

## 2 Study on Protection of Image Designs Indicated on the Display Screen

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*In the midst of IT advancement, image designs to be indicated on the display screen such as Graphic User Interfaces (GUI) are considered as interface designs or communication designs, and have become important factors that can increase usability (easily viewable, usable and understandable) for users, just like device designs.*

*Taking the actual conditions of design creation into account, this study investigates and analyzes the possibility of protection of such image designs under the Design Law, Patent Law, Copyright Law and Unfair Competition Prevention Law (including the Trademark Law) in Japan as well as the present situation of protection in Europe and the United States. Furthermore, it considers, from a legislative perspective, how these image designs should be protected in the future, mainly under the Design Law, in accordance with the opinions from domestic and overseas users.*

### I Actual Condition of Creation of Image Designs Indicated on the Display Screen

#### 1 Present Situation of Development of Image Designs

Though having a close relationship with the design of a device itself, an image design is created independently by a different creator from that of the device design. Most companies recognize that GUI designers who create image designs have different technical expertise from that of product designers who create device designs. Image designs created by GUI designers are often applied to multiple products. In other words, image designs are considered as falling under an independent category of designs at the scene of design creation.

In the future, the importance of image designs is expected to increase along with further computerization and IT processing for products, and more image designs will be needed. For example, in the field of home electric appliances, each product will perform more functions and intended uses as a network-based appliance. Accordingly, the interface between devices and users will be more important. Meanwhile, there will come to be more image designers in proportion to the increase of software developers. Although only a few image designs will be needed in the case of a device with a single function, several dozens or hundreds of image designs will be needed if it is developed into an IT device.

An image design used in a product also serves as an important means to differentiate the product from those of other companies and to make clear its characteristics. Furthermore, an image design is not always incorporated into a device, and is often created by a different creator in a different creation process from that of device designs. For these

reasons, image designs should be protected independently from device designs.

#### 2 Designing Artifacts Based on Words

With respect to rights to image designs and protection thereof, designers argue as follows: They create an image design aimed at “supporting human activities”, and such design generates a variety of overlapping values. Therefore, not only the “shape or look, and feel” of the final product are valuable, but also the concept of the created design and “the new activity that users will start up using the design” have significant value.

Consequently, it is not sufficient to evaluate a design based on only its “shape”, and it is important to recognize that “the new activity that users will start up using the design” is the core of the value of the design. As a result, it would be possible to consider protection of a design that has a function of “enabling users to start up a new activity by its use”.

To achieve this, designers will have to indicate the “informative activity” that they create understandably in the same manner as they have described the “shape” of the design to others by using a model or expressing it on drawings. Furthermore, it will be necessary to put more importance than ever on academic research on how to describe the design of such “activity”.

### II History and Actual Condition of Protection of Image Designs in Japan

#### 1 Protection under the Design Law

This section will report the history of protection of image designs under the Design Law and the actual condition of such protection by

indicating specific examples of registered designs.

It was 1986 that image designs started to emerge as a problem in operation of the Design Law and countermeasures were taken for the first time. At that time, the “Examination Guidelines on Figures Indicated in an Indication Area of an Article (*Buppin no Hyoujibu ni hyouji sareru Zukei tou ni kansuru Shinsa-Kijun*)” and the “Examination Guidelines for Design concerning Pixels of Liquid Crystal Display Panels (*Ekishou-Hyoujiban no Gaso ni kansuru Ishou no Shinsa-Kiju*)” were published. Later, the “Guidelines on the Written Description in the Request for Design Registration and Drawings Attached Thereto (basic)”, the “Guidelines on Liquid Crystal Display, etc.” and the “Guidelines on Liquid Crystal Display, etc. (Partial design applicable version)”<sup>(\*)</sup> were published in 1991, 1993 and 2002 respectively.

Protection of image designs was studied by the Institute of Intellectual Property (IIP) in FY 1994 under the theme of “Subjects to be protected independently from articles (focusing on icons)”<sup>(\*)</sup>. In this study, icons were defined as “pictographic characters indicated on the personal computer or the display screen in the form of pictures that express operating instructions”, and how to legally protect icons under the Design Law, Copyright Law and Unfair Competition Prevention Law was considered. As a result, the conclusion was drawn that “it is undesirable to grant absolutely exclusive rights for icons without careful consideration”. The report was generally negative with regard to protection of icons based on absolutely exclusive rights.

There were further discussions about this issue at the JPO Round Table on the Design System<sup>(\*)</sup>, the Institute of Intellectual Property in FY 1995<sup>(\*)</sup>, and the Ad Hoc Committee on the Design System at the Japan Design Protection Association (JDPA) in FY 1996.<sup>(\*)</sup> In FY 1998, the design protection system was amended to introduce the partial design registration system.

The report prepared by the JDPA in April 2001<sup>(\*)</sup> addressed image designs for the first time after the introduction of the partial design registration system. However, it only posed problems on needs

for protection of image designs and proper protection thereof.

As shown in specific examples of designs registered in Japan<sup>(\*)</sup>, it has become possible to protect image designs to some degree as a type of partial designs.

The problem areas in the protection of image designs under the Japanese Design Law stem from the history of protection of designs: the requirements that a design must be applied to an article and that a design must have a fixed form. Therefore, in order to protect the substantial value of image designs that are included in a new value system, it seems essentially necessary to establish a framework of protection based on a new concept, independent from the relationship between designs and the articles to which designs are applied and the restrictions that are imposed by such relationship.

