An Attempt to Reorganize the Concept of Creativity, Originality, or *Individualität*

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Introduction

Comparing the Japanese Copyright Law with the United States Copyright Act and the German Copyright Law, substantial requirements for copyrighted works are different in each country: creativity in Japan, originality in the United States, and *Individualität* in Germany. However, they seem to aim at the same goal, or the same three functions.

The word "creativity" under the Japanese Copyright Law corresponds to "originality" and "*Individualität*" under the United States Copyright Act and the German Copyright Law, respectively. For the purpose of discussing the three functions below, please allow "Creativity" to represent "originality" and "*Individualität*" as well, unless otherwise specified.

First, works may be protected by expressing thoughts or sentiments or ideas in a sensible form. Creativity justifies protection of newly created expressions. In each country, Creativity is a requirement for protection of works and, therefore, Creativity has a "function to justify copyright protection".

Second, copyright is granted to newly created expressions. However, where such newly created expressions have no other alternative expressions but must be used in order to exploit the underlying idea, copyright acts as a tool to monopolize exploitation of the underlying idea. Thus, a "function to prevent copyright protection from extending to ideas" is required for Creativity.

Third, a function to prevent copyright protection from practically extending to existing expression is required for Creativity. Creativity requires a new work to be created without relying on, and independent of, existing works. That is, Creativity is denied and copyright protection is not granted to works that just copy existing works. The reason is that, if copyright is granted to such works, exploitation of the existing works

itself would be monopolized by the copyright granted to the newly created works. For this reason, there is a rule that, when a new work is created using an existing work, only a newly added expression is protected by copyright. As just described, the "function to prevent copyright from extending to existing expressions" is required in Creativity.

Focusing on the three functions above, we should reorganize the concept of Creativity from the viewpoint of what rule would be the most appropriate for each function.

Let us first look at the functions carried by the concept of Creativity under the United States Copyright Act.

Concept of Creativity under the United States Copyright Act

Concept of Originality

The leading case for the concept of originality under the United States Copyright Act is the *Feist* Case.[1] The Supreme Court in this case defined originality as "original, as the term is used in copyright, means only that the work was independently created by the author (…), and that it possesses at least some minimal degree of creativity".

The minimal degree of creativity was held by the Court that "the selection and arrangement of facts cannot be so mechanical or routine as to require no creativity whatsoever". Thus, minimal degree of creativity is not found in mechanical or routine creation. Accordingly, the requirements for originality are summed up as follows:

(1) New expressions must be created;
(2) New creation should not be mechanical or routine; and
(3) New expressions must be created independent of existing works.

As you may have noticed, these three requirements correspond to the three functions mentioned in the beginning.

Function to Justify Copyright Protection

Let us look at the first function, the "function to justify copyright protection". It is important to keep in mind that the idea of copyright in the United States is based on the Incentive Theory. This is totally

1 *Feist Publications, Inc*. vs. *Rural Telephone Co., Inc*., 499 U.S. 340 (1991).

different from that in Japan or Germany. Under the Japanese Copyright Law, exclusive rights similar to property rights are afforded to intellectual creations under the natural law.

In the case of the United States Copyright Act, on the other hand, the natural law is premised on the idea that intellectual creations may be used without injuring others' rights and interests, and therefore they are in the public domain and may be freely copied. Specifically, the United States Constitution provides as follows:

> "The Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries . . . ."[2]

It states that the purpose of the Copyright Law is to promote the progress of science and useful arts, but does not state that it is to protect man's natural rights or moral rights. The *Sony* Case[3] clearly brings up this point. The court held that:

> "The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired."

Accordingly, protection of authors is not the purpose of copyright. Its purpose is to enable free exploitation of works by the public after granting exclusive rights to created works for a certain period. It clearly explains the point that enabling free exploitation of works by the public is the purpose of the Copyright Law.

Thus, protection of a work by copyright is decided from the viewpoint of an external factor, the public policy, and not by authors' activities or expressions of personality.

The public policy aims for exploitation by the public, so it naturally leads to a conclusion that it should promote creation of such works as demanded by the public by protecting them with copyright.

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2 United States Copyright Act, Article I, Section 8(8).
3 *Sony Corp*. vs. *Universal City Studios*, 464 U.S. 417 (1984).

Accordingly, copyrightable works could be anything. It could be a work created by non-professionals, or even by machines or animals in the extreme case. As long as it is an effective measure to promote creation of such work as demanded by the public, copyright may be justified for such works.

In accordance with the Idea-Expression Dichotomy, the mission of copyright is to protect expressions, and thus copyright protection is justified in general so long as it is afforded to creation of expression.

The leading case which clearly reflects this point and made the foundation of the United States Copyright Act is the *Baker* case.[4] The issue here was a book. The court held that "unless this book is plagiarism of others' works", the book is protected by copyright. This argument may be too simple as it argues that a book is protected by copyright so long as the book is newly created and is not plagiarism of others' works, and it requires nothing else such as elements of quality.

Five years after the *Baker* Case, the court in the *Burrow-Giles* Case[5] held that "an author in that sense (constitutional provision) is 'he to whom anything owes its origin; originator; maker; one who completes a work of science or literature'". It clearly states that originality requires only generating new expressions.

Ultimately, the only requirement of originality is generating new expressions for the function to justify copyright protection.

Function to Prevent Copyright Protection from Extending to Ideas

There are many rules in the United States that prevent copyright protection from extending to ideas.

The first rule is the Idea-Expression Dichotomy. It separates ideas and expressions into two different elements in which ideas are subject to protection by patent and expressions are subject to protection by copyright.

