

## Patent System in the Era of Internet \*

The First Subcommittee\*

The First Patent Committee

### (Abstract)

By the rapid development of electric telecommunication methods, such as the Internet, the Japanese social system as a whole is markedly changing into an information-oriented society. Under the influence of such changes, the Japanese patent system has steadily altered for fitting to the changes of society, and Sections 29 and 30 of the Patent Law were amended and enforced in January, 2000. In this article, the writers assess this amendment of the Patent Law, the operating guidelines issued by the Japanese Patent Office and the circumstances in the Western countries, and examine problems concerning whether electronic information on the Internet can be effective as evidence. The writers also suggest proposals to utilize the Internet to handle the intellectual property affairs in companies, and give a piece of advice in handling of electronic information on the Internet.

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### 1. Introduction

As the electric telecommunication methods, such as the Internet, have rapidly and remarkably developed and as electronic commerce and E-mail have been widespread, a social system as a whole has been markedly changing into an information-oriented society. In addition, the Internet has made the borders with foreign countries disappear, which steadily accelerates social globalization.

The waves of this change have naturally reached the patent system as well. Procedural digitalization started in February 1990 when an electronic application system was introduced, following which publication of official gazettes was digitalized in 1993 when publication of unexamined applications was made in the form of CD-ROMs. In 1999 an electronic library was established in the home page of the

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Japanese Patent Office on the Internet. Digitalization of patent information in the Japanese Patent Office has been developed, ahead of the rest of the world. Furthermore, in the new Japanese Patent Law, which was enforced in January 1, 2000, its principle "to be publicly known and used in Japan or foreign countries" was adopted and, taking into consideration the increased technical information that is dispatched by means of the electric telecommunication methods, including the Internet, the relevant provisions were amended so that technical information that is available by the electric telecommunication methods can be easily treated as prior art. Needless to say, such amendment keeps up with the trend of the information-oriented society, and no doubt such amendment is necessary and desirable.

However, if the current patent system is evaluated from the standpoint of companies, it seems that problems and concerns remain unresolved. Starting from the following section, the writers mainly examine the operating guidelines issued by the Japanese Patent Office on December 10, 1999, pick out matters and problems to be focused upon and suggest proposed utilization of the Internet and advice thereon for companies.

## **2. Outline of the Amendment of the Japanese Patent Law relating to the Internet**

With the rapid popularization of the Internet as an important factor, Sections 29 and 30 of the Japanese Patent Law were amended in January 1, 2000. The major elements of such amendment are: a principle of "to be publicly known and used in Japan or foreign countries" is adopted in Paragraphs 1 and 2 of Section 29(1), information transmitted through electric telecommunication lines, such as the Internet, is evaluated the same as a printed publication in Paragraph 3 of Section 29(1), and provisions for exceptions to lack of novelty under Section 30 (Section 184<sup>quaterdecies</sup>) covers information transmitted through electric telecommunication lines, including the Internet.

### **2.1 To Be Publicly Known and Used in Japan or Foreign Countries**

In the past, only the domestic facts were considered, except for a printed publication, in order to determine whether the subject matter had been publicly known and used or not. Therefore, in the past, a patent could be issued if the subject matter had been publicly known and used abroad but not publicly known and used in Japan. However, with the recent amendment of the Japanese Patent Law, the geographical scope to which a principle of "to be publicly known and used" is applied has been extended to foreign countries.

Since an actual examination of whether the subject matter is publicly known and used in foreign countries was difficult, a principle of "to be publicly known and used" was to apply to the domestic facts only. However, with the progress of the electric telecommunications methods, such as the Internet and E-mail, currently we can easily obtain various information both domestically and internationally. Therefore, it seems inappropriate to restrict the geographical scope to which the principle of "to be publicly known and used" is applied to within the domestic area. By the way, the principle of "to be publicly known and used in Japan or foreign countries" has already been adopted in the Western countries.

### **2.2 Expansion of Grounds for Lack of Novelty**

As Paragraph 3 of Section 29(1) was amended, an invention that became available to the general public through telecommunication lines, including the Internet, is treated as those available in a issued publication.