As an alternative means, reconfirming or reconsidering the relationship between an article to which a design is applied and its form in accordance with the interpretation of articles is also proposed. Under the existing law, there is a category of articles that are abstractly and conceptually recognized and fail to comply with the relationship in which an article is indicated by its shape. In this regard, if a design can be recognized as a partial design that is applied to an article such as “a display device for XX” or “a display panel for YY”, it will not always be necessary to indicate the shape of the article as a whole and it will be possible even under the existing law to protect an image design that is less relevant to the article to which it is applied.

## 2 Difference in Protection of Image Designs between Japan and the United States

In the United States, a design of an icon was registered as a design patent for the first time in 1988. After the temporary interruption in the trend to protect icons due to an appeal board decision made in 1992 that the application for design patent for an icon was to be refused, the United States Patent and Trademark Office (USPTO) published guidelines on protection of icons in 1996 and a wide

(\*) “Ishou Touroku Shutsugann no Gasnsho Oyobi Zumen no Kisai ni kansuru guideliles - kihon hen- ekishou hyouji tou ni kansuru guidelines [Bubun Ishou Taiouban]” (Japan Patent Office, 2002).

(\*) Institute of Intellectual Property, “Ishou ni kakaru Buppin to Ishou Hogo no Arikata ni kansuru Chousa Kenkyu Houkokusho (*Report of Research and Study on an Article to Which the Design Is Applied and Proper Protection of Designs*)” (IIP, 1995)

(\*) Report of the JPO Round Table on the Design System “Miryoku aru Ishou Seido no Kakuritsu e mukete (*Aiming at Establishing an Attractive Design System*)” (Japan Patent Office, August 22, 1995)

(\*) “Design Katsudou no Jittai ni gachisita Ishou Seido no Arikata ni kansuru Chousa Kenkyu Houkokusho (*Report of Research and Study on Proper Protection of Designs Suitable for the Actual Condition of Designing Activities*)” (Institute of Intellectual Property, 1996)

(\*) “Kokusaika Jidai ni taiousita souzouteki Design no Hogo Kyouka Houkokusho (*Report on Reinforcement of Protection of Creative Designs Suitable for the Age of Globalization*)” (The Japan Design Protection Association, 1997)

(\*) “Sousagamen Design no Bubun Ishou Hogo ni kansuru Chousa Kenkyu Houkokusho (*Report of Research and Study on Protection of Designs for Operating Display under the Part-Design System*)” (The Japan Design Protection Association, 2001)

range of image designs have been registered as design patents since then.

There seems to be difference between the “Guidelines on Liquid Crystal Display, etc.” in Japan and the practices in the United States with respect to the following points.

① In the examination in Japan, a figure that is to be indicated on the display part of an article such as a liquid crystal panel is required to be indispensable for the constitution of the article. For example, in the case of an article that has a variety of display functions, e.g. a mobile phone, at least the summary page (initial menu page) that integrates individual functional pages may satisfy the requirement of indispensability, but whether other pages following the summary page are “indispensable” is not clear. In the United States, on the other hand, the registration of an icon is determined in consideration of whether it is embodied in an article. In this case, whether a figure indicated on an article is indispensable for constituting the article or performing the intended use of the article is not considered. Consequently, the scope of protection is not limited to the initial menu page.

② In the examination in Japan, a figure that is to be indicated on the display part of an article such as a liquid crystal panel is required to be indicated by the (display) function of the article itself without being controlled by external signals from outside the article. In the case of a page that is indicated through an operation other than simple operations performed by the user, it is not clear whether protection is provided for such page. In the United States, on the other hand, protection is provided for an icon, irrespective of whether or not it is indicated by functions of the article itself (e.g. a monitor or display).

③ In the examination in Japan, if a figure that is to be indicated on the display part of an article varies, the appearance of the variation is required to be specified. In order for an indicated figure to be recognized as a component of a design, there should be relevance between the appearances of the figure before and after the variation. In the United States, on the other hand, there is no such provision; however, there is a general requirement for the registration of design patent that, where a single application is filed for multiple forms of embodiments, all these forms of embodiments should be included in the same creative idea. Therefore, it is not clear whether it is possible to file a single application for images that change from one to another in completely different shapes.

The above comparisons indicate the difference in the requirement concerning “an article” between the guidelines in Japan and those in the United States.

### **3 Protection under the Patent Law**

Even in the framework under the Japanese Patent law, it is possible to “indirectly” protect creations of image designs by focusing on their functional and technical aspects and considering them as software-related inventions.

Where a patent right has been granted for a software application for materializing a particular functional aspect that is to be indicated on the display screen, the effect of the patent right may extend to a wide range of software applications for displaying other page designs that satisfy the requirements for constituting the patented inventions, irrespective of the difference in designs in terms of those details. Therefore, “indirect” protection of image designs under the Patent Law does not necessarily mean that only weak protection can be obtained. Nevertheless, it is needless to say that no matter how excellent the page design is from the design aspect, it is not expected to be protected under the Patent Law if it is conventional and common from the functional and technical aspects. In addition, under the existing Patent Law, still there is room to discuss whether a patent right may be obtained by claiming the image design itself. Protection of image designs under the existing law in Japan is insufficient in some aspects with respect to the scope of effect of a patent right for such design, compared with the United States where a GUI itself may be claimed.

In summary, as long as protection is premised upon the existing Patent Law, image designs will basically be protected from the functional and technical aspects and it will therefore be difficult to protect them squarely from the design aspect.