The second rule is the Free Idea Doctrine. Even though a book contains technical contents that may be potentially patentable, copyright protects only explanations of the ideas and does not protect ideas themselves.

The third rule is the "Merger Doctrine", which is important and is premised on the above two rules. For instance, where an idea and an expression is one to one, and where this expression is the only way to

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4 *Baker* vs. *Selden*, 101 U.S. 99 (1879).

5 *Burrow-Giles Lithographic Co*. vs. *Sarony*, 111 U.S. 53 (1884).

express this idea and there is no alternative way, then the Free Idea Doctrine and copyright protection of expressions conflict with each other. From the viewpoint of two overlapping rights, it would not be an issue to approve copyright protection and that ideas may be virtually monopolized by such copyright.

Opposed to this view is the Merger Doctrine whose idea is that the Free Idea Doctrine should supersede the protection of expressions by copyright, in which case protection of expressions shall be denied. The *Baker* Case states that:

> ". . . 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."

Accordingly, the Free Idea Doctrine supersedes the protection of expression by copyright where these two conflict with each other. As a result, copyright protection is denied for expressions that are inevitable to ideas.

The fourth rule is the "scènes à faire Doctrine" as a corollary of the Merger Doctrine. What happens if an idea and an expression is not one to one but one to many? The answer to this question is the so-called "scènes à faire Doctrine". Let me introduce one court case, the *Data East* Case.[6] It was held that:

> ". . . . Nor can copyright protection be afforded to elements of expression that necessarily follow from an idea, or to 'scenes a faire', i.e., expressions that are 'as a practical matter, indispensable or at least standard in the treatment of a given [idea]' . . .".

Accordingly, even if there may be many ways of expression to express one idea, copyright protection is denied to a particular way of expression which is standard or ordinary to express an idea for people in general, for the sake of freedom of ideas.

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6 *Data East USA, Inc*. vs. *Epyx, Inc*., 862 F.2d 204 (9th Cir. 1988).

Function to Prevent Copyright Protection from Extending to Existing Expressions

Lastly, let us look at the "function to prevent copyright protection from extending to existing expressions".

As a matter of course, it is required for finding originality that a work be created without relying on existing expression. However, a work is protected as a derivative work if new expressions are added to existing works and if originality is found in such newly added expressions.

Now, adding new expressions to existing works is a necessary condition for derivative works, but could it also be a sufficient condition? In the *Alfred Bell* Case,[7] a person created a copperplate print of a painting that is in the public domain, and he filed a suit against another person who copied the copperplate print, alleging that it is a copyright infringement. Comparing the painting and the copperplate print, there are differences in the width of lines and others, as a matter of course. The point of dispute here was whether or not this difference would be considered to be such new expressions that can constitute a derivative copyrightable work.

In the above case, the court denied copyright-ability in the copperplate print. It pointed out whether there is a distinguishable variation or not, holding as follows: ". . . 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' . . ."

Accordingly, the United States adopts the idea that newly added expression must be distinguishable from the existing expressions to support copyright to a derivative work.

Concept of Creativity under the German Copyright Law

Concept of *Individualität*

Next, let me introduce the concept of *Individualität* under the German Copyright Law.

Under the German Copyright Law, a work is defined as "the author's own intellectual creations".[8] The German Copyright Law is based on the Personality Theory rather than the Intellectual Property Theory.

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7 *Alfred Bell & Co.* vs. *Catalda Fine Arts*, 191 F.2d 99 (2d Cir. 1951).

8 Copyright Law, Article 2.2.

The Personality Theory is based on an idea that since a work reflects a person's personality, it should be protected under copyright as an extension of moral rights. The following four requirements are considered to constitute the "individual's intellectual creations":

(1) It must be the creation of an individual. The individual here means a person in specific. The German Copyright Law is based on the Personality Theory and thus it does not accept a work made for hire.
(2) The creation must reflect intellectual contents.
(3) Creation must be made in a perceivable form. Thoughts and sentiments are inner feelings, and it is required that a work is expressed and put into shape in a perceivable form conveyable to others, such as in writing, speaking, and others.
(4) *Individualität* of an author must be expressed in creation. The concept of personality is the substantial content. Personality is required because the German Copyright Law is based on the Personality Theory, as mentioned above.

It has been said that high degree of creativity (*Gestaltungshöhe*) is required for *Individualität*. High degree of creativity requires creativity higher than the average creativity. The average creations mean creations based on talent of ordinary persons, and high degree of creativity is found only for creations beyond the average creations, in which case *Individualität* is found and they can be copyrightable works.

Since copyright may grant an exclusive right to a work for 70 years after decease of an author, a work must not be average. The underlying idea is that unless high degree of creativity is found in a work, it does not suffice to give such high level of protection.

As a result, although a work made by an infant may be considered to be a copyrightable work in Japan (to be discussed later), that is not the case in Germany. For instance, an artistic photograph taken by a professional photographer may fall within a category of photographic works, but that taken by a non-professional does not fall within a work. This is because such photograph lacks in personality and thus it is not protected by copyright.

However, this causes a problem in real life. Thus, photographs taken by non-professionals are protected by neighboring rights. Out of necessity, the German Copyright Law protects even creations without personality by granting neighboring rights. Therefore, the scope of creations protected by neighboring rights are wider in Germany compared to Japan. There are ten kinds of creations that fall within protection by neighboring rights, including photographs and databases.