Some of the technical information disclosed on the Internet is of value equal to those disclosed in theses or a printed publication of technology magazines, and it is expected that people will disclose technical information on the Internet more and more frequently in the future. Accordingly the technical information disclosed on the Internet should be naturally treated as a ground for lack of novelty, too.

By the way, anybody can easily obtain the technical information disclosed on the Internet by operating a PC. Thus, if the contents of

such technical information are disclosed in detail to the extent that one can understand the invention, such invention becomes one "which was publicly known" as mentioned in paragraph 1 and even without the recent amendment, such invention could have been treated as such. However, since it is difficult to prove the electronic technical information that was disclosed on the Internet to be "publicly known" and it is desirable to treat such information and a printed publication in the same way, Paragraph 3 was amended.

### 2.3 Extended Application of Provisions for Exceptions to Lack of Novelty

Section 30 (Section 184<sup>quarterdecies</sup> in a case relating to PCT) provides that an invention that lacks novelty because it comes to fall under any of the Paragraphs of Section 29(1) should be treated as not lacking novelty under certain conditions. Since Paragraph 3 of Section 29(1) was recently amended as aforementioned, Section 30 was also amended so that an invention that becomes publicly available through telecommunication lines, including the Internet, shall be treated as an exception to lack of novelty.

In addition, in order that the provisions for exceptions to lack of novelty can be easily applied, the recent amendment of the Japanese Patent Law also eased requirements as to identicalness of an invention to be patented with those already published.

## 3. Examination of the Amendment and Interpretation of the Japanese Patent Law relating to the Internet

### 3.1 Matters to Be Examined in the Course of Interpretation of Paragraph 3 of Section 29(1) of the Japanese Patent Law

Paragraph 3 of Section 29(1) of the Japanese Patent Law was recently amended as follows, whereby electronic information on the Internet and a printed publication come to be treated in the same way.

*Section 29 (1)*

*Any person who has made an invention*

*which is industrially applicable may obtain a patent therefor, except in the case of the following inventions:*

.....

*(iii) inventions which were described in a distributed publication or made available to the public through telecommunication lines in Japan or elsewhere prior to the filing of the patent application.*

By the way, since information on the Internet is electronic information, it is not always appropriate to treat such information and a printed publication in the same way irrespective of circumstances. For example, a printed publication, once published, remains physically stable, but electronic information on the Internet might disappear completely and forever if a sender of such information (e.g. a manager of home page) deletes such information. Thus, some troubles, which could not have occurred in the past, might occur due to the recent amendment of the Japanese Patent Law since electronic information on the Internet shall be treated as a ground of lack of novelty.

(1) Whether a third party uses it or not

In the recent amendment, the fact that "to be publicly known on the Internet" is added to Paragraph 3, which is interpreted as "an invention is not required to be actually recognized by somebody, but it is enough that an invention is placed where somebody can know it," should mean that "to be publicly known as a printed publication" are treated in the same way. The operating guidelines also clearly state that "'available to the public' means a situation where an unspecified person can see it, but does not require somebody to actually have access to it".

Some of the technical information disclosed on the Internet is of the same value as that disclosed in theses or technical information papers, so it is not desirable that an invention which in the past could not have obtained a patent can obtain a patent now although theses were opened by using electronic information. Furthermore, it is generally difficult to prove that electronic information on the Internet was known to a third party bound by no obligation to keep confidentiality prior to the filing of the patent application. Taking these into consid-

eration, it should be interpreted that both the fact of “to be publicly known on the Internet” and of “to be publicly known as a printed publication” do not require a third party to actually have gained access to or used such information.

(2) Period during which such information is accessible

Since a printed publication, once published, remains a tangible object, one can read or obtain such publication relatively easily. To the contrary, information on the Internet is intangible electronic information, which can be deleted quite easily. There is electronic information that exists on the Internet for a extremely short period only. It is doubtful whether such electronic information should be treated as “those available to the public”.

In the operating guidelines, it is stated that “information that was disclosed for a limited period only, for a period that is not long enough for the public to see (e.g. information that was disclosed on the Internet for a short period)” might not be information that is available to the public. However, it is questionable what “a short period” exactly means.

In this respect, if a third party denies patentability of an invention citing information that was disclosed on the Internet only, such information should be treated as information available to the public because such third party actually used such information on the Internet even though it was disclosed for a short period only. In other words, such information was placed where unspecified people were able to have access to it.

