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# VARIOUS FORMS OF COOPERATION IN THE CREATION OF COMPUTER PROGRAMS OR SOFTWARE AND COLLEAGUES RIGHTS(STUDY OF IRAN AND EUROPEAN LAW)

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#### **ABSTRACT**

Cooperation to create computer programs is sometimes innovative and with a preconceived plan between colleagues that is called the common or collaborative software, and sometimes, it is non-innovative and indirect, but with the investment and management of natural or legal persons, which in the rights of some countries, it is called collective computer programs. It is also possible, new computer program will be created based on existing computer program, in which case, we deal with the composite or adapted computer program. In addition, there is a possibility of creating a computer program because of employment or order. Finally, the computer programs can be developed not by human intervention, but this time with the participation of the machine. Although, moral rights, in all forms, belong to the authors, but on the one hand, there is a disagreement about who can have the legal position to prosecute violators of intellectual property rights for computer programs. On the other hand, the economic rights of the participants and partners in the production of computer programs are different in any of the above forms of cooperation. This paper tries to describe the types of cooperation in the creation of a computer program and its differences with other forms of cooperation, and explain and analyze the rights of each partner.

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**Keywords**: Computer programs, Computer program with a single author, Common computer program, Composite software, Collective computer programs, and Computer programs evolve because of an order or hire, computer programs evolve by computer.

#### **INTRODUCTION**

Unlike some works of literature and art, in the traditional sense, such as painting, photography and literature such as poetry and the novel, which are created predominantly by one person, creating a computer program by a single individual rarely happens, meaning without collaborating with other or because of employment or the order contract. In fact, the further development of computer application industry owes to the collective efforts of experts and stakeholders of computer application. However, about the computer program that in terms of function or sizes less important and, in exceptional cases, about the computer program, which has benefited from a certain degree of complexity, its creation of the single person, is not excluded. The right of such a creator does not take a specific legal issue before, but when a computer program is created in collaboration with more than one person, determining the material and moral rights of each participant in its production will have special importance. Computer software creators Protection Act, 2000, Iran has not offered a definition of the Creator, but from the perspective of European Directive, 2009: "The author of a computer program shall be the natural person or group of natural persons who has created the program or, where the legislation of the Member State permits, the legal person designated as the right holder by that legislation" In cases, where the law of a member state recognizes the collective work, a legal person under the law of the member states will be considered as the creator. In this article, with the expression of various forms of cooperation in the creation of software, in any form of cooperation on the one hand and the material and moral rights of each creator and practitioners participating in the development of the software will be studied.

# A) Creating a computer program, a result of creative collaboration (a common computer program or software)

Apart from the software, which is relatively small and is the product of individual effort and it is produced by one person, in other cases, the group, consisting of multiple members with different specialties, in due time, are responsible for the design and developing software systems.

- 1. The forms of cooperation: From a technical standpoint, the activities of design and implementation of computer programs, especially large software systems, typically will be done by more than one person, and in fact, it is the result of a working group. The product of computer program resulted from teamwork (consisting of multiple persons) is called common computer application effect. Design and developing of computer programs, like any other artifact, follow engineering principles and outlined the computer program principles of engineering and from this perspective, the computer program developing steps can be imagined of the process, identify and requirements analysis, design, coding, integration components, testing and bug fixes.
- **2.**Colleagues rights on common computer programs: Distribution of rights among the creators of common computer programs is of great importance.
- 2-1. Economic Rights: From a legal standpoint, according to Article 11 of the Executive Regulations 2000 protect the rights of computer program creators: "when several people contribute in creating software, if the contribution share of any software creator will be clear, its economic rights will be awarded to each one of them to the partnership. If the work of every one of them is not distinct, it is called the joint effect and their right is the rights of mutual creators. "Regarding this article, it should be clear that, if members of the group employed by a company, or transferred it right to the client based on the contract. In this case, according to paragraph (b) of Article 6 computer program Protection Act 2000, computer program product material right is owned by a company (or Client). However, if members of the group have been together or have formed a company and then have produced the software product, in this case, the creators will own the economic rights arising from it. According to some French lawyers, according to complexity of practical matters, the contract between the partners can eliminate the potential weaknesses.
- **2-2.Moral rights**: In what is related to the moral of the computer programs' common creators, it can be inferred from Article 11 of the Regulations Act of 2000 and its notes, if the share of each creator will be specific in developing computer programs, each of them will have moral rights relative to his share. In addition, if it does not recognizable, moral rights can be applied collectively or by any of the author to all work.
- B) Creating computer programs by investing and managing a natural or legal person (collective computer program): Collective work is a concept that is rooted in French law. In the law of the country, "the work is collective when it was initiated by a natural or legal