The situation has been recently changing in Germany. As harmonization of copyright is advanced by the EU Directive, German traditional theory is no longer suitable. For example, the requirement for protection of "computer programs" is harmonized to the "author's own".[9] Protection must be given to a work so long as the "author's own" is found, and high degree of creativity under the traditional German Copyright Law to this effect is denied.

The same applies to databases and photographs. Their protection requirement is replaced by the "author's own" by the EU Directive.[10] The German Copyright Law is easing the high degree of creativity also in these kinds of fields.

As to applied arts, the German Design Law had required an especially high degree of creativity. As a result of amendment to the Design Law, however, such requirement is now repealed, and the ordinary degree of creativity is required instead of an especially high degree of creativity.

Things are undergoing a great change, and there is now even an opinion that the requirement of a high degree of creativity should be repealed and just the concept of originality would suffice.

Function to Justify Copyright Protection

As mentioned above, a high degree of creativity requires expressions above the average expressions created through the talent of ordinary persons. As a result, just creating an expression does not suffice, but a high degree of quality is required. For certain categories of works, a high degree of creativity that is clearly beyond the average creation is required.

Because the German Copyright Law is based on the Personality Theory, not only is creation of expression required, but also a high degree in quality is required to justify copyright protection.

Function to Prevent Copyright Protection from Extending to Ideas

Next, let us look at the "function to prevent copyright protection from extending to ideas" required in the concept of Creativity under the German Copyright Law.

In the first place, there is no doctrine that "copyright may not extend to ideas" in the traditional German Copyright Law. Because of the EU

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9 Computer Programs Directive [Council Directive 91/250/EEC; 2009/24/EC], Article 1(3).

10 Database Directive [Directive 96/9/EC]; Article 6 of the Protection Term Directive [Directive 2006/116/EC], Article 3(1).

Directive mentioned above,[11] however, this doctrine has been introduced into the German Copyright Law and is now being accepted in general.

On the other hand, there has been a notion similar to this doctrine in the traditional German Copyright Law, and it is looking for a similar function.

Under the German traditional notion, thoughts, doctrines, and theories are the so-called public domain and thus they may not be monopolized by copyright. It is not different from the Idea-Expression Dichotomy where ideas and expressions are separated and copyright does not extend to ideas. Therefore, it does not mean there is no doctrine that ideas in general may not be protected by copyright under the German traditional copyright theory. However, it is considered that thoughts, doctrines, and theories among ideas are out of scope of protection.

Under the traditional theory, there was a Form-Content Dichotomy where it separated forms and contents. However, neither "forms" corresponds to "expressions" nor "contents" corresponds to "ideas". Most likely, the concept of "forms" is narrower than that of the "expressions". Forms may often be divided into "external form" and "internal form" and, taking a novel as an example, wording applies to the external form and rephrasing applies to the internal form.

When talking about "expressions" in the "ideas and expressions", the expressions include not only such wording and rephrasing but also the storyline, setting, and characters behind the worded novel. Under the idea of the Form-Content Dichotomy, however, these elements are considered to fall within the contents. Ever since the court held in the *Jung-Heidelberg* Case[12] that copyright protection extends to the elements falling under the contents, the Form-Content Dichotomy has been abandoned. The Idea-Expression Dichotomy is adopted in general instead of the Form-Content Dichotomy, however, this does not mean that there is in Germany a rule to prevent copyright protection from extending to ideas.

It is generally acknowledged that *Individualität* may not be found unless there are choices in creating an expression. This requirement is relevant to ideas, and thus it is related to the function to prevent copyright protection from extending to ideas.

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11 Computer Programs Directive, Article 1(2).
12 GRUR 1926, 441 Jung-Heidelberg.

Lastly, the most important point is that a specially high degree of creativity, rather than a standard high degree of creativity, is (was) required for the following five categories:

(1) Written works useful for practical use;[13]
(2) Literary works bearing academic and technical contents;[14]
(3) Works of applied art;[15]
(4) Computer programs;[16] and
(5) Photographic works.[17]

The reason why such an especially high degree of creativity is required is that these categories of works consist of a lot of expressions bound by thoughts, doctrines, and theories and, therefore, easily affording copyright protection to these works would virtually allow copyright protection to extend thereto. In other words, a high hurdle must be set to these kinds of works to prevent copyright protection from extending to ideas.

Surely, copyright protection should not be afforded to expressions bound by ideas. There is another approach to achieve the same objective. The Japanese Copyright Law would deny Creativity and copyright protection only in such elements of expressions as bound by ideas, not a work as a whole. It separates expression by expression in a work to decide whether or not copyright protection may be afforded.

On the other hand, however, the approach of the German Copyright Law is to separate works by categories, and if they fall within these categories and fail in meeting the especially high quality of creativity, it denies copyright protection to the works as a whole.

Function to Prevent Copyright Protection from Extending to Existing Expressions

Let us look at the third function of Creativity, the "function to prevent copyright protection from extending to existing expressions". It seems that the function to prevent copyright protection from extending to existing works is secured by two aspects in the German Copyright Law.

The first aspect is that a work is protected as a derivative work under the German Copyright Law if *Individualität* is found in the newly added

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13 German Copyright Law, Article 2(1), first sentence.
14 German Copyright Law, Article 2(1), first sentence.
15 German Copyright Law, Article 2(1), fourth sentence.
16 German Copyright Law, Article 2(1), first sentence.
17 German Copyright Law, Article 2(1), fifth sentence.

creation, as mentioned above. It is obvious that a work that merely copies existing works does not enjoy copyright protection. In order to be protected as a derivative work, new creation must be added and comply with the high degree of creativity. As a result, the requirement of high degree of creativity accomplishes prevention of copyright protection from extending to existing expressions.