Consider in which case “a short period” might be controversial. An example is that a sender of information “disclosed an invention on the Internet (in bad faith) so that he was able to establish the fact that such invention was publicly known through disclosure on the Internet for a short period”. In other words, he intended to secure reasons of invalidation of a patent filed thereafter by means of information disclosed on the Internet, even though for a short period. In determining whether such information should be treated as a ground for lack of novelty, the following opinions were expressed in the meeting of First Committee.

- “The sender of this information did not have a firm intention to disclose such invention to

a third party, therefore, such information should not be treated as being available to the public”.

- “It should be proved that a third party having no confidentiality obligation has had access to such information on the Internet. It is a matter to be covered by Paragraph 1 and not by Paragraph 3”.
- “If one can have access to the home page by retrieving through search engines and information is disclosed in such homepage for such a period as he could download such information, such information should be treated as information available to the public even if it was disclosed for a short time”.
- “It is necessary that one can see the same information as often as possible whenever he has access to it, i.e., reproduction. If information that was disclosed can be deleted or altered, such information and a printed publication should not be treated in the same way”.

To judge comprehensively, it is difficult to define what is “for a short time” precisely. In order to determine whether certain information is available to the public or not, it is necessary to take into consideration case by case all factors, such as what kind of homepage it is in which such information was disclosed (whether such homepage is a well-known and a lot of people have access to it or not, etc.), the attitude of information senders toward disclosure, and whether somebody has actually had access to such homepage or not. Appropriate operation by the Patent Office is desirable. In this respect, specific discussion and judicial precedents in the future are also expected.

(3) Scope of telecommunication lines

The operating guidelines say that “‘lines’ mean transmitting wires that generally consist of two-way lines enabling interactive transmission. Broadcasting that can transmit information in one-way only is not included in such lines (excluding cable television and so on that transmit information interactively)”.

“Lines enabling interactive transmission”, in other words, would be “lines through which an information obtainer (who gets access to information) can freely obtain such information at any time he wants to”.

By the way, dissemination of information by an E-mail, which utilizes lines enabling inter-

active transmission in a functional aspect, and ordinary television or radio broadcasting should be treated in the same way if such information is disseminated by an information sender in one-way and only once, and if anyone cannot have access to such information again even though he wants to. In such case, since people cannot have access to disclosed information freely, such information should not be treated as “information that was disclosed through telecommunication lines” and as an invention “that has become available to the public”, and such information should be regulated under Paragraph 1 of Section 29(1) of the Japanese Patent Law, like ordinary television or radio broadcasting.

#### (4) Specifying the time when information is available

The operating guidelines say that “information is available to the public when there is a link on the Internet, registered in search engines, or an address (URL) is published in an information mass medium (e.g. widely and commonly known newspapers or magazines), and there is no restriction for the public to have access to it”. Accordingly, if it is necessary to specify the time when the information was available to the public, this would be the time when a server on which such information is transmitted becomes accessible to any unspecified third party.

#### (5) Time difference

The operating guidelines say that “the date and time when information is published should be decided by converting local date and time when information is published in the homepage on the Internet into Japanese date and time”.

In many ordinary cases, a possible problem would be resolved by converting local date and time into Japanese date and time as stated in the operating guidelines. However, in an extraordinary case where a Japanese company, which opened its homepage in a foreign server for the purpose of cutting costs, uses Japanese date and time as publication date and time of information, some confusion would possibly arise. In order to avoid such confusion, it will be necessary to indicate such absolute time as Greenwich Mean Time when information is disclosed on the Internet. One should try as hard as possible to avoid filing a patent applica-

tion and publishing information on the same day.

#### (6) Special Homepage

The operating guidelines say that “even if one needs a password to have access to the homepage, or one has to pay a fee for such access, information, which is disclosed on the Internet, where people can know it is existing, and to which unspecified people can have access, should be deemed as information available to the public”. The operating guidelines also give an example of information that is not available to the public, that is, “cases where an address is not disclosed, those who can have access to information are restricted, information is encoded and one cannot obtain any tool to decode it, and information is disclosed for a short period only (as aforementioned)”. One of typical examples that are not available to the public is an intranet for internal use only.

