

The Concept of “Originality” and the Merger Doctrine in Japanese Copyright Law: The Meaning of the System Science Case

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Introduction

On June 20, 1989, the Tokyo High Court handed down its decision in the *System Science* case. This case has attracted attention due to the fact that it denied the originality of a program work. An article reported in *The Nihon Keizai Shimbun* on October 30, 1989, stated that the reasoning of the decision was stricter than that regarding program copyrightability in the United States. It also reported that American lawyers had been considering how to deal with such a decision. Also, according to the same article, some specialists had criticized the decision saying, “[t]here is no reason to establish a special concept of originality for program works under Japanese copyright law.”

However, in my opinion, the concept of originality in this decision does not constitute a special case. After due examination of the legal history involved, I feel that the concept of originality applied in this decision follows the traditional concepts. Also, in my opinion, although the concept of originality under Japanese Copyright Law differs from that of the United States, it does not limit the scope of protection of program works. The concept of originality under Japanese Law denies “personality” of expression if the form of expression is limited in its relationship to ideas. That means that the concept of “originality” in Japanese Law involves the so-called “Merger Doctrine” from United States copyright law. United States law denies copyright to an expression where the form of expression is limited in its relationship to ideas in accordance with the Merger Doctrine. Therefore, there is not a great difference in the scope of protection of copyrightable works under United States law and that of Japan, although there may be some difference in classifying views of the Merger Doctrine as an issue of originality or that of expression.

This article will discuss the Tokyo High Court’s decision in the *Systems Science* case, the concept of originality under Japanese Copyright Law, and the concept of originality and the Merger Doctrine under United States law.

System Science case

Facts

This case involved a preliminary injunction application to prohibit reproduction and adaptation of a computer program (Tokyo High Court Decision of June 20, 1989, Hanrei Jihou 1322-138). The applicant, a corporation which develops, produces and sells equipment for biotechnology purposes, had, at the time of the application,

developed and incorporated into its equipment four computer programs that automatically measure the influence of chemicals on the growth of bacteria and output the relevant results.

The adverse party, a corporation which is involved in the same field as the applicant, had reproduced three of the four programs developed by the applicant, and in addition, developed a program (“CA-9”) similar to the fourth program (“CA-7II”), and thereafter produced and sold equipment which utilized each of these programs. The applicant claimed that the adverse party’s action constituted an infringement of its reproduction or adaptation rights in each of the programs, and requested a prohibition of such infringement by way of preliminary injunction.

The issue

Although ownership of the programs copyrights and the “necessity” requirement for the issuance of the preliminary injunction were also disputed, the primary issue before the court was whether or not the development of the CA-9 program by the adverse party was an adaptation of the applicant’s CA-7II program.

Decision of the Tokyo High Court

The Tokyo High Court denied the originality of the applicant’s CA-7II program and the defendant’s subsequent alleged adaptation thereof as follows:

“In order to hold that a certain program infringes the copyright of another program work, as a matter of course, it is necessary that some parts of the other program work shall be admitted to have originality in a combination of commands, and that the combination of commands in the later program is similar to the said parts of the earlier program containing an original combination of commands. However, it has not been established that there is originality in the combination of commands on such parts of the CA7II program as were claimed by the applicant.”

In considering whether such originality was present, the Tokyo High Court initially stated its general position as follows:

“Since symbols to express programs are narrowly limited and their systems (grammar) are fairly strict, if anyone plans to obtain a more effective result using electronic computers, there would be more than a few parts of such a combination of commands that could help being similar to those of existing programs. Therefore, the holding of infringement of copyright on program works shall be made after due consultation.”

Secondly, it held as follows concerning the originality of the similar parts in the combination of commands:

“It is tentatively recognized that the combinations of commands in the ‘Disposal routine after data input from the central part’ is constrained by the hardware, and,

therefore it cannot help having similar combinations naturally, and that regarding 'Disposal routine coping with dysfunction of printer'... both the CA-7II program and CA-9 program are adapting a very commonplace combination of commands Consequently, it is difficult to find originality in the combinations of commands that are claimed by the appellant for the CA-7II program."

Further, the Court stated the classification between ideas and expression in programs as follows:

"'sequence of disposal' itself is an algorithm, that is a 'method of operation' as provided for in paragraph 3, (3) of Article 10 of the Copyright Law and it cannot be protected as a copyrightable work."