There are other issues to be considered in the future concerning protection of creations related to image designs under the Patent Law. They are as follows: whether a creation that will bring any action or effect by influencing the sensibilities of a human being via a design indicated on the display screen may be construed as satisfying the requirement of “utilizing a law of nature” under the Patent Law, and if it may be so construed, whether legislative measures are required. These issues will lead to a larger issue to be considered: whether it is necessary to recognize a clear change in the very concept of “invention” under the Patent Law, or in other words, the scope of protection of information property under the Patent Law.

Another issue to be considered in the future is how to maintain balance with the scope of protection under the Design Law in accordance with such change in the scope of protection under the Patent Law. We should consider in the future how we should segment between the area of “aesthetic impression on the sense of sight” under the existing Design Law and the area protected under the Patent Law, or whether it is necessary to amend the Design Law itself.

#### 4 Protection under the Copyright Law

Generally, image designs may be evaluated as creative expressions of ideas in the art or academic field, and they are never excluded from the scope of works. In some cases, not only image designs themselves but also the whole aggregation thereof including the hierarchy (sequence, relevance) are recognized as works (decision of Tokyo District Court on June 13, 2001, *Hanrei Jiho*, No. 1761, P. 131 [Cybozu case]). Furthermore, a program that is expressed as a combination of commands for displaying image designs on the liquid crystal display part through operating a computer is separately protected as a work under the Copyright Law.

It cannot be denied that the creation of an image design has a smaller portion of creative expression than an artistic work, due to the restriction that the image design has to be functional. On the other hand, it is generally considered that in order for a work to be copyrighted, the work is only required to be creative to the degree that the personality or originality of its author is displayed therein, and it is not required to be objectively novel or involve inventive steps (i.e. not easy to create) as inventions, devices (utility models) and designs are required under relevant laws. A copyright is also advantageous in that it can be quickly exercised because a copyright may be obtained without examination or registration when a creation satisfying the requirements for a work copyrighted is completed. Conversely, it is undeniable that there are the following defects in the copyright system. The owner of a copyright would hesitate to exercise his/her right against products other than those considered as dead copies clearly infringing the copyright, or the owner would have less opportunities to settle disputes before instituting lawsuits between parties concerned, because ① allegedly infringing products must be based on the original work, and ② compared with registered designs and other industrial property rights that are granted after examination, it is not easy to define in advance the scope of protection under copyright or to judge in advance the possibility of infringement. Furthermore, even when a copyright is attributed to a person other than the author, the moral right still belongs to the author. In this case, the use of the work would be restricted because it is necessary to deal with the moral right in addition to the copyright.

With respect to expressions as creations, the boundary between protection under the Copyright Law and protection under the Design Law is not clearly defined. The Copyright Law provides that “artistic works” include fine arts and crafts. The purpose of this provision seems to limit the scope

of protection to unique individually-created works. However, judicial precedents show a strong tendency to provide protection under copyright to expressions as industrially applicable creations, as long as they are considered as being artistic and evaluated as works. In connection with the Copyright Law, the requirement of being industrially applicable means that works such as pure fine arts, which are created not for the purpose of repeatedly producing the same art on a massive scale but with the essential aim of creating one individual work, shall not be protected under the Design Law. This requirement is not considered as a ground for excluding the expressions as creations that are to be protected under the Design Law from the scope of works under the Copyright Law. Thus, it is difficult to establish criteria that can clearly segment the applicable areas of both laws: these laws overlap in some areas.

#### 5 Protection under the Unfair Competition Prevention Law and the Trademark Law

In applying the provisions of the Unfair Competition Prevention Law for preventing confusion and for protecting famous indications to an image design, there are various problems to be considered such as whether the image design can be considered as “an indication of goods or other indication”, whether it can be recognized to serve as a “designator of the origin” and whether it is “famous”. Basically, an image design itself does not have the function of designating the origin of goods or business. Whether an image design itself can be considered as goods, i.e. property that can be independently traded, also becomes a problem.

Though there is no judicial precedent that addressed the above issues about image designs, we can use precedents on games and typefaces as well as a number of precedents on accounting receipts as informative examples. In light of these precedents, image designs may not be so frequently deemed to acquire the function of a source designator of the origin because they are not originally applied as a designator of the origin. However, some image designs may be deemed to serve as designators of the origin, if they are recognized so by consumers based on the uniqueness of their forms and the history of actual use.

Furthermore, where an image design itself or the intangible software to which the design is applied is independently traded, the design or the software, including image designs for general purposes, may be recognized as goods.

On the other hand, it would seem extremely limited that image designs originally not aiming at serving as a designator of the origin are protected under the provision for protecting famous indications.

In addition to the above provisions, the Unfair Competition Prevention Law has the provision for prohibiting imitation of the configuration of goods. The main point of issue regarding the protection of image designs under that provision is also whether an image design is deemed to be a configuration of goods. As an image design is itself visible, it seems to satisfy the requirement of being a configuration. However, there are pros and cons to the possibility to recognize an image design itself as goods. Theoretically, it is possible to evaluate an image design as a configuration of goods. Nevertheless, some functional image designs such as operation pages and icons may not be protected on the grounds that they are considered as “common configurations” of goods from the perspective of standardization.

The Trademark Law intends to protect designator of the origin, as does the Unfair Competition Prevention Law. Therefore, we should consider whether it is possible to protect image designs, which are not originally created as designator of the origin, under the Trademark Law. With respect to some image designs such as icons that have the function of communicating information, even if trademark registration is obtained, it would be difficult to exercise the trademark right.

### III Demand and Necessity for Protection

#### 1 Japan Intellectual Property Association

The Japan Intellectual Property Association (JIPA) provided the following comments based on the results of discussion at its Design Committee.