A method of handling these special homepages prescribed by the operating guidelines seems to be very practical. However, if one has to pay an extremely expensive fee for having access to a homepage, such homepage should be treated as the one that is available to only restricted people.

#### (7) Language to be used

Though the operating guidelines do not particularly mention the language to be used in an homepage, any homepage expressed by any language will be deemed as a ground for lack of novelty like a printed publication. However, if information is encoded or is expressed by machine language, and if one needs a special and hardly-obtainable measure or method to decode such information, we cannot say that such information is available to the public.

#### (8) Voice/animation/downloaded files

Though the operating guidelines do not particularly mention information obtainable from a homepage other than picture, voice or animation is often included in such homepage. Even if an invention is disclosed in a homepage by utilizing voice or animation, there is no ground for denying such invention as a ground for lack of novelty by reason of utilization of voice and animation. Voice and animation, and picture should be treated in the same way. For example, animation showing the workings of a

machine should be deemed to be a ground for lack of novelty of the subject matter related to the method of such machine working.

There is also information which does not appear in visual form on a homepage, but is obtainable only by downloading to a recording media such as a hard disc (downloaded file). In such case, there is also no ground for denying information as a ground for lack of novelty by reason of a fact that such information does not appear on the Internet as a picture. Downloaded files and pictures should be treated in the same way.

### **3.2 Determination of Novelty and Inventive Step on the Basis of Electronic Information on the Internet With Its Connected Links**

#### (1) Differences between a printed publication and electronic information on the Internet

The start and end of a printed publication is clear, and the order of reading is subject to the order of description. To the contrary, electronic information disclosed in a homepage of the Internet often consists of several files, with the links attached to sentences and charts thereon. Accordingly, electronic information on the Internet is different from a printed publication in such respects as that the start and end of information is not clear, that the order of reading is not definite, and that one can easily have access to a completely different homepage from the initial homepage.

Taking such differences into consideration, the writers have examined a method of determining whether certain information is novel or progressive on the basis of electronic information on the Internet with the links, and mentioned the results as follows.

#### (2) Determination of novelty and inventive step on the basis of description in a printed publication

Paragraph 3 Section 29(1) of the Japanese Patent Law provides that an invention that is described in a distributed publication prior to the filing of the patent application cannot obtain a patent. An invention that is described in a printed publication means an invention that can be recognized from what is actually described and substantially described in a printed publica-

tion, furthermore, what can be derived from items entered in the publication using technical knowledge commonly known at the time of distribution of such publication, what is recognized as a matter of course, and what is "substantially described" in the printed publication?

Section 29(2) of the Japanese Patent Law provides that, if an invention could easily have been made by a person skilled in the art on the basis of inventions disclosed in a printed publication or publications, a patent shall not be granted to such invention. Here, this determination depends on whether there is any motivation to make an invention in such publication. For example, where the claimed invention extends over inventions described in several printed publications, one should prove that there is "a motivation to connect" the claimed invention to these printed publications in order to deny its patentability.

It seems to unreasonably hamper the advantage of the patent applicant if one denies novelty only according to whether there are links attached to a past web site which are "things that are substantially described", or if one negatively evaluates an inventive step according to whether simply "there is a motivation to connect" various sites. To the contrary, refusing to take the links into consideration in determining novelty might grant a patent to an invention already publicly known, which seems unfair.

#### (3) Handling of novelty on the basis of the electronic information on the Internet in the U.S.

In the U.S., an invention that was described in a printed publication prior to the creation of such invention also lacks novelty and is not patentable (35 U.S.C. 102(a)). However, determination of novelty is limited to a case where all the factors which make up the invention are mentioned in a single document, which is called "Single Document Rule". There exist two exceptions to the above rule. One of them is that, if the second document is necessary for understanding contents of the first document, a combination of the first document and the second document can be treated as a single document (In re Samour, 197 USPQ 1, 4571 F.2d. 559 (CCPA 1978)). The other is that, although the second document may not be combined with the first document so as to make up

for a lack of factors in the first document, a combination of the first document and the second document can be treated as a single document if it is clear that the second document is a part of the first document, it being as if the content of the second document were described in the first document (General Electric Co. v. Brenner, 159 USPQ 335, 337 (D.C. Cir. 1968)). In order to determine whether information found in links should be treated as combined with the original information to which links are attached, basically the above criterion should be used.