Concept of originality under Japanese Law

Copyright Law defines "work" as "original expression of thoughts or feelings which falls in the scope of literature, science, fine art or music" (Paragraph 1(1) of Article 2), and sets "originality" as a requirement of a copyrightable work. According to legal history and scholastic theories, "originality" means a manifestation of the author's personality. For instance, the Tokyo District Court Judgment of March 3, 1986 (Hanrei Jihou 1183-148, Hanrei Times 609-95), concerning the copyrightability of the "Expectation of success and failure" as made for the election of Representatives of the House, stated:

"It should be interpreted that 'Originality' is different from creativity in its strict meaning and that it only means the manifestation of the author's personality in the external form of expression...."

Therefore, if we ask whether only simple reproduction lacks the requisite "personality," the answer is yes. Examining those past cases that questioned originality, the precedents can be classified into the four categories concerning "personality," as follows:

- (1) "simple reproduction" -when a pre-existing expression is simply reproduced.
- (2) "trivial change" -when a pre-existing expression is changed but to a trivial extent.
- (3) "inevitable expression of ideas" -when it is inevitable that the same form of expression as the pre-existing expression is necessary in order to manifest a certain idea or fact (hereinafter called simply "ideas").
- (4) "commonplace expression of ideas" -when ideas are expressed in commonplace forms of expression.

In cases of "simple reproduction," there is no possibility of expressing the

personality of the author. This is obvious when someone simply reproduces sentences from other novels. In the case of copying other pictures and handwriting by machines, there is no personality of the author. However, if it is copied by hand, it would not necessarily be identical to the pre-existing work and there may be some personality of the author. In this case, the issue will be whether the matter constitutes a “trivial change” as follows.

The cases where originality is denied under the concept of “trivial change” arise when the author changes the pre-existing work so trivially that any changes cannot be distinguished from the pre-existing expression. For instance, where the defendant argued that the plaintiff’s “world map for a terrestrial globe, which was made by editing the pre-existing maps does not possess its own originality which can be distinguished from other similar works,” the Tokyo High Court found that the plaintiff’s map contained the requisite originality, after dealing with it in the following manner (Judgment of February 2, 1971, Hanrei Jihou 64393):

“It is admitted that, without simply adapting the matters of various data from the pre-existing work, Mr. Ikeda endeavored... to express the matters by choosing various materials, based on his own design and system. ... It is further admitted that it is obvious that his forms to express ocean currents are different from those of the pre-existing world maps, and that there is an obvious difference between the said world map for a terrestrial globe and the pre-existing ones in the indication in English of country names, city names and other places, and in the choosing of airline routes. Therefore, it is perfectly legitimate that the original judgment admitted that the plaintiff’s world map possessed its own originality which can be distinguishable from other similar works and held it a copyrighted work.”

If originality were to be admitted regarding indistinguishable changes and copyright protection given to such a work, the protection would extend not only to the changes of authorship but also to the expressions from the pre-existing works. In those cases, the author of such changes could obtain exclusive rights to the pre-existing works, and such trivial changes could limit public access to the pre-existing expressions even through such expressions are in the public domain. Therefore, where such trivial changes cannot be distinguishable from the pre-existing expressions, originality should be denied.

Cases where originality is denied under the concept of the “inevitable expression of ideas” happen when only one form of expression is possible to express certain ideas. For instance, in a case adjudicated in the Osaka District Court the issue involved the originality of the plaintiff’s research report on a light-emitting diode which was allegedly pirated in the defendant’s thesis. The Court denied the originality of expression of the plaintiff’s research as follows (Judgment of September 25, 1979, Hanrei Times 379-152):

“Copyright Law defines work as the ‘original expression of thoughts or feeling which falls in the scope of literature, science, fine art or music’ (see paragraph 1(1) of Article 2 of the said law). Copyright Law shall protect the original form of

expression which gives tangible manifestation to ideas and feelings in words, letters, sound, color, and etc. However, even though having originality and novelty, the contents expressed thereof, namely, ideas or theory such as thoughts or feelings themselves, excepting stories of novels, cannot principally be the said works and they shall not be protected under Moral Rights of Author nor Property Rights prescribed in the Copyright Law (the so-called Principle of free idea). Especially since the laws of natural science and their discovery and the inventions which are the creation of technical ideas utilizing the said laws are common facts for all people, and anyone shall be permitted to make free use of those facts, it shall be considered that they cannot be the subject of Moral Rights of Author or Property Rights provided for in the Copyright Law, although those inventions shall be nothing but objects of Industrial Property Rights such as Patents, Utility Model Rights and Design Rights. Though, in fact, regarding the laws of natural science and their discovery and the inventions utilizing these laws, it shall be considered that if there is originality in the methods of description and if the original expression of a process of a particular theory falls in the scope of science or fine art, then separately from its content, forms of such expressions shall be under the protection of Moral Rights of Author or Property Rights....