The second aspect is that *Individualität* in terms of a high degree of creativity may not be found in such existing expressions as used in daily lives. As a result, *Individualität* is not found either in the expressions that are the same as or similar to the existing expressions used in daily lives or in the expressions that are the same, in quality, as the existing expression used in daily lives.

As seen above, the function to prevent copyright from extending to existing expressions is secured under the German Copyright Law.

Concept of Creativity under the Japanese Copyright Law

Concept of Creativity

Under the Japanese Copyright Law, a work is defined as "a production in which thoughts or sentiments are expressed in a creative way and which falls within the literary, scientific, artistic or musical domain".[18]

In terms of the above expression "in a creative way", Professor Hiroshi Saito's text, as an example of a predominant theory, reads that "Creativity as a requirement of a work may be simply construed as personality or originality of an author".[19]

Professor Nobuhiro Nakayama, although not taking the position of a predominant theory, explains in his text that "it is generally considered that some of a creator's personality should have been expressed in his work, as a work is a product of an original intellectual creation of a creator, and therefore such expressed personality is considered the core element of creativity".[20] As you can see, the concepts of personality and originality appear in his explanation as well.

It has been said that Creativity is a reflection of personality but, ultimately, originality is taken as the reflection of personality.

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18 Copyright Law, Article 2(1), Item 1.

19 Saito, *Copyright Law*, 3rd Edition (Yuhikaku Publishing, Japan, 2007), at p. 75.

20 Nakayama, *Copyright Law*, 2nd Edition (Yuhikaku Publishing, Japan, 2014), at p. 61.

Let me show you one court case. In the *Smellget* Case, a case on Creativity of a photograph, the Intellectual Property High Court[21] held that "whatever technique was used in taking a photograph, there must be often some kind of originality expressed in the composition, ray of light, background and others even in a still-life or scenic photograph, where the originality is expressed in the expression itself of a photograph as its result and creativity may be found". In other words, the court says that creativity is a reflection of personality, and the reflection of personality is found where there is originality in the expression itself.

This brings to an issue the meaning of "originality". Putting it simply, the originality is understood to be "where there is no reliance on others' works". According to Professor Saito's text, "creativity means something that is created independent of others, or originality. Creativity may be construed as expression created independent of and without relying on others' works".[22] This means creativity is found if a work is created without relying on others' works. Professor Saito says that creativity is not found unless there are choices in creating an expression.

In addition, there are many other rules on the concept of Creativity explained in different theses and court cases. The concept of Creativity is a mixture of multiple rules. There are many rules applied to find Creativity, such as non-reliance on others' works or no choice in expression, and so on. Creativity is finally found in a work that adheres to all of these rules. This may be because the three functions mentioned in the beginning are required for Creativity, and various rules were unconsciously made case by case to achieve these three functions for Creativity without being aware of the three separate functions.

To sum up the concept of Creativity under the Japanese Copyright Law, the following three elements may be acknowledged:

(1) There must be creation of new expression;
(2) There must be choices in creating an expression; and
(3) There must be no reliance on others' works.

Roughly, the concept of Creativity may be summarized into these three elements mentioned above. The first element is relevant to the "function that justifies copyright protection". The second element is required because if there are choices in expressing ideas, the ideas will be prevented from monopolization. This is a rule derived from the function to prevent copyright from extending to ideas. The third element is

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21 Intellectual Property High Court, Judgment on 29 March 2006.
22 Saito, *Copyright Law*, 3rd Edition (Yuhikaku Publishing, Japan, 2007), at p. 75.

required because the function to circumvent extension of copyright to existing works is afforded to Creativity. Next, let us look at the rules for each function under the Japanese Copyright Law.

Function to Justify Copyright Protection

First is the "function to justify copyright protection". Separating it from the other two functions, it is only required to generate new expressions for a function to justify copyright protection in Creativity.

High degree in quality is not required in the concept of Creativity under the Japanese Copyright Law. Creativity is found even in a picture drawn by infants. On the other hand, high degree of creativity in quality is required under the German Copyright Law, where a product as a result of the talent of ordinary persons does not suffice. No high degree of creativity in quality is required under the United States Copyright Act either.

Putting this into Professor Saito's words, "creativity of a work, whether it is or is not of an average, shall not be measured by making the abilities of professionals the standard criteria, and creativity may be argued even on a work created by an infant".[23] He uses the word "average" here, as he is keeping in mind the rule under the German Copyright Law that Creativity is not found unless creation is beyond the average.

Opposing to the predominant theory, Professor Nakayama alleges that "If the purpose of copyright is the enrichment of information, it may be reasonable to construe the concept of creativity in accordance with its purpose as 'scope of choices in expressions' rather than as the personality in 'consequence derived from thoughts or sentiments'."[24] In other words, he suggests that concept of Creativity be taken as an objective matter rather than an author's subjective matter. Where a person expresses a certain thing and there is a possibility of multiple choices in creating the expression, the possibility itself is already the Creativity.

This is to be discussed later, but the "scope of choices in creating an expression" is related to the function to prevent copyright protection from extending to ideas. Therefore, Professor Nakayama's theory considers that creating new expressions itself will suffice as the

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23 Saito, *Copyright Law*, 3rd Edition (Yuhikaku Publishing, Japan, 2007), at p. 76.

24 Nakayama, *Copyright Law*, 2nd Edition (Yuhikaku Publishing, Japan, 2014), at p. 65.

function to justify copyright protection, and high degree of creativity in a work is not required.