- (4) Ideal determination of novelty and inventive step on the basis of electronic information with links on the Internet

In the U.S., "if it is clear that the second document is a part of the first document as if the contents of the second document were described in the first document", determination of novelty and inventive step on the basis of these two documents is permitted, and this criterion seems to directly apply to electronic information with links on the Internet. On the other hand, the operating guidelines do not mention how to determine novelty and inventive step in Japan if the fact of "substantially described" is applied to electronic information on the Internet. In this respect the Japanese Patent Office applies the following rule.

*In principle, two or more pages that are linked (HTML files, etc.) cannot be treated as single document. However, if a piece of electronic technical information is divided into two or more homepages due to limited capacity of such homepages and such homepages are linked together, such information can be treated as single document.*

As aforementioned, each of those that are linked together seems to be basically treated as separate citation. However, taking into consideration the fact that one can quite easily have access to another file unlike a printed publication, an idea held in the U.S., i.e. determination after making sure of the writer's intention, should be considered. It seems appropriate to treat two pieces of information that are linked together as if they a single piece of information and determine novelty on the basis thereof, but sometime it does not seem appropriate. Some-

times it seems appropriate to decide that there is motivation for combining two pieces of information because they are linked together, but sometimes it does not seem appropriate.

### **3.3 Provisions for Exceptions to Lack of Novelty (Relating to Section 30 of the Japanese Patent Law)**

#### *Section 30 of the Japanese Patent Law*

*(1) In the case of an invention which has fallen under any of the paragraphs of Section 29(1) by reason of the fact that the person having the right to obtain a patent has conducted an experiment, has made a presentation in a printed publication, has made a presentation through telecommunication lines, or has made a presentation in writing at a study meeting held by a scientific body designated by the Commissioner of the Patent Office, such invention shall be deemed not have fallen under any of the paragraphs of Section 29(1) for the purposes of Section 29(1) and (2) to the invention claimed in the patent application which has been filed by such person within six months from the date on which the invention first fell under those paragraphs.*

*(2) In the case of an invention which has fallen under any of the paragraphs of Section 29(1) against the will of the person having the right to obtain a patent, the preceding subsection shall also apply for the purposes of Section 29(1) and (2) to the invention claimed in the patent application which has been filed by such person within six months from the date on which the invention first fell under any of those paragraphs.*

- (1) The operating guidelines of the Japanese Patent Office

With the recent amendment of the Japanese Patent Law, the following operating guidelines were disclosed in the homepage of the Japanese Patent Office on December 20, 1999 as "the operating guidelines for handling of exceptions to lack of novelty of inventions".

- (a) Documents proving that there was a presentation through telecommunication lines

Such documents must include 1) contents of such information (printout of the homepage disclosing such information, etc.), 2) when such

information is disclosed, 3) presenter, and 4) an address on which such information is disclosed. Furthermore, the guideline suggests that it is desirable to attach 5) a statement certified by a person who was responsible for disclosure and preservation of such information. If documents so submitted seem to be doubtful, the examiner will inquire to the person who can verify whether such documents have been altered or changed.

(b) Application of any of the Paragraphs of Section 29(1)

Information shown in the above documents submitted as above should not be treated as prior art for the purposes of Section 29(1) to the patent application if such patent application can receive an exception to lack of novelty due to such information.

(c) Applicable time

Patent applications filed on or after January 1, 2000 shall be covered.

(2) Identicalness of persons

In what cases should identicalness of persons (applicant and presenter) be secured in the case of a presentation using the Internet?

Many cases of a company which, after disclosing information in its own homepage, files a patent application for an invention mentioned in such information by applying Section 30(1), come to mind. In such case identicalness of persons is clearly secured because a person who discloses information has the right to obtain a patent.

However, according to characteristics of the Internet, a person disclosing (publishing) information is often not the same as a person creating an invention. For example, a company's development information might be disclosed not in the homepage of a person entitled to obtain a patent, but in the homepage of a newspaper company or advertising agency. Some companies might consign management of their homepages to a specialist company of information technology or their affiliate. In such cases, identicalness of persons seems not to be secured.

