus can be used in various purposes such as selfish means of offense. It can also cause corresponding legal responsibility. If there is no anti-virus, a computer program that knows how to find and neutralize a computer virus, a force majeure may occur. A computer virus entering the computer's memory is not considered as the automatic appearance of legal responsibility of a specific person. Because a computer virus in the computer's memory can not depend on the will of the person;

5. Introduction of a computer virus into circulation is a basis of origin of tort liability. A computer virus, as a means and a base to do harm, meets all requirements and conditions of tort liability. A computer virus can cause material damage, damage to life and health of people. While a computer virus is a non-material object, but a special computer program, it has the same characteristics as other objects (such as chemical industry, vehicle, etc. which are a source of danger) and is manifested as a subject (an intangible object) which may cause certain harm;

6. A computer virus can used to prevent various types of offenses, stop the activity of websites that spread negativity and hatred among people, have harmful effects on humans. In this case, a computer virus will not be considered a “virus”, but a usual "computer program", which allows carrying out actions that are permitted by the law and can be used for lawful purposes;

7. The legal regime of the computer program should be determined not only in the field of public law (administrative law, criminal law), but also private law (civil law). It is this field that has the right to establish and answer the question whether it can be freely applied for civilian purposes or not.

Based on the above, the Article 1 of the Law of the Republic of Uzbekistan “On legal protection of programs for electronic computers and databases” should be supplemented with the following rule, which defines the concept of a computer virus:
“A computer virus is a set of data commands and instructions expressed in an objective form, intended to serve illegal interests, aimed at harmful effects in the computer interface (or a system of interconnected computers), prohibited from free public circulation, and not creating rights in respect of itself in accordance with the law.”

Introduction of the content of this article into the law allows to fully and correctly understand the meaning and essence of a computer virus and also understand that creation of a computer virus is illegal and this object is prohibited from free public circulation.

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