Why do they consider that generating new expressions itself suffices the Creativity as the function to justify copyright protection? The "Intellectual Property Theory" may be behind this notion. To answer the question why copyright is acknowledged, the Theory explains the reason that people generate intellectual creation, and therefore they own property rights to such creation like the rights to tangible property, and the copyright system is the legislation thereof.

Function to Prevent Copyright Protection from Extending to Ideas

As mentioned above, there must be choices in creating an expression when finding Creativity. However, just having choices in creating an expression is not enough for the function to prevent copyright from extending to ideas. Having choices in creating an expression is a necessary condition, but this is not a sufficient condition. As a matter of fact, even court cases and the predominant theory apply the rule that, if there are choices in creating an expression, Creativity is denied where a particular choice of an expression is inevitable or commonplace to ideas.

Let me introduce a leading case, the "System Science Case",[25] where Creativity of a computer program is argued. With regard to a certain routine, it says that "since combination of commands is restricted by hardware, it cannot help but become the same combination". It means the combination of commands that is inevitable to ideas, and thus Creativity may not be found. With regard to another routine, it says "extremely common combination of commands is adopted". It means that the combination of commands there is commonplace for ideas and therefore Creativity may not be found.

In the recent "Non-Fiction Novel Case",[26] it states that "Even if there are multiple choices in expressing an idea, if an expression selected is commonplace, creativity may not be found". Let us say there are a hundred choices, for example. The point is whether the choice used in expressing an idea is commonplace or uncommon, and Creativity is decided accordingly. Thus, even if there are a hundred choices, if such a choice as used by the majority of people is used, Creativity is not found.

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25 Judgment of the Tokyo High Court on 20 June 1989.
26 Judgment of the Intellectual Property High Court on 14 July 2010.

This court case directly opposes Professor Nakayama's theory that having choices in expression itself is Creativity.

At a time in the past, there was a theory that an especially high degree of creativity should be required for computer programs in the so-called "Double Standard Approach".[27] The theory intended to follow the "Inkasso-Programm Case"[28] in Germany in order to prevent copyright from extending to ideas. However, the predominant theory and court cases did not change the degree of creativity for computer programs. Rather, by construing that no creativity is found in an inevitable or commonplace expression, it prevents copyright protection from extending to ideas.

Function to Prevent Copyright from Extending to Existing Expressions

Finding Creativity in, and affording copyright protection to, a work created by relying on others' works may result in the situation that copyright protection extends to existing expressions. This is unacceptable.

A work created by relying on an existing work may be protected by copyright if a new expression is added. Then the issue would be whether a new expression added is unconditionally protected. Whether or not copyright protection is afforded becomes an issue relevant to the concept of Creativity.

Getting straight to the point, the criteria to find Creativity here is whether or not a newly added expression is clearly distinguishable at first sight from existing expressions. According to rules under court cases, Creativity to a newly added expression is denied if alteration made is trivial and is not clearly distinguishable at first sight from existing expressions. This is because unless the newly added expression is clearly distinguishable at first sight from existing expressions, copyright substantially extends not only to the newly added expression but also to the existing expressions.

Let me show you two court cases. First is the judgment of the Tokyo High Court on 2 February 1971 for the case "World Map Designed for the Globe". The issue there was whether a new map created for a globe did in fact differ from the existing map in expressions. The court held that "It is obvious at sight that the expression of currents is different

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27 Nakayama, *Copyright Law*, 2nd Edition (Yuhikaku Publishing, Japan, 2014), at p. 63.

28 BGH, GRUR 1985, 1041.

from that in each existing world map". The point here is that the difference must be obvious at sight, and is not that there is any difference. The court further held that "there is an obvious difference between the world map created for this globe and the existing maps for each globe" in the names of the countries and others, and thus creativity is found. This requires differences to be obvious at sight, and not just simply different for finding Creativity.

The other is a recent court case, the judgment of Tokyo District Court on 3 March 2006 for the case "Illustrations and Paintings of Manners of People in Edo Period". The issue there was whether new copyright is justified for a work created by copying an existing work. The court held that:

> "Where differences are found between the copy and the original piece but such differences are not found as a new creative expression of the person who copied it, and therefore, expression there is substantially the same in the original piece and only the creative expression of the original piece can be perceived from the copy, such copy is merely a reproduction, and no creativity is found."

In other words, neither Creativity nor copyrightability is found unless newly added expressions and the differences are perceivable at sight.

Not to change the subject, but we should be aware that the popular word "commonplace expressions" has dual meanings. One meaning is used in relation to an idea. Here, the word "commonplace expressions" means that the expression is used in the way that many of the people would use for the idea. Another meaning is used in relation to existing expressions. Here, the word "commonplace expressions" means the expression is already used by many people in the same or almost the same form.

These are two different things. Suppose a person created a new idea and expressed it. This expression for the idea may be a "commonplace expression" in relation to an idea. However, this expression for the idea may not be a "commonplace expression" in relation to existing expressions, as there have never been expressions to the idea in the first place. These two meanings must be distinguished when making an argument on Creativity.

There is also another cumbersome issue on "commonplace expression" in relation to an existing expression. In the context of the Japanese Copyright Law, whether or not an expression is the "commonplace expression" means whether or not the same expressions already exist.

Whether or not an expression is the "common expression" is also argued under the German Copyright Law, but it does not question if the expression is the same as the existing expressions but rather questions if the expression is the same as the existing expressions in quality.