Along with the advancement of information technology (IT), companies have been focusing their efforts on hardware/software development and development of image designs to be indicated on display screen. Image designs created by investing a lot of financial and human resources into their development should be property protected as products that have proprietary value.

An image design has the following three properties.

① It is applicable for a “general purpose”, irrespective of the external shape of the device, the type of device and the method for providing it.

② It embodies its own use, function and shape only when “operation through electric conduction” is performed.

③ It needs multiple, different images that form a hierarchical structure in order to perform its use or function.

In protecting image designs that have the above properties under the existing Design Law, we would face the following problems or limits of

protection.

① Under the Design Law, “article” and “design” are inseparably incorporated. In contrast, an image design generally has a “general purpose” that is not limited to an article.

② It is difficult to obtain prior art information for image designs because the shape of an image design is embodied only when “operation thorough electric conduction” is performed. Furthermore, the Design Law has yet to introduce a system of laying-open unexamined applications.

③ Since the Design Law requires “one application for one design”, there is a limit to the “method for filing an application” in properly protecting a “hierarchical structure” and “movable design” of an image design.

④ The criteria for judgment in examination or the like have yet to sufficiently be developed to maintain balance between “protection of icons” and “public interests” including standardization.

According to the above results of discussion, the existing Design Law has its limits in protecting the substance of an image design under an effective right. Further measures including legal amendment for expansion of protection should be considered.

#### 2 Japan Electronics and Information Technology Industries Association (JEITA)

Whether an image design is to be protected under the existing Design Law depends on whether it is subject to the “restriction of being applied to an article” or whether it goes beyond the restriction. There are two options for providing protection beyond the “restriction” under the Design Law: additionally including “a screen” in the scope of “articles to which a design is applied” or abolishing the requirement that a design must be applied to an article. This section will present questions about the clearer option: abolishment of the requirement that a design must be applied to an article.

① “The requirement that a design must be applied to an article” has affect the basis of the design protection system. Wouldn't its abolishment go against the spirit of the legislation of the Design Law for industrial development?

② Wouldn't its abolishment lead to the collapse of the traditional system under the Design Law in return for protection of image design?

③ If the requirement is abolished, what would be the difference between design registration and copyright?

④ Would it be appropriate to grant an absolutely exclusive right to an image design?

⑤ Would it be possible for the JPO to examine image designs? There might be problems in collecting prior art for examination because more image designs would be found in actual products than in publications.

- ⑥ Would it be possible for companies to conduct search for rights on image designs in advance?
- ⑦ How could registrations for moving image designs be published?
- ⑧ In the case of infringement, which would be subject to the enforcement of right, the manufacturer of the product or the creator of the image design?
- ⑨ How could balance be maintained between the monopoly of icons and the standardization?

Considering that, as mentioned above, it is difficult to examine image designs under the existing Design Law, introducing a non-substantive examination registration system would be another potential measure. However, there would be the following questions in such a system.

- ① How could the difference be handled between a right granted for a design without examination and a copyright?
- ② Wouldn't the non-substantive system be unsuitable for Japanese companies? Since the amendment of the Utility Model Law to introduce the non-substantive examination system, the number of utility model applications has been decreasing.
- ③ Wouldn't it increase unnecessary lawsuits and cause abuse of rights?

In order to protect image designs that will become more important in the future, it is desired to resolve these problems and protect them in a balanced manner. To this end, it is necessary to introduce a legal system to protect designs that are very creative and worth protecting rather than protect image designs as exceptional designs.

### 3 Japan Patent Attorneys Association

The Japan Patent Attorneys Association (JPAA) has pointed out (1) the necessity to protect image designs from the perspective of international harmonization, and (2) various issues that would be the basis of considering the necessity and the ideal form of protection of image designs, which were discussed at the Design Committee of the JPAA.

(1) With respect to the requirement that a design must be applied to an article in connection with image designs such as icons, whereas icons themselves are recognized as products and registrable in some countries such as Portugal, in other countries such as the United States, icons that are not indicated on the computer display screen are deemed to be mere surface ornaments and unregistrable on the ground that they are not applied to articles.

As for the scope of registrable designs, in some countries such as the United States, not only individual icons that are indicated on the computer display screen but also the total design indicated on

the entire display screen are registrable. On the other hand, in countries that comply with Design Directive<sup>(\*)</sup> 98/71/EC, individual icons may be registrable, but it is unclear whether the total design indicated on the entire computer screen is registrable. It is also unclear whether it is possible under the U.S. design patent system to effectively protect an image design having multiple pages in a hierarchical structure as such, and there is no example of registration of such design in other countries. Thus, no country seems to clearly protect image designs that have a hierarchical structure under the design protection system.

As mentioned above, there is no uniformity in the international situation concerning protection of image designs at the present stage. Therefore, this does not lead to the conclusion that the necessity of international harmonization has arisen.

(2) To date, the First Section of the Design Committee of the JPAA has yet to draw a final conclusion on this issue. In the process of discussion, it was proposed as an idea, according to the analysis of the characteristics of image designs for GUI, to establish a framework of protection in the form of a deposit system that will not require substantive examination. This proposal was based on the following considerations; in the case of protection of an image design under copyright, it is unclear which portion of the image design is covered by the copyright and this would be an obstacle for development of designs; on the other hand, in response to the needs for a system to clearly make a public notice on the existence of right for image designs, it may be an option to protect them under the existing Design Law. However, considering that there are too many restrictions under the current law, it would rather be desirable to establish a new protection system.

The JPAA further commented on the following points.