person and created under the management of his name, printed, published and distributed. The work is resulted from personal contributions of numerous authorsin its developing and editing, without the possibility to assign a separate right for each of them over the work". In Iranian law, the collective work, including collective computer programs that are not recognized, but the bill in 2014, for the first time, with the same definition of French law, has recognized the collective work that is an important step in the field of works created by different people's participation. Under paragraph 3 of Article 1 of the bill: "The collective works are works that are created under the responsibility and investment of a natural or legal person under his name."

- 1. The forms of cooperation: Computer programs, as mentioned, have typically emerged in the form of group activity of people. In particular, often a natural person or a legal person, that are mostly computer program service companies, undertake innovation and management of a computer program development, without computer program creators necessarily know each other and without consultation and planning with each other to develop a computer program. The definition of the collective work is true especially in the important computer application, which is done as a team. In this kind of software, programming will be done by module that comes together at the end.
- 2. Colleagues rights in collective software's: The author of computer program protection law of 2000 and its Regulations has not predicted the collective computer program and the author's right of such a work. As a result, with the lack of regulation in the field of collective computer program, inevitably, the rights of authors and computer program companies, which has taken the initiative and management of computer programs, should be explained and should be interpreted based on Article 6 of the law and within the framework of the program computer generated because of employment.
- **2-1. Economic Rights:** In French law, natural or legal person, that the work is created with his investment and management is known as the collective work owner of economic rights. Bill 2014 (literary and artistic property and related rights) provides in what is concerned the economic rights of the work, Article 35 of the Act: "A person who initiated the collective work with his responsibility, is known the first holder of rights. Note: the authors of a collective work have the right to exploit their contribution separately insofar as they do not harm the operation of collective work, unless they agreed otherwise. "It seems, apply Article 35 of the bill on collective computer program would be highly unlikely in practice. As some

authors have correctly noted: "... that in these cases, the legal person is considered the author, is affected by the letter of law, which apparently was required to facilitate matters and it is a real person can be considered a author based on the power of thinking and having the initiative. "The right of investors to collective work refers to the total work and does not extend to the author right of any part of the work.

- **2-2.Moral rights**: Regarding moral rights of that the work has been created due to his initiative and responsibility has moral rights compared to the total work and each of the individuals of its author in their share." This provision, if adopted, could resolve many problems, particularly moral rights in such works. Application of this article, in the case of collective computer program means that, if the share of each author is known in the computer program, each author will have moral rights to their contribution. However, a person would own moral rights of the total work that a computer program has been created because of his initiative and responsibility. In French law, intellectual property law is silent, but the first branch of the Supreme Court of France (Cour de cassation ) at the polls March 22, 2012, considers the moral rights relative to the total work, belong to the natural or legal person, that the work has been created by the initiative and investment. Thus, the 2014 bill, without passing the changes in French case law, has used this experience with the status of a legal rule efficiently.
- C) Computer programs evolve because of hiring and order: Today, people who are employed by these companies create most of computer programs in software companies and institutions. On the other hand, large and complex computer programs, which can carry out multiple and important commands, mainly, are the orders that still developed by software companies.
- 1. The forms of cooperation: Software or computer programs may be created because of employment, in the sense that the aim of employment is the creation of a specific program or computer programs, or the job that a person will be hired for it, requires the creation of some software. In this form of cooperation, the relationship is based on the wage, on one hand and the subject of employment or the cause that a person has employed to achieve, on the other hand, is important in terms of employment rights and the author of the software.
- 2. The rights of developing software's because of employment or the order: On both types of computer programs mentioned above, the fundamental question for a long time was who is the computer programs author? In addition, who is the right holder of such computer

software? At what related to literary and artistic works, the differences between countries were great not so long ago, so that in numerous reforms, which were in the Berne Convention, member states failed to adopt a unified approach in this area and as a result, it is generally dropped. For more information on different aspects of the subject, the study of law in Iran, French and English can be useful.