As discussed earlier, if a presenter is 1) a person himself who has the right to obtain a patent, or 2) a person who is consigned to a

presentation by a person having the right to obtain a patent, identicalness of persons seems to be secured.

By the way, in the case that a company did not use its own homepage and filed a patent application under Section 30(1), it is desirable to attach to documents proving the above fact, such as a certificate of the server manager and a deed of assignment of the right to obtain a patent prior to the date of the presentation.

(3) Identicalness of the subject matters

Prior to the recent amendment of the Patent Law, one can apply "exceptions to lack of novelty" only if an invention falling under any of the Paragraphs of Section 29(1) and an invention claimed in the patent application are identical. Where the above two inventions are not identical, he cannot apply exceptions to lack of novelty, and as a result thereof the patent application is sometimes rejected pursuant to Section 29(2) because such invention can be easily created by utilizing the invention disclosed by himself.

Especially a presentation on the Internet is much easier than a presentation in writing in a printed publication or at a study meeting, therefore, a presenter might disclose information in an insufficient manner so as to publish such information as early as possible. In such case such information is often not identical to the invention claimed in the patent application, and quite a few applications are rejected due to a presentation of the applicants' own information, which would be an obstacle to obtain the patent.

However, according to the recent amendment of the Japanese Patent Law, it does not matter any more whether the subject matters are identical or not, and the Patent Law was amended so that a presentation of its own information should not be treated as prior art in determining novelty and inventive step of the patent application, which would resolve the above problem.

(4) Documents proving that there has been a presentation through telecommunication lines

Unlike a printed publication, electronic information on the Internet will be renewed day by day, and is likely to be mistakenly decoded or altered by a third party. Thus, validity of such



information as evidence is often questionable.

Not only in the stage of filing an opposition but also in the stage of providing information during examination, in many cases “information contained in written presented document” and “information that is acquired by a third party or the examiner by using the Internet and accessing an address” are not identical, as time passes. In addition, sometimes such address itself might be changed, in which case one might be suspected of altering data by the third party or examiner.

From the standpoint of companies (patent applicants), in order to avoid unnecessary conflicts after submitting documents, it is desirable to attach to a document certifying a presentation on the Internet, a certificate issued by a department in charge of management of the homepage (certifying the date and time of a presentation, a presenter and the fact of presentation) and a deed of assignment of the right to obtain a patent prior to a date of the presentation, in addition to 1) to 4) mentioned in the operating guidelines. It will be more and more difficult to arrange these certificates as time passes, so it is desirable to prepare them at the time the patent application is filed.

(5) Information made publicly known against one's intent

A presentation on the Internet can be carried out by anyone who simply has a PC. Thus, it is possible that someone would acquire internally confidential information in an office or at home and would disseminate such confidential information to the public by connecting his private PC to the Internet.

In such case, an exception to lack of novelty may be applied pursuant to “to be publicly known against one's intent”. However, it is very difficult to comprehensively monitor dissemination of internally confidential information, and Section 30 cannot be applied if the patent application is not filed within six months from the date of dissemination. In a case of inventions relating to machinery and electricity, the worst situation would be avoided to some extent by attempting to file the application as soon as possible. On the other hand, in a case of inventions relating to materials for which preparation of experimental data is necessary, the patent applicant might suffer a great deal.

From the standpoint of companies, it is desirable to educate and guide employees so as to prevent them from disseminating internally confidential information to outsiders by using the Internet.

### 3.4 Problems as to Whether Electronic Information on the Internet Can Be Valid as Evidence

Characteristics of electronic information on the Internet are that there is immediacy in it and it can be reproduced or altered very easily. Immediacy means that it can be easily erased (concealed), and easiness of reproduction or alteration means that it is doubtful whether such information is effective as evidence or not. Regarding electronic information on the Internet there is, therefore, a bigger problem as to whether such information is effective as evidence or not, compared with information in a printed publication. Electronic information on the Internet also has another problem, i.e. it is extremely difficult to produce evidence by this means against an opposing party's allegation and evidence since electronic information is disseminated on the Internet for a short period only and would disappear without leaving a trace.