- ① Though members of the Design Committee failed to present a wide range of realistic demands for protection of image designs, needs for such protection will surely increase in the future.
- ② The variety of image designs is extremely wide.
- ③ There is no physical restriction in creating image designs unlike the case of tangible designs.
- ④ It is necessary to consider what is to be protected in an image design, the expression, the configuration based on its use or function, or the combination of an idea and its expression, which is a new category.
- ⑤ It is also necessary to consider whether to seek protection under the existing Design Law or to realize design protection that are suitable for the 21st century through entire amendments of the Design Law.

(\*) Directive 98/71/EC of the European Parliament and of the Council of 13 October 1998 on the legal protection of designs.

## IV Results of Investigations in Japan and Abroad

### 1 Interview Investigation in Japan

An interview investigation was carried out targeting a total of nine companies including five software houses including a company which had experience of litigation and four applicants for U.S. design patent registration.

① Cases that their image designs were imitated or counterfeited: 6 companies responded that there was no such case or they had no knowledge of such case or they had never conducted investigation on this matter.

② Creator of image designs: It depends on what they intend to create; Average time for creation: three months; Average cost for creation: ¥2-3 million per person per month.

③ Number of in-house designers: Software houses more frequently uses their own designers.

④ Necessity to protect image designs: In general terms, they thought that image designs should be protected because they invested a lot of time and money into them. However, they have yet to consider this matter specifically.

⑤ Subject to be protected: An image design to be protected under the existing law and the image design itself independent from the article.

⑥ Special efforts that they are making to protect image designs: Most companies were making no special effort.

⑦ Reason for filing U.S. design patent applications: Most companies had filed U.S. application in order to learn what kind of image designs would be registered.

⑧ Possible enforcement: Most companies had never imagined such cases specifically.

⑨ Claiming priority right based on Japanese application: They use drawings in original Japanese patent application.

⑩ Relation between design patents and ordinary patents: Applications for design patent were exceptionally filed, and only one company keeps filing design patent applications.

⑪ Knowledge of U.S. design patent: Almost all companies know that image design is registrable as design patent in the United States, but they do not know the scope of design patent.

⑫ Knowledge of designs registration in Japan: They know designs registration for e.g. mobile phone.

⑬ Gap between examples of U.S. design patent and Japanese design registrations: Most companies had never felt much inconvenience.

⑭ Direction in which image design will change in the future: Combination of shape, color, movement, and sound will provide more usability in user interfaces.

⑮ Types and scope of image designs that can be

legally protected: Most companies are not sure.

⑯ How image designs should be legally protected in the future: A new system for protection will be needed, for example, a system similar to the copyright system in which a work as a whole is registrable and can be used for consideration.

### 2 Entrusted Survey in the United States (Legal Aspect)

The summary of the report of the survey on the "Present Situation of Protection of Image Designs in the United States" entrusted to Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. is as follows.

In general, design patents provide inexpensive and effective protection for computer icon designs. The USPTO now routinely issues design patents for computer icons. Procedurally, it should be easy to obtain design patent protection for computer icons, if the as-filed application includes a claim, a title, and drawings that describe or depict the design on an article of manufacture, such as an icon or image on a computer screen or display panel.

While their research did not find any reported cases that involved the litigation of a design patent for a computer icon, a design patent on a computer icon is an important defensive tool in protecting such intellectual property. A design patent excludes others from making, using, selling, or offering to sell the claimed subject matter of the design patent and variations of the claimed design that would be confused with the claimed design. If infringement could be proved, an injunction preventing further use, as well as money damages, are available.

### 3 Entrusted Survey in the United States (Design Aspect)

The survey entrusted to Aaron Marcus and Associates, Inc. (AM+M) was carried out to explore the opinions of the design community about the value, process, and future of user-interface design patents. This survey investigated opinions of designers and companies in the United States, focusing on the following matters: specific examples of image designs and the actual condition of creation thereof; needs for protection of image designs and reasons for such needs; experience of suffering infringements; effectiveness of protection under design patents; efforts taken for protection of image designs; evaluation of protection under design patent and other intellectual property laws.

The results of this survey point to the need for informing the design community further about intellectual property protection and debating carefully some key issues again that were discussed five or ten years ago, when desktop

WIMPs<sup>(\*9)</sup> ruled and the Web/mobile devices were in their respective infancies.

The results of this survey also point to significant challenges to the established concepts, terminology, documents, and processes of current design patent protection as user-interface design continues its inexorable advance toward new and more comprehensive attributes that may not be as easily describable or protectable in established intellectual property protections as past artifacts.

#### **4 Entrusted Survey in Europe (Legal Aspect)**

In the survey entrusted to Dr. Annette Kur of the Max Planck Institute for Intellectual Property, Competition and Tax Law, a questionnaire was sent to patent offices in all EU Member States and the response from Germany, Portugal, Sweden and Austria as well as the report on the situation in the United Kingdom were obtained. Portugal and Germany also provided specific examples of registration.

The topic to be investigated in this survey has until now played a rather marginal role in European literature and case law. It seems that at least for the time being, there is little demand in practice for design protection of individual elements of GUI of computer programs, in particular icons. Only very few decisions of at least indirect relevance in the field can be found. Furthermore, the question does not seem to have given rise to problems and debates in the framework of the registration procedure, or to have resulted in the promulgation of specific rules or guidelines.

This impression has been confirmed to a certain extent in the second stage of this survey, when an attempt was undertaken to investigate the current practice of patent offices in Europe with regard to the registration of computer icons and other similar items. The questionnaire which was sent out to all European offices did not evoke much response, and it was expressly stated in the answer from the German Patent Office that design protection of icons is an “undeveloped area”.