**a. Iran's law**: computer program authors' Protection Act 2000, clearly, stated not only in terms of custom computer program, but also in the emerged computer program because of employment. Article 6 of the Law, after having declared in its introduction that the creation of a computer program may be caused by employment or contract, in paragraph (b) provides: "If the purpose of employment or contract is developing the computer program or the creation of it, is the subject of the contract, the economic rights and the right to change and the development of computer programs belong to the employer, unless it is predicted otherwise in the contract ".

On conviction, awareness of the difference between the contracts of employment, laboremployers based relationship and order contracts, based on the relationship between contractor- employers, is necessary. This separation, in terms of rights analysis linked to a computer that is created because of a job contract or contracting contracts or order can be essential.

According to what was said in the interpretation of paragraph (b) of Article 6 the authors computer program Protection Act of 2000, several issues must be considered:

**First**, In the case of the computer that is created in the context of the employment contract, when economic rights are transferred to the client upon creation, that the purpose of employment will be the creation of special computer program. An excellent example of this background is a computer program engineer or specialist in computer application that are employed by the computer program service companies.

**Second-** if a person employed specifically, to create a special computer program, outside his work environment and without the use of financial, technical, and human instruments of the employer, will be able to produce a computer program, economic rights of this computer program will be owned by the employee. Also, when "the employee, along with his daily and normal activities attempts to prepare and create a computer program to perform duties better, then, it will not be subjected to Article 6, but, the material right ownership should be considered to the author (employee)... ".

Third-in addition to the economic rights that in terms of the conditions will be belonged to the employee or the employer, paragraph (b) of Article 6 stipulates, that "economic rights and the right to modify the software development relate to the employer, unless, it is predicted in the contract otherwise ". Some prominent lawyers, on the base, pointed out: "This expression implies the right to change and development are considered the moral rights and belong to the employer, not the author, in which case the rule will be an exception to the general rules". In most laws, a decision has not been established not only on the ability or inability to transfer moral rights, but also, precisely the right has been mentioned in economic rights divisions ".

**b. French law**: In French law, Article 113-9 of the country's intellectual property law has a provision similar to Article 6 of Law 2000: "Except a provision in the Statute or the opposite condition, the economic rights of computer program and its documentation that are created by one or more workers, as a result of a duty or based on the instructions of his employer, will be transferred to the latter one that is the only person entitled in their actions...".

With the approval of the rights transfer to the employer, in the case that a computer program will be produced by the salaried and in the performance of its functions, the verdict on March 6, 2001 third branch of First Paris Court, referring to Article 113-9 French intellectual property law declared the economic rights of computer programs due to the salaried in the performance of created belongs to the employer.

French lawyers, in the interpretation of Article 113-9 mentioned that the element of "place" of the utmost importance, because of computer program that are created at work time and in the work place, it is assumed that, it belongs to the employer, unless, salaried prove, the computer program has not been produced in the performance of its functions.

c. English law: English Copyright, patent and design law 1988 and its subsequent amendments, about the created computer program by a salaried or employees follow from the provisions of paragraph 3 of Article 2 of the European Directive 1991 on the legal protection of computer programs. In the law of the country, if an employee produces a program outside the scope of his normal duties, and to do this, uses the equipment of his employer, or produces it in his work hours; determine the copyright owner will be difficult, although it is more likely to be owned by the employer. However, even in this situation, it makes more sense that, at the beginning, an agreement is reached and the issue is not granted to the time that disagreements arise about the continued use or benefit from the program.

- D) The creation of a new computer program, based on an existing computer program (Composite software): computer program can be considered like other products and artifacts, consisting of components and technology required. In other words, one can imagine a computer program that has several components of computer program and employed one or more technology. Such software is called Composite. Article 4 of the law to protect the rights of computer software authors, adopted on 24.12.2000 instead of composite software, the term "computer program that is created by the computer program" is used.
- 1. The forms of cooperation: Composite computer program is imaginable with two general approaches. First, it is assumed that the components of a composite computer program are not available, so it is necessary to be designed and implemented (produced) from the beginning and thus, the needed technology will be created. In the second approach, which it is in practice and in the real world, one or more components of the computer program and, in general, components are available. The required technology rather than designed and implemented from the beginning and with time and money, it will be selected among the components and the final product can be prepared with them.
- **2.** Colleagues rights in creating a composite computer program: In that case, the separation of the new software and the existing software author's right is necessary.
- **2-1. Economic rights**: Article 5 of law to protect the rights of computer software authors, adopted on 24.12.2000 in this case determined that "creating complementary software and compatible with other applications is allowed to comply with basic economic rights of the Software." This article has not been authorized the creation of complementary and compatible computer program with other computer programs without respecting economic rights of the basic computer program. This means that the basic rights of software, i.e. software that mediates the emergence of other software must be adhered to and respected. In French law, the consent of the originator of the software is necessary.