(1) The operating guidelines of the Japanese Patent Office (citation at the stage of examination)

The operating guidelines say that, if there is little doubt that the contents and the opened date described in the homepage at the time when a person has access to it are the same as those at the time when the examiner has access to it, the contents in the homepage at the time when such examiner has access to it should be recognized the same as those at the time when the first person has access to it. In addition, the operating guidelines say that, if it is doubtful, an investigation must be carried out in order to determine whether such contents can be used as citation, and say that information in the homepage that seems quite doubtful should not be used as citation.

By the way, the operating guidelines list the following homepages as examples of being little in doubt.

- Homepage of a publishing company that has

- issued printed publications for a long time,
- Homepage of a scientific organization,
  - Homepage of an international organization, and
  - Homepage of a public authority.

The operating guidelines also say that, if the patent applicant's refutation as to the date and time of disclosure and as to the contents thereof is not supported by evidence and if such patent applicant insists upon doubtfulness only on the basis of the fact that it was disclosed on the Internet, such refutation should not be accepted due to lack of concrete grounds. However, the operating guidelines say that, if the date and time of disclosure and the contents thereof become doubtful because of the patent applicant's refutation, the examiner should ask a person having authority or responsibility for publication and preservation of the information in question for confirmation and require such person to issue a certificate proving the date and time of disclosure and the contents thereof. Furthermore, the operating guidelines say that if, as a result of examination of the patent applicant's refutation, the examiner cannot decide whether such electronic technical information was actually disclosed prior to the filing of the patent application in such a form or not, such electronic technical information must not be cited as prior art.

## (2) Time of proving

It is conceivable that the cases where the patent applicant or a third party initially needs to prove, in the course of proceedings relating to a patent, that electronic information on the Internet effectively exists, are the case where he wish to use the information provision system, or the cases where he wish to file an opposition to the grant of a patent or files a trial for invalidation of a patent, as an alternative to applying for an exception to lack of novelty as aforementioned.

With respect to a case where one applies for an exception to lack of novelty, in principle it is sufficient to submit such documents as mentioned in the operating guidelines. If completion of those documents is likely to be doubted, he would need to attach certificates proving the date and time of disclosure in the homepage and the contents thereof. However, fortunately, apart from a case of disclosure against a patent applicant's intent, in the case of applying an

exception to lack of novelty, the sender of electronic information on the Internet would quite often be the patent applicant himself or a person who has a close relationship with the patent applicant. Moreover, preparation of those documents is relatively easy because any act to be certified would have been done within the past six months. Therefore, the patent applicant seems less likely to fall into difficulties proving his request.

On the other hand, in a case where one takes such steps to obstruct establishment of others' rights as the provision of information, filing an opposition to the grant of a patent or filing a trial for invalidation of a patent, he can not easily obtain cooperation from a sender of electronic information on the Internet. In some cases an act to be certified might have taken place a long time ago, therefore it is expected that a third party would have many difficulties in proving his request.

However, in the course of steps to prevent establishment of others' rights to obtain a patent, it seems sufficient to print information out and submit the same to the Patent Office if such information disclosed in such homepages conforms to the operating guidelines for high reliability, following which the examiner or trial examiner would treat such information as a prior art pursuant to the operating guidelines. By the way, the operating guidelines require a information provider to submit a printout of the contents of such information to be submitted, to indicate the date and time when such information is disclosed, the address from which such information is obtained and a person to be contacted. On the other hand, the operating guidelines do not mention how to handle such information in an opposition to the grant of a patent or a trial for invalidation of a patent. Although general principles in the Code of Civil Procedure would be applied in the above examinations, it is expected that such cases of disclosure of information would be handled in the same way as those in a case of the provision of information, as mentioned in the operating guidelines. Needless to say, it is desirable to try for perfection by submitting evidence. However, taking into consideration the fact that it is very difficult to produce evidence against completion of electronic information on the Internet, the writers suggest that submission of documents required

by the operating guidelines should in actual cases be enough when using information disclosed in the homepage as a prior art beyond reasonable doubt.