#### **5 Entrusted Survey in Europe (Design Aspect)**

The survey entrusted to the International Institute for Information Design (IIID) sought opinions from designers and companies that are involved in image designs in Europe.

The carried-out investigation made it clear that the legal protection of image designs is a most relevant and complex subject indeed. Even those designers who sell “work for hire”, thus transferring all their rights together with the

ownership of their designs to their clients, realize that they should review their position.

The low level of knowledge of legal design protection coincides with the outcome of a recent inquiry of an electronic newsletter of The International Council of Graphic Design Associations (Icograda)(eNews), issue 48/01 of 9 December 2001 of which reports the results of an opinion poll on the question “Should you come across your idea and/or concept being plagiarized, how would you react to that?”. The answers of the readers of Icograda eNews:

- Approach that designer and deal with it personally: 33%
- Seek legal advice: 28%
- Ignore it: 30%

The responses seem to illustrate what was reported in another Icograda eNews issue (3/02 of 20 January 2002). The respective question was: “How well does the legal system in your country protect your authorship rights?”

The answers:

- Quite well: 13%
- It works sometimes: 8%
- It doesn't really work in practice: 79%.

Improved protection requires a better understanding of the features and criteria which determine the value of image designs. Better understanding will result in more adequate definitions and more appropriate tools to distinguish original designs from imitations.

Some of the opinions uttered and suggestions made are listed in this report. They relate to the idea of information design as an emerging discipline which brings together information technology, copywriting, testing and marketing skills in support of design solutions which the information designer is expected to create.

Most of the mentioned skills are beyond the focus of the given investigation, but two of them, design and programming, have been indicated of prime importance with regard to foreseeable developments in graphic user interface design. Their convergence might be of deciding relevance to further considerations. Similarly, the value designers adhere to “function” in comparison with “look” shows that the traditional thinking, that the result of a creative process can be categorized either as “design” or “function”, cannot be maintained in the future. A new approach is needed with regard to image designs which are both uniquely shaped and functional.

Moreover, the concept that a display screen as a medium for representing image designs should govern new thinking concerning the legal protection of such image designs has to be reviewed. With regard to the possibility to project image designs straight onto the retina it might

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(\*9) Window/Icon/Menu/Pointing device

prove not being more relevant than regulations which relate to the reproduction of image designs on paper.

From the suggestions which point to new directions the following might justify ingoing considerations:

① Classes of designs with regard to complexity:  
– innovative “generic” designs (which stand out because their function and their visual presentation are inseparable) like interactive diagrams.  
– “concepts” of designs and design systems which must build on shared conventions like much of public information design.

– image designs which visually represent a general reference or function in a much more appropriate way (possibly with the support of sound) than envisaged before, e.g. an innovative toolbar or an icon to indicate a basic function of a software program.

– classes of designs with regard to function.  
– image designs which qualify for legal protection but are offered for free use by their designers (like freeware).

② Claiming authorship:

– explicit warnings.  
– electronic fingerprints / digital watermarks / implemented heritage proofs and data stamps.  
– collecting royalties from those who copy image designs for use other than intended by the author.  
– categories of image designs which may be dealt with like image designs reproduced in print and therefore need no special precautions.

③ “Use” aspects of legal instruments and their cost/effect ratio:

– cost of filing a patent  
e.g. the planned revision of the European Community Patent Convention might require that all patents are translated into every EU language, thus making it unlikely to be used even if introduced.

– time from application to approval

Dr. Elisabeth Vlasaty (Vienna), an expert lawyer who was asked for comments on the outcome of the investigation: “If designers think that patent law is very ok they might not be aware of the fact that filing a patent under the already existing European Patent Convention on average takes 4 years”.

– Internet Service to evaluate and claim the protection of image designs

Building on this survey to get insights into the process of image design creation and how image designs serve various purposes in electronic visual communication tasks it became clear that the development of the new information and network society leads up to new challenges information designers must cope with. In doing so corresponding measures must be taken to secure

the legal protection of the resulting unique looks and functions of innovative designs.

## V Proper Protection under the Design Law

### 1 Scope of Protection of Image Designs under the Partial Design Registration System

With respect to the needs for (1) protection of image designs with movable element and (2) protection of image designs without restriction of article, the committee for this study discussed whether these needs would be satisfied under the existing Design Law, taking the registered design No. 1075910 concerning a mobile phone as an example and considering the scope of protection of partial design in the following cases:

① Where the shape of the portions indicated by the broken lines in the drawings for the registered design is completely altered;

② Where the registered image design is placed in a different position;

③ Where the same image design is used for a refrigerator;

④ Where the same image design is used for a telephone that is attached to a refrigerator;

⑤ Where the same image design is used for a “computer with a display screen”, which is a general-purpose computer equipped with the telephone function;

⑥ Where the data of the registered image design is distributed and downloaded via the Internet to a mobile phone which is not pre-installed with such image data;

⑦ Where an element of the registered image design is movable;

⑧ Where design registration is obtained for the image design with the movable element mentioned in Case ⑦.

Whether the image design is protected in these cases was analyzed, in light of how to deal with (a) a partial design that makes creative contribution by the part itself such as a component and (b) a partial design that makes creative contribution in the arrangement (layout), as well as in accordance with the “Guidelines on Liquid Crystal Display, etc. (Partial design applicable version)”<sup>(\*10)</sup>. Whether image designs can be protected largely depends on the determination of similarity of designs. In this respect, there is a limit to protection due to the restriction of an article applied.

In Europe, the system for right to the unregistered community design came into force on March 6, 2002 in accordance with the Community

(\*10) Guidelines in supra note 1.