Accordingly, the word "common expressions" must be argued by distinguishing the meaning of it there. Otherwise, there will be confusion.

Reorganizing of the Concept of Creativity by Functions

Now, how should we design the rules to find Creativity if the concept of Creativity is reorganized by functions?

Function to Justify Copyright Protection

From the viewpoint of the "function to justify copyright protection", creation of a new expression is required, but no high degree of creativity is required under the Japanese Copyright Law or the United States Copyright Act.

While a high degree of creativity is required under the German Copyright Law, neighboring rights are broadly granted to creations that do not manifest a high degree of creativity. This means that the German Copyright Law also acknowledges a necessity of protection whether or not a creation meets a high degree of creativity. Accordingly, there is no need to consider the high degree of creativity here in the discussion.

This means that the function to justify copyright protection is fulfilled whether a work has high or low creativity, so long as new expression is created. Accordingly, the criterion for this function is whether or not a new expression is created, and therefore let us call this the "Creativity Test".

Function to Prevent Copyright Protection from Extending to Ideas

From the viewpoint of the "function to prevent copyright from extending to ideas", no Creativity is found for an expression inevitable to ideas or for a commonplace expression to an idea. This seems uncontroversial.

The issue here is whether the commonness of an expression is taken as a matter of quantity or as a matter of quality. It should not be considered to be a matter of quantity but a matter of quality that an expression is commonplace because an expression should be determined as commonplace when most people use it even if many other expressions potentially exist and can be selected.

Court cases and the predominant theory in Japan adopt the same idea. The "Non-Fiction Novel Case" shown above also argues commonness from the aspect of probability, whether a selected choice would be used out of many other choices. Therefore, the criterion for commonness may be taken as a matter of quality.

Accordingly, in relation to the function of Creativity to prevent copyright protection from extending to ideas, the criterion is whether an expression is inevitable to an idea or is commonplace, and therefore let us call this the "Non-Obviousness Test".

Function to Prevent Copyright Protection from Extending to Existing Expressions

Lastly, from the viewpoint of the "function to prevent copyright protection from extending to existing expressions", the issue of Creativity should be determined by distinguishability as in Japan and the United States or by high degree of creativity as in Germany.

In other words, which is better: to eliminate a category in whole by requiring a high degree of creativity or to deny Creativity by elements of an expression embodied in a work by questioning distinguishability in order to prevent copyright protection from extending to existing expressions? In conclusion, it would be enough to question distinguishability and just deny Creativity by elements of an expression embodied in a work.

The next issue here is who should decide on distinguishability: professionals or ordinary persons? As a matter of course, ordinary persons who represent the demand for works should be the criteria to decide whether works are clearly distinguishable at sight.

Thus, in relation to the function to prevent copyright from extending to existing expressions, the criterion for the function would be whether a new expression is clearly distinguishable at sight by ordinary persons, and therefore let us call this the "Distinguishability Test".

Let me add a little note on what kinds of existing expressions should be compared for distinguishability. There are two types of existing works. One is works created by others and that are not in the public domain, and another one is commonplace expressions that are in the public domain.

In case of the former, distinguishability is determined by comparison with a relevant work of others. In case of the latter, distinguishability is determined by comparison not with every commonplace expression in the society but with the public notion on what is understood as

commonplace expression in the society. Taking housing, for example, there is no point to research all the existing houses and then decide distinguishability by comparison. The approach for this case would be to fix the concept of the expressions falling within the public domain first, and then decide the distinguishability by comparison.

Concept of Creativity Reorganized by Functions

In sum, reorganizing the concept of Creativity by functions, the requirement for Creativity consists of the "Creativity Test" (which requires a creation of new expression) for the function to justify copyright protection, the "Non-Obviousness Test" (which requires the new expression not to be inevitable or commonplace to ideas) for the function to prevent copyright from extending to ideas, and the "Distinguishability Test" (which requires the new expression to be clearly distinguishable at first sight from the existing expressions) for the function to prevent copyright from extending to existing expressions. It is submitted that applying these three Tests would suffice in finding Creativity.

Elements of Expressions in Which Creativity is Found

In relation to the application of the concept of Creativity, let me mention a key point on the issue of where in a work elements of expressions exist and which elements of expressions may be found Creativity.

In a work, there are two kinds of elements of expression: literal elements of expression and non-literal elements of expression. Taking a novel, for example, words or wording are literal elements of expression, and the storyline, setting, and characters shown thereby are non-literal elements of expression. Thus, it constitutes copyright (adaptation right) infringement to use the storyline, setting, and characters in others' work even without using words or wording in the work.

Similarly, in case of a portrait of a person holding a pose, for example, the image itself such as digital data of the portrait falls within literal elements of expression. The composition of the portrait including the pose falls within non-literal elements of expression. Each of the image itself and composition of the portrait may be protected by copyright if they are Creative.

In case of a scenic photograph, on the other hand, an image itself also falls within literal elements of expression. However, the composition

there, which only consists of selection of the viewpoint, does not fall within non-literal elements of expression but just an idea.

Now, let us discuss the Creativity of a scenic photograph, which only consists of literal elements of expression. It satisfies the "Creativity Test" because it creates a new image. Adopting which composition (viewpoint) is an idea. However, even where a photograph is taken from the same viewpoint, taking a photograph at a different time or season would give differences in the color of the sky or the position of the sun and clouds, which gives different outcome in images created. Therefore, the image is neither inevitable nor commonplace to such viewpoint. Thus, it satisfies the "Non-Obviousness Test".