The terms "complementary and consistent" in the text of Article 5 above, in fact, are expressed as justification for the need to create a new computer program. To explain the concept of "adaptation", in a claim that was based on copyright infringement, because of unauthorized use of interface applications, Inc. read its defense on a theory of "exceptional consistency". The first trial voted in favor of the plaintiffs, but the Court of Appeal accepted the appeal of defendant's company, with the argument that, although the interface programs

are protectable by copyright, but needs to catch up, could lead to denial of support through copyright, in relation to certain parts of a computer program.

In what relates to the rights of each author for primary computer programs and new computer application (composite), Article 77 in the bill 2014provides that: "Material and moral rights of computer program or a new computer program that are created based on the computer program or other computer program, without prejudice to the rights of the holder, belong to the author of the new work. "However, basically, the author of composite software cannot fight with separate exploitation of the existing work or charge a fee in this regard.

**2-2.Moral rights:** According to the Article 5, law to protect the rights of computer softwareauthors2000, it is clear that only economic rights of the author of the original computer program has been considered necessary and his moral rights, is not mentioned. Article 4 of the law, has completed this rule and in the case of observing basic economic rights of a computer program author, the right of a new computer program belongs to the author. Article 13 of the Executive Regulations, also considers the rights, including moral and the economic rights.

As a result, the sum of the matter above, it must be said, the author of the primary computer program does not have moral rights in the new computer program, and observe it from the author of a new computer program is not necessary.

E) Auto-generated software: Every day, the number of computers and works that are created automatically, by software will be added. Of such works and computer programs, the question arose in some countries, whether essentially, such works are supported by legislators or not, and if yes, who is known as the author? The doubt begins when such a computer programs are created automatically and apparently, no one intervenes in their creation. Law to protect the rights of computer softwareauthors2000in this case is silent. In response to this question, it must be said, if the created computer program by other computer programs will be considered as the concept of right system because of having the originality of a creation, the computer system user and the primary computer program will be the authors because, by using this system, they have created a new computer program. This principle was stated in paragraph 5 of Article 2 of the European Directive draft concerning the legal protection of computer programs 1991 European Union. "In the opinion of some French authors, in the absence of explicit agreement, we can say that, the funds paid for the right to use, include the right to use already existing elements, too.

Copyright, English patent, innovation and design law 1988, clearly acknowledged that the works created by computer or with the help of which, have the benefit of copyright law. According to Article 178 of the Act, the "computer generated" means that, the work is created by a computer and in the conditions that the author is not a human. Such works are sponsored before 1988, but in terms of copyright, there were failures to identify the author. In the case of "Express Newspapers v. Liverpool Daily Post & Echo plc.", (1985) the Court considered a set of random numbers that were selected by a computer, for a newspaper contest, called "millionaire Moon" under the protection of copyright law.

Such an approach in the law can lead to problems, because in many works created by computer or with the help of which cannot say with certainty that the work has a human creator.

#### **CONCLUSION**

There are various forms of cooperation, to create software. Sometimes this collaboration is direct and creative based on primary and organized programming, from which, they call common computer programs. Cooperation in the production of computer programs may be indirect and without any prior planning. An excellent example of this is when a person seeks to create a new program, based on an existing computer program, whether by improving existing software or its compatibility with software or new hardware, that in this case, it is called a composite computer program. Cooperation for development of software may be initiated by the natural or legal person, that has an investment and undertakes its responsibility and it is called collective computer programs. In addition, it is possible that the application will be created by individuals, but because of employment or the order, that is called the evolve software, because of employment or the order. Finally, there is the creation of software by automated computer programs. However, in all these forms, individuals that are the producer or author of the software, have moral rights, butthe economic rights of partners will be different according to the type of their cooperation in software creation.

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