“Judging from their statements, the parts described in Attachment 1, (1) and (2) of the defendant’s thesis and the defendant’s Evidence No. 2 (the plaintiff’s research report), are a description of the laws of natural science, structures and natures of MgTe-CdTe and other materials. As mentioned above, regarding the descriptions of those rules of natural science, structure and nature of materials, although their original forms of expression (methods of explanation) shall specifically come under the ambit of protection by Moral Rights of Author and Property Rights, it shall be considered that their contents themselves cannot be the subject of protection by Moral Rights of Author and Property Rights even though their contents were originally created by the plaintiff. Consequently, the parts described in Attachments 1, (1) and (2) of the said thesis do not infringe the parts of the plaintiff’s Right of Making Public and Right of Indication of Name on the parts described in Attachments 1, (1) and (2) of the defendant’s Evidence No. 2, just because the said parts of the thesis and the defendant’s Evidence No. 2 are identical in their statement content...

“It shall be considered that differently from the general literary works which have several forms of expression for the same matter, a portion explaining laws in reference to natural science has available forms of expression which are short on personality of the author and fairly commonplace because of their nature, and accordingly the forms of explanation for each law are not the subject of Moral Rights of Author or Property Rights especially unless the thesis in which they are contained is acknowledged as an original work based on the author’s personality. However, there is no reasonable evidence to find that the plaintiff originally expressed the descriptive parts in Attachments 1, (1) and (2) as an explanation of materials and natures of MgTe, CdTe and other scientific laws, and that therefore the forms of expression (methods of explanation) should be the subject of the protection of Moral Rights of Author and Property Rights.”

This judgment described the theories that (1) protection of copyright is given to expression but not to the ideas described thereby, and (2) even if it is expression, it does not possess originality when it uses unavoidable forms of expression to describe such ideas.

The Copyright Law reflects the first theory in the following manner: (1) Paragraph 1, (1) of Article (1) of the Law defines “expression” as a “work” on the premise of the dichotomy of expression and idea; (2) Paragraph 2 of Article 10 denies the copyrightability of “News reports on current topics and miscellaneous news which are nothing but delivery of facts”; and (3) Paragraph 3 of Article 10 provides that “a programming language, rule or algorithm,” which is idea, shall not be protected by the Copyright Law.

Recently, it has been suggested that for computer programs, copyright protection should be given to ideas by interpretation of existing laws or by enactment of new legislation. Computer programs describe the techniques which give a certain output for a certain input. Developers of programs wish to have protection for the technique itself since they invest a lot of capital in development of the technique itself, rather than its description. However, contents of the technique itself are solely ideas.

To protect ideas by copyright is considered one method of providing protection for developers of programs. However, this method is inappropriate for the following reasons. If copyright protection of ideas is permitted, its legal boundaries would become unclear and it might damage legal stability. The extent of the expression of “work” is clear, but the extent of the idea contained in the work is unclear. Patents protect ideas, but the extent of protection of ideas is clarified by a claim system while the ideas are screened by an inspection system which exams whether the ideas are appropriate for protection. However, there is no inspection system or claim system in Copyright Law. Therefore, legal protection regarding computer programs is necessary; however, we need to enact new legislation proper to protect not only the expression but also the ideas of computer programs. As long as we try to protect computer programs within the system of copyright, the extent of protection should be limited to only “expression.” Whether the idea is novel or not, copyright protection should not go beyond “expression.”

The second aforementioned theory, stating that a work does not possess originality where the expression of the ideas uses an unavoidable form of expression, is a corollary of the Industrial Property Right system. The Industrial Property Right system is for the protection of ideas; however, it also contains public organizations set up for the purpose of reviewing protection requirements. If copyright protection were to extend to the simple description of ideas, exclusive rights would be given to ideas by copyright without reviewing the protection requirements by a copyright institution and without public notice of extent of protection, and it would be impossible for the public to use those ideas without infringing the copyright. Consequently, that would go against the public policy behind the Industrial Property Right system.