On the other hand, in a case of information disclosed in the homepage that is not recognized as beyond reasonable doubt, it is necessary to prepare certificates proving completion of such information and submit the same to the Patent Office. In a case where completion of information disclosed in the company's own homepage or in the homepage of a third party who is cooperative to it must be proved, it seems rather easy to obtain certificates proving the date and time of disclosure of information and the contents thereof from a person having authority or responsibility for management of the server. However, in a case where completion of information disclosed in the homepage of the patentee or the patent applicant or in the homepage of a third party who is not cooperative to it must be proved, one cannot expect to obtain a certificate from the server manager. In such case it is recommendable to submit certificates of a third party who actually watches the homepage (e.g. a competitor other than the patentee). In some instances one might expect the examiner or trial examiner to contact a person for confirmation in lieu of submission of the above certificate. The examiner or trial examiner, however, would not even contact such person if he thinks it is not likely to resolve doubts. In addition, the examiner or trial examiner might not be satisfied with the answer of such person, and therefore the person who wishes to submit evidence must attach such certificates as proving completion of evidence. Apart from a case where electronic information on the Internet must be used, such person should change his plan, and find and use publications such as Patent Gazette or general articles which can serve as replacements in order to avoid these difficult obstacles.

In a case where information disclosed in the homepage that is not recognized as beyond reasonable doubt is submitted to the Patent Office by using the information provision system, attention should be paid to the documents to be submitted. The information provision system is a one-way system for an information provider, and an opportunity to argue against the examiner or trial examiner is not given in cases where the examiner or trial examiner does not

recognize validity of such information. If one wants to deny novelty or inventive step on the basis of information disclosed on the Internet whose completion is doubtful, it is rather recommendable to use an opposition to the grant of a patent or, more desirably, a trial for invalidation of a patent instead of the information provision system, irrespective of costs and non-anonymity.

### (3) Time of refuting (issue of alteration)

In the proceedings relating to a patent, the following cases are considered as cases where it is necessary to deny validity of electronic information on the Internet by producing counterevidence. They are the cases where a third party tries to deny effectiveness of the patent by the reason that there is a fault in applying exceptional provisions to lack of novelty (e.g. not within six months), or where a patentee or a patent applicant tries to deny, in a written argument or written reply, validity of electronic information that is found and cited by the examiner or trial examiner by themselves, that is submitted by the information provision system or that is submitted by the opposite party in an opposition to the grant of a patent or in a trial for invalidation of a patent.

In such cases it is not sufficient to insist upon doubtfulness of information simply because it is disclosed on the Internet, but it is necessary to submit evidence that denies validity of such electronic information. For example, it is recommendable to submit a certificate prepared by the server manager which proves that the contents are different on the indicated date and time or a document that indicates the true contents as of the indicated date and time. Naturally, it is desirable to obtain a third party's certificates in submitting this kind of counterevidence. In addition, if the opposite party's documents include inconsistency, it is effective to argue against credibility of such documents by pointing out such inconsistency. For example, if there is a description of a thing in a print-out that takes place after the indicated date and time, or if there is inconsistency among several pages, at least one can put the validity of such documents into doubt.

If too strict verification is required in the course of examination or trial examination, the aim to decide something "to be publicly known

on the Internet" not according to Paragraph 1 but according to Paragraph 3 would not be attained. However, too generous operation would cause a severe situation for the patent applicant or the patentee. From the standpoint of companies, the writers feel it is desirable that validity of information, which is disclosed in one of the homepages listed in the operating guidelines as beyond reasonable doubt or such other homepages equally credible, should be less strictly required, and validity of information which is disclosed in unreliable homepages or the homepages owned by a person denying validity of the Patent, should be strictly examined.

### 3.5 Circumstances in the Western Countries

#### (1) Circumstances in the U.S.

Articles 102 and 103 of the U.S. Patent Act, which provide for novelty and non obviousness, do not mention how to treat electronic information on the Internet. Therefore, whether or not electronic information on the Internet can be deemed as a "printed publication" as set forth in Article 102, or whether or not such electronic information is publicly known should be the criteria of whether such information can be treated as a prior art.

By the way, at the stage of examination of the U.S. Patent and Trademark Office, in what case would validity of electronic information on the Internet be controversial? Although in the amended U.S. Act that is to come into force in 2000, the system of laying-open of unexamined application is partially introduced and the system of request for reexamination claimed by a third party is improved, a third party's involvement in the examination or trial examination at the Patent and Trademark Office is strictly limited. Therefore, it is expected that cases where a patent applicant himself provides information in an information disclosure statement (