Design Regulation<sup>(\*11)</sup>, and acceptance of applications for right to registered community design will start in January 2003. The U.K. Design Law was also amended in accordance with the European Design Directive<sup>(\*12)</sup> and the amendment was put into force on December 9, 2001. These amendments introduced protection of graphic symbols including icons.

According to the above results of consideration, the following points should be noted in amending the Japanese Design Law:

- ① It is desirable in Japan to protect image designs under the Design Law as they are protected in Europe and the United States;
- ② In order to properly protect image designs without being restricted by the requirement that a design must be applied to an article, it is recommended to introduce the concept of "product" that is found in the Community Design Regulation;
- ③ Consistency between the requirements for registration and the scope of protection is desired;
- ④ The substantive examination system should be maintained and the introduction of the post grant opposition system is desired;
- ⑤ Measures are required to enhance protection of image design with movable element;
- ⑥ Adjustment with the Copyright Law is needed;
- ⑦ The Unfair Competition Prevention Law should be improved to protect image designs for a short term, e.g. three years, in order to share the protection with the Design Law.

## **2 Protection of Image Designs - Interpretation and Legislative Proposals -**

The scopes and limits of protection of image designs under the Patent Law, Copyright Law, Unfair Competition Prevention Law, Civil Code and existing Design Law are different, respectively.

According to the analysis of the possibility and limit of expansion of the scope of protection through interpretation of the existing Design Law, it is possible to protect general-purpose image designs as well as image designs with movable element under the existing law by amending the classification of articles and guidelines. However, the existing law still has its limits in providing effective protection because it is unclear whether the use of an image design is construed as the "working of a design" in proving the existence of a direct or indirect infringement.

In this respect, image designs may be protected based on unjustified interpretation of the Design Law amended in the above manner.

Here, the following tentative proposal for further amendments to protect image designs will

be examined.

The substance of image design, especially GUI, is instructions for the user to transmit particular information to the computer that is expressed in the form of image, and an image design may be recognized to have original creativity in the expression itself. In this respect, creation of an image design shall be naturally distinguished from creation of technical ideas protected under the Patent Law. Even if an image design with a functional element, which is suitable for protection as creation of a technical idea, shall be protected under the Patent Law, such protection would not completely secure the protection of the expression, which is the substance of the image design.

On the other hand, an image design that has original creativity in its expression as such is included in the scope of protection under the Copyright Law, a law to protect creative expressions. In other words, not only individual images but also the whole aggregation thereof including the hierarchy (sequence, relevance) may be protected under the Copyright Law as a work or a program work that is expressed in the form of a combination of commands to indicate image designs on a display screen through operation of the computer. Therefore, it is difficult to clearly define the boundary of the scopes of protection between the Copyright Law and the Design Law.

Applied arts that are designed for practical uses are often regarded being required to have high-level artistic creativity to be protected under copyright. Based on such view, image designs would rather be properly protected if they were protected under the Design Law.

According to the amendment of the Patent Law and the Trademark Law in 2002, information property such as downloadable computer programs have come to be included in the scope of protection under both laws. Therefore, it is anticipated that the provisions of the Unfair Competition Prevention Law for protecting goods or other indications and the configuration of goods will also protect goods or other indications not only as tangible property but also as intangible information property. Since an image design can be traded as information property and the image thereof has a visible configuration, legal amendment should be made to clearly present the interpretation that an image design may be protected as the configuration of goods under the Unfair Competition Prevention Law. For example, it is recommended as the amendment of the law to clearly stipulate that image designs, especially GUIs, are included in the scope of configuration of goods, and to revise as "the provision via telecommunication lines shall be included" within the act of assigning and leasing as well as to revise the term "the date

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(\*11) Council Regulation (EC) No. 6/2002 of 12 December 2001 on Community designs.

(\*12) Directive in supra note 8.

selling thereof first commenced” into “the earlier of either the date selling thereof first commenced or the date provision thereof first commenced via telecommunication lines”.

Such amendment would provide prompt protection against imitations of image designs. In this case, an image design would be protected only for a short term and against identical or substantially identical design, not against similar designs. Nevertheless, such protection would be more proper for image designs with short lifecycles because there is no inevitable time constraint for the examination. In order to meet the need for protection for a longer term, it would be sufficient to leave measure to obtain a right to registered design through an application for registration of design.

Assuming that image designs may be protected under laws other than the Design Law, it would be a question whether it is necessary or reasonable to protect them under the Design Law. Some may argue that the requirement that a design must be incorporated into an article is the substance of the design registration system and therefore should be maintained.

However, as further advancement of IT is currently believed to be certain, we should rather consider whether it is necessary or reasonable to continue to place image designs, which are valuable information property, under the restraint that a design must be applied to an article.

Despite lack of shape of an article, an image design is equipped with elements to constitute a design, “a shape, pattern or color or any combination thereof ..... which produces an aesthetic impression on the sense of sight” to be applied to an article. If the restraint under the existing Design Law that a design must be applied to an article were relaxed, an image design could be protected under the law. This requirement is not an essential one that necessarily arises from the nature of a design itself. Therefore, there is no reason to exclude image designs from the scope of protection under the Design Law, and protecting the creation of image designs under the Design Law would be suitable for the actual condition of the creation as well as reasonable from the perspective of the legal system.

In order to protect the creation of a figure to be indicated without restriction of article or the constitution itself of other image design applied to article, it would be possible to establish a secondary Design Law, an Image Design or the Like Protection Law, as a legislative measure.

Next, the necessity to amend the definition of “design” will be examined.