Further, although there may have been a photograph taken already by someone else from the same viewpoint, taking a photograph at a different time or season gives a different outcome in images created, and thus it also satisfies the "Distinguishability Test".

In other words, Creativity is found even in a scenic photograph, and it would be a copyright infringement if such photograph were reproduced (slavish copy). On the other hand, however, it will not constitute copyright infringement even if someone else takes a photograph with the same viewpoint. This is because he is not using the image itself, which is the literal element of expression, but merely using the composition, which is the idea.

Similarly, suppose that one performs a musical work. The performance constitutes literal elements of expression. The non-literal element of expression is a musical work, not the techniques to perform the work. Applying the reorganized concept of Creativity, creativity and copyright protection may also be found in the performance. Therefore, the musical performance may be protected by copyright while it only constitutes infringement of reproduction right, not of adaptation right.

The difference between ordinary works and a performance is that each of the literal elements of expression and non-literal elements of expression may be copied by others in case of a work, while only literal elements of expression may be copied in case of a performance. As there are works which only have literal elements of expression, such as translation or scenic photographs as mentioned above, I do not think there is an essential difference between ordinary works and a performance.

Creativity in AI Works

Issue

As an issue relating to the concept of Creativity, let me talk about "AI Works". Let us call works created by Artificial Intelligence (AI) "AI Works" here.

There are four issues in "AI Works". The first issue is whether AI can technically create "works" which are equivalent to works created by human beings. The second issue is, if AI can create works, whether AI Works are protected by the current copyright law. The third issue is, setting aside the current copyright law, whether works created by AI should be protected by copyright. The fourth issue is how the AI Works should be protected by copyright.

Focusing entirely on key points of Creativity in this article, one can make several observations.

Can AI Make "Works"?

First of all, a question from the aspect of technology is whether AI can make so-called "works".

The picture "new Rembrandt"[29] is created by AI. This is the result of having AI draw the picture by inputting all the data of the pictures drawn by Rembrandt and setting the drawing conditions to "Caucasian man, in his 30s, with facial hair, wearing a hat, and facing right". As you can imagine from the above, AI is technically already at the stage where it can draw pictures equivalent to those created by human beings.

Machine learning is carried out by inputting data into a computer and having it learn the data, but the learning method (as to what should be the point in learning) is taught by human beings. Having a computer learn the method of learning itself is called Deep Learning.

A computer that carries out the Deep Learning learns more wisely (effectively) than human beings. As a result, AI can make works equivalent to those created by ordinary people. Notwithstanding the progress of AI, however, a genius can make a work better than that created by AI. This is because AI is based on Big Data, which is a collection of existing data, and AI merely learns these. At least at the current technical level, AI cannot generate a genius's inspiration.

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29 See http://www.bbc.com/news/technology-35977315.

What is important here is that AI can make what people demand and can satisfy people's demand. This is why protecting such work and encouraging creation becomes an issue.

Are AI Works Protected by Copyright?

Looking at the current legal system whether the AI Works are protected by copyright laws, only the Copyright, Designs and Patent Act of the United Kingdom protects AI Works[30] and provides as follows:

> "In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken."

Therefore, AI Works are already protected by copyright in the United Kingdom.

However, authors are limited to human beings in the current Copyright Right Laws of Japan, the United States, and Germany, and therefore AI Works are not protected thereunder.

Under the current Japanese Copyright Law, the author is defined as "a person who creates a work".[31] On the other hand, it provides for a system of the works made for hire, and authorship of a legal person is acknowledged.[32] Thus, unless a work falls within the works made for hire, "author" means a natural person.

Under the German Copyright Law, a work is defined as "the author's own intellectual creations" as above mentioned, and thus the author is limited to a natural person.

In the US, the provision in the United States Constitution[33] provides for the requirements as "author" and "writings" but the Supreme Court construes a "work" as that ". . . founded in the creative powers of the mind",[34] and therefore the Copyright Office also restricts "authors" to natural persons.[35]

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30 Copyright, Designs and Patent Act of the United Kingdom, Article 9(3).
31 Japanese Copyright Law, Article 2(2), Item 2.
32 Japanese Copyright Law, Article 15.
33 United States Constitution, *The Copyright Clause*, Article I, Section 8(8).
34 *Trade-Mark Cases*, 100 U.S. 82, 94 (1879).
35 U.S. Copyright Office, *Compendium of U.S. Copyright Office Practices*, Chapter 300, Section 306 (3d Ed. 2017).

Should AI Works Be Protected by Copyright?

Setting aside the current law, let us discuss whether the AI Works should be protected by copyright law. The answer differs depending on copyright theories.

The Natural Right Theory justifies copyright under the natural law. In the Natural Right Theory, there are the Intellectual Property Theory and the Personality Theory, and in either case a work may not be protected unless it is made by human beings. However, necessity in affording protection to the AI Works would gradually be recognized even in the countries adopting the Natural Right Theory. In that case, it is expected that AI Works would be protected by neighboring rights, not by copyright.

The Industrial Policy Theory or the Incentive Theory, on the other hand, justifies granting copyright to creation activities of works demanded by people. Therefore, AI Works should be protected by copyright as works from the viewpoint of this Theory.

Whether it be called copyright or neighboring right, accordingly, we may ultimately conclude that AI Works should be protected by certain rights to control the market.

How Should AI Works Be Protected by Copyright?

In the Industrial Policy Theory, there are the "Incentive Theory" and the "Vehicle Theory". Although the Incentive Theory may be a theory that justifies granting copyright to promote creation of works, it is not a theory that can give you an answer to the question of what kind of copyright should be granted.