Cases where originality is not admitted under the concept of the “ordinary expression of ideas” happen where the expression of those ideas is described using ordinary and commonplace forms. For example, when the question of the originality of a “bookkeeping classification board” whose records are arranged in disk form, in order to systematically keep complicated journals, was adjudicated, the Osaka High Court denied its originality for the following reasons (Judgment of March 29, 1963, Lower Court Cases 14-3-509):

“The sentences printed in a radial section of the aforesaid classification board are enumerated as an example of daily commonplace dealings, and the titles, arrangement, combination, methods of classification of counting subjects indicated in each subject’s column of the debtor and the creditor by turning the disk are elementary and typical. Accordingly, each of them does not have an originality particularly in science. We consider that, were copyright to be given to these trite phrases used ordinarily as technical terms, people other than the author of the work would not be able to use them and consequently there is a possibility of hindering the development of society and culture. In view of these points, if we take the classification board into consideration as an independent object, needless to say, this classification board cannot be considered to be a independent work, even though we understand that it was previously given copyright registration as an attachment to other books in 1957.”

Also, in a case where the originality of a permanent calendar whose characteristics were a color classification and an index table, the Osaka District Court also denied its originality (Judgment of January 26, 1984. Hanrei Jihou 1102-032), stating:

“To classify by colors seven mark forms which are necessary for the said design, everybody could possibly think of the idea to use the seven colors of the rainbow as are used in the calendar, and therefore we admit no originality in the said choice of colors....

“The said calendar adopted the combination of a permanent calendar and an index table, and the structure of a permanent calendar that sets a calendar year in the right and left sections and each month in the upper section and puts colored rectangles at the intersections. It is just a permanent calendar whose idea had been popular in the form of a rotary type and slide type, and which has only been modified into a calendar mode using a combination of an index table and mark forms (refer to the attached Utility Model Right Notice R1-L30 through R2-L19). We consider it doubtful that the expression of the said permanent calendar has originality in its expression of the ideas in pre-existing permanent calendars in a special scientific style, even though the idea thereof might be the novel idea under the Utility Model Right Law.”

The Tokyo High Court reasoned as follows in a case which questioned the originality of the “American Language Dictionary,” the characteristic in issue being the selection of model sentences (Judgment of May 14, 1984, Hanrei Jihou 1116-123):

“Moreover, though it is considered that the Japanese translation of words, phrases, idioms and model sentences and the changes in wording by English of entry words were expressed as a result of the plaintiffs intelligent work, each of them is merely the Japanese translation or change in wording by another English of the very daily words, phrases, idioms or short English sentences. Therefore, unlike long sentences, it is considered that if they are translated by anyone who has the ability to understand English, their translation would be the same or a similar one, and accordingly it is not the plaintiff’s own original expression.”

As mentioned above, copyrightability of the expression of ideas is denied if the expression of the idea is limited to ordinary and commonplace forms of expression, since everyone should be free to use ideas. Exclusive rights should not be given by Copyright Law to ideas which are not protected by Industrial Property Rights such as Patents. These ideas should be able to be freely used by everyone as common property. Free use of ideas would be prevented unless, not only inevitable forms of expression of ideas, but also commonplace forms of expression which everybody contemplates, are excluded from copyright protection.

Judging from the above considerations, the principles under which originality is denied are completely different, and the meanings of copyrightability are slightly different, in the categories of “simple reproduction” and “trivial change,” and “inevitable expressions of ideas” and “commonplace expression of ideas.” The principle in the two former concepts is existence of creative efforts by the author himself or the possibility of identifying the existence, while the principle in the context of the latter two is free use of ideas. Neither the meaning of originality in the former or latter requires novelty (meaning something nobody ever thought of before), however, the former is confined to require the author's own creative efforts. On the other hand, the meaning of originality of the latter requires author’s uniqueness his selection if a large number of forms of expression are available, and in the creation of the expression where the available forms of expression are limited. Both the former and the latter can be understood to be included in the concept of “author’s personal expression.”

The decision of Tokyo High Court in the *System Science* case denied originality as defining “inevitable expression of ideas” or “commonplace expression of ideas” regarding the CA-7II program and its similarity to the CA-9 program. The decision denied originality since “the combinations of commands in the ‘Disposal routine after data input from the central part’ is constrained by the hardware, and, therefore it cannot help having similar combinations naturally.” It was an inevitable combination of commands so that a combination of commands (expression) can carry out certain function (ideas) upon the same hardware.

The decision also denied originality on the basis that “[b]oth the CA-711 program and the CA-9 program of ‘Disposal routine coping with dysfunction of printer’... are adapting a very commonplace combination of commands.” They constituted commonplace combinations of commands (expression) to carry out the certain functions (ideas).

Accordingly, the *System Science* case decision merely adapted traditional concept of originality to the program works, but did not adopt a new or special concept of originality.