As long as the existing Design Law considers an indicated figure as a pattern that is represented on a part of an article,

(1) an image design by software that is voluntarily

installed via an external storage unit,

(2) an image design on a website that is indicated on a user terminal via communication lines, and

(3) an image design by software that is downloaded via telecommunication lines

shall not be considered as such the pattern, and therefore it shall be excluded from the scope of protection as it does not constitute “design” under the Design Law.

In order to also protect these image designs under the Design Law, it would be reasonable to remove the restraint that a design must be applied to an article as an element to constitute “design” and to redefine “design” for protection of “shape, pattern or color or combination thereof” as such, which is applied to an article and which produces an aesthetic impression on the sense of sight under the Design Law.

The first proposal of such definition would be “shape, pattern or color or any combination thereof that is applied to an article”. However, this expression would not be appropriate in light of the legislative history in Japan, as mentioned before. According to this definition, an image design would be considered as a “pattern or color or any combination thereof that is applied to an article”. In this case, however, not only image designs but also designs of water works or fire works would be included in the framework of the definition. To avoid expanding the scope of protection to such extent, a provision of exceptions would be required.

The second proposal of the definition would be to redefine an “article” as “an article (including part of an article and a figure, etc. that is indicated on a display screen by electromagnetic means)”, without changing the definition of “design” (“a shape, pattern...that is applied to an “article”). In this case, not only a conventional “design” that is incorporated into an article but also the indicated figure itself that is independent from an article and something evaluated as equivalent would be considered as “design”.

Under the principle of one application for one design, the existing Design Law shall not protect an image design composed of figures to be indicated with variation which are created as a united one, “where there is no relevance in form between the appearances of figures before and after the variation”<sup>(\*13)</sup>. From the interpretative perspective, it is possible to make a subject of an application for such image design as one design.

In this case, it would be possible as a legislative solution to revise the provision for a design with a movable element from “where the shape, pattern or color of an article to which the design is applied varies according to the function that the article possesses and where registration is sought for the shape, pattern or color or a combination thereof as

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(\*13) Guidelines in supra note 1, Requirement 3.

it appears before, during and after the variation referred to, the request shall contain a statement to that effect as well as an explanation concerning the said function of the article<sup>(\*14)</sup> into “where the shape, pattern or color of a design varies and where registration is sought for the shape, pattern or color or a combination thereof as it appears before, during and after the variation referred to, the request shall contain a statement to that effect, specifying the appearance before, during and after the variation”. By such revision, it would be possible to stipulate in a single provision for both the case where a design varies according to the function of the article as well as the case where it varies independent of an article.

If the provision for a design with a movable element is to be applicable to the case of infringement of a part of a design, it would be appropriate to consider making a provision for an indirect infringement under which the working of a part (or an important part) of a design with a movable element should be deemed as the working of the design. In this respect, such an opinion in the conventional view is dominant that in either relationship between a set of articles and the respective articles or relationship between a design of a whole article and a design for a portion of an article, it is impossible to establish a right that can be exercised both for the set or whole and the part. According to this opinion, the design of the whole article is one design and the design for the portion of the article is another design, and therefore it would be necessary to file separate applications for these two designs in order to obtain protections for both. With the aim of legislative solution for this problem, it might be necessary to carefully consider the linkages with the relationship of use between a design of a whole article and a design for a portion of the article, the related design registration system, and protection of designs for individual articles in a design of a set of the articles. Looking this issue from a different standpoint, it would be appropriate to consider establishing a system that introduces an idea of the multiple-claiming system under the Patent Law. This would enable an applicant to file a single design application for designs chosen from a whole design with a movable element in the above sense and its individual partial designs, and then exercise respective right for each design.

If a design were independent from an article, it would be necessary to revise the definition of “working” under the Design Law.

Under the above first proposal in which a design is defined as a “shape, pattern or color or any combination thereof” which is applied to an article and which produces an aesthetic impression on the sense of sight, the act of working a design would include any act of applying the design to an

article. Therefore, any act of producing, using, assigning, etc. an article to which a design is applied is considered as an act of working the design like under the existing law. Furthermore, the provision regarding the act of assigning and leasing should be revised to stipulate “the provision via telecommunication lines shall be included in the case where a design consists of a figure, etc. that is indicated on the display screen by electromagnetic means”.

In this respect, an act of producing an image design within the scope of a registered design and assigning or leasing, etc. the produced image design shall be considered as an indirect infringing act.

Under the second proposal, applying an image design to an article could be read as “act of manufacturing articles to which the design has been applied”.

As to the provision for indirect infringement, it would be appropriate to revise the statement “(to be used) exclusively for the manufacture of the article to which the registered design has been applied” into “(to be used) exclusively for the application of the registered design to the article and the manufacture of the article to which the design has been applied”.

There are other matters to be considered as follows:

① If the coverage of the respective classifications of articles are expanded, there is a fear that prior design search in the examination would be difficult and more designs that have reasons to be invalidated would be registered. To avoid such a situation, it is necessary to make efforts to establish and open to public an effective database by positively ask for submission of information, or at least to require an applicant to describe the information on prior designs relevant to the design concerned in the application.

② In order to refine the Design Law as a law for protection of creations so as to provide broad protection to highly creative designs, it would not be appropriate to maintain the concept of similarity in the criteria for determining the scope of protection under registered design. Therefore, it is necessary to delete the phrase “designs which are similar” from the requirements for registrability and for protection under the existing law and provide that “a registered design and designs that could easily have been created by those skilled in the art on the basis of the registered design” shall be protected under the Design Law.

(Senior Researcher: Saburo Moriwaki)

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(\*14) Article 6, Section 4 of the Japanese Design Law.