Readers may have not heard of the Vehicle Theory. The idea of the theory is that copyright is a vehicle to make enjoyment of works into such merchantable commodities that can be bargained for in the markets.

In case of a tangible product, it is a zero-sum relation as A's use of the product physically excludes B's use of the same product. If B wants to use it, he needs to buy or rent it by paying money. However, in case of an intangible creation, such as an intellectual creation, A's use of the creation does not physically exclude B's use of the same creation. If B wants to use it, he does not need to pay money and can make a copy. Thus, in terms of intellectual creations, it would cause a market failure under the natural condition.

For those who want to use a work, the use of a work has a utility value in which he would pay a certain amount of money to use it. A curve generated by aggregating the utility value in the whole market is

the Marginal Utility Curve. In the case of a tangible product, the Marginal Utility Curve constitutes the Demand Curve. However, in the case of an intangible creation such as a work, only the first buyer's marginal utility constitutes a Demand Curve of the market under the natural condition, because a work may be freely copied and used and, accordingly, the Marginal Utility Curve stays estranged from the Demand Curve.

If the Marginal Utility Curve conforms to the Demand Curve, the market provides the best allocation of resources at the intersection of the Supply Curve and the Demand Curve, where all the demanded volume of creations are supplied as much as they are demanded. The Marginal Utility Curve never conforms to the Demand Curve under the natural condition.

Copyright can cause the Demand Curve to conform to the Marginal Utility Curve. By merchandizing exploitation of each work or having works being paid in return for obtaining authorization, copyright functions as a tool to make enjoyment of works into such merchantable commodities that can be bargained for in the markets. The Vehicle Theory is understood as having such function.

The Vehicle Theory can give you a specific and clear answer to how the copyright system should be, or how the copyright should be as an incentive.

First, the right to control the market may be justified as copyright while any other kind of rights may not be. This is because any other right such as compensation or "resale right" would not cause the Demand Curve to conform to the Marginal Utility Curve, or cure the market failure mentioned above. Only the right to control the market can cause that.

Second, the scope of works to be protected is extended to those which would satisfy demand of the public and the creation of which would be promoted by the right to control the market. Accordingly, any work may fall within the scope of copyrightable works whether a human being or AI creates it. AI Works can satisfy demand of the public and the right to control the market can promote the creation thereof. The quantity of AI Works can be increased by increasing the number of AI. The quality of AI Works can be increased by providing AI with better Big Data. As such, it is possible to adjust the supply of AI Works through granting copyright to an operator of AI to meet the demand of the public.

On the other hand, works created by animals may satisfy the demand of the public, but it is not possible to adjust the supply of animal-made works through granting copyright to an owner of animals in order to

meet the demand of the public, as animals incidentally create "works". Thus, the Vehicle Theory does not justify protection of works created by animals.

Third, copyright owners should be the persons who can directly increase supply of works. Usually, this is authors. In case of AI Works, however, there are no authors, but operators of AI can adjust the supply of AI Works in quantity and in quality in order to conform to demand of the public. Therefore, operators of AI should be the copyright owners.

Fourth, the bundle of rights in copyright should consist of all the rights that extend to all kinds of exploitation of a work for enjoying the value of works. In the digital environment, accordingly, the bundle of rights in copyright should include the access right, as simply accessing a work itself may enable enjoyment of the value of the work while it does not accompany reproduction of a work.

On the other hand, the current law allows the right of distribution to extend even to lawfully made copies as well as unlawfully made copies. From the viewpoint of the Vehicle Theory, it cannot be justified that the right of distribution extends to lawfully made copies but it justifies that the right extends only to unlawfully made copies.

Fifth, the Vehicle Theory is able to give a clear answer to justifications for and scope of limitations of rights. Analyzing with the market theory, the market of a copyrighted work fails even the copyright to control the market, where the relevant exploitation of the work is not made to enjoy the value of the work, or where the transaction cost becomes too big to be consummated. In these cases, limitations of rights are justified and necessary.

Sixth, the Vehicle Theory can also answer the question on how long the duration of copyright protection should be. The longer the duration is, the larger the effect it has in promoting creation of works. However, the effect to promote creation of works decreases gradually. For instance, suppose you get USD 10,000 after one hundred years. The current value of the USD 10,000 is probably USD 100, though it may depend on the discount rate. On the other hand, the public may freely use a work without paying consideration after expiration of copyright thereto, and therefore limiting duration of copyright protection has "free use utility". The shorter the protection term is, the bigger the free use utility becomes.

Accordingly, the duration of copyright protection is a matter to be determined by the balance between the effect to promote creation and the effect to remove free use utility. This matter may be figured out by calculation. According to this author's model analysis, it is the best to

limit the duration of copyright protection to a twelve-year term where the discount rate is five per cent per annum.

Conclusion

This author concludes that it is reasonable that Creativity, which is the key concept in the copyright system, should be reorganized by the three functions: the function to justify copyright protection, the function to prevent copyright protection from extending to ideas, and the function to prevent copyright protection from extending to existing expressions.

First, the function to justify copyright protection requires us to question whether or not there is a new creation of expressions (Creativity Test).

Second, the function to prevent copyright protection from extending to ideas requires us to question whether an expression is inevitable or commonplace to ideas (Non-Obviousness Test).

Third, the function to prevent copyright protection from extending to existing works requires us to question whether newly created expressions are clearly distinguishable at sight from existing works (Distinguishability Test).

In order to find Creativity in a work, it is necessary and sufficient to apply only these three Tests.