Originality and Merger Doctrine under American law

American copyright law requires originality for a copyrightable work and provides in Article 102 (a) that:

“Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”

In the case of *Alfred Bell & Co. v. Catalda Fine Arts*, 191 F.2d 99 (2d Cir. 1951), the United States Court of Appeals stated “originality” as follows:

“‘Original’ in reference to a copyrighted work means that the particular work ‘owes its origin’ to the ‘author.’ No large measure of novelty is necessary. Said the Supreme Court in *Baker v. Selden*... , “The copyright of the book, if not pirated from other works, would be valid without regard to the novelty, or want of novelty, of its subject-matter. The novelty of the art or thing described or explained has nothing to do with the validity of the copyright.

“It is clear, then, that nothing in the Constitution commands that copyrighted matter be strikingly unique or novel. Accordingly, we were not ignoring the Constitution when we stated that a ‘copy of something in the public domain’ will support a copyright if it is a ‘distinguishable variation’... All that is needed to satisfy both the Constitution and the statute is that the ‘author’ contributed something more than a ‘merely trivial’ variation, something recognizably ‘his own’ Originality in this context ‘means little more than a prohibition of actual copying.’”

It is obvious from this decision that the copyrightability of “simple reproduction” and “trivial change” are denied by the requirement of originality under U.S. copyright law as well.

American copyright law also has the so-called “Merger Doctrine.” The Merger Doctrine provides, as to the matter of expression, that forms of expression which are inevitably accompanied in order to express ideas are not protected. The Supreme Court of the United States reasoned as follows in the famous *Baker v. Selden* case (*Baker v. Selden*, 101 U.S. 99, 11 Otto 99, 25 L.Ed. 841):

“The copyright of a work on mathematical science cannot give to the author an exclusive right to the methods of operation which he propounds, or to the diagrams which he employs to explain them, so as to prevent an engineer from using them whenever occasion requires. The very object of publishing a book on science or

the useful arts is to communicate to the world the useful knowledge which it contains. But this object would be frustrated if the knowledge could not be used without incurring the guilt of piracy of the book. And where the art it teaches cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public; not given for the purpose of publication in other works explanatory of the art, but for the purpose of practical application.”

The Merger Doctrine is applied not only to the cases where describing the ideas cannot help taking other forms of expression, but also to cases where the ideas can be described only in the limited number of forms of expression. That is because “‘the topic necessarily requires,’... if not only one form of expression, at best only a limited number, to permit copyrighting would mean that a party or parties, by copyrighting a mere handful of forms, could exhaust all possibilities of future use of the substance.” *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675 (1st Cir. 1967).

As is obvious from the above, the Merger Doctrine is based on the same principle as “inevitable expression of ideas” and “commonplace expression of ideas” under Japanese Copyright Law. The Merger Doctrine, which has been discussed as the issue of expression under American Law, has been incorporated through the concept of originality in Japan.

Regarding the System Science case, the Tokyo High Court denied the copyrightability of the program under the concept of originality. Originality in that case would not be denied under American law, even though its protection might be denied by the Merger Doctrine. As such, the concept of originality in the United States and Japan differs, however, the scope of copyrightable works is substantially the same though there may be a formal difference in the incorporation of the Merger Doctrine into the concept of originality or making it a separate a principle.

We should keep in mind that the difference between incorporating the Merger Doctrine into the concept of originality and making it a separate principle may lead to different legal procedures. In case of the former, the plaintiff would be responsible for proving originality, while in the latter situation, the defendant would be responsible for proving the facts under the Merger Doctrine as a defense.

Conclusion

The concept of originality which the Tokyo High Court adapted in the System Science case corresponds to the Merger Doctrine. From the viewpoint of the Merger Doctrine and the traditional concept of originality, it is legitimate that the court denied copyrightability of the program which was merely an “inevitable expression of ideas” or an “commonplace expression of ideas.”

Moreover, the decision described in *obiter dicta* that “‘disposal of sequence’ itself in a program is an algorithm,” which raises an important issue. The well known American case of *Whelan v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222 (3d Cir. 1986), held that structure, sequence, and organization of programs should be protected under copyright law. Also, in the *Dig Dug* case, the Tokyo District Court confirmed that copyrightability of video game programs (Tokyo District Court Judgment of March 8, 1985, *Hanrei Times* 561- 169), and indicated that there is a story in the program of a video game. It is widely admitted that a novel story can be protected by copyright. Accordingly, it is doubtful that we can simply define “disposal of sequence,” which is a story in the program, as an “algorithm.” However, since this issue of “expression and idea” is beyond the issue of “originality,” this can be left for discussion at a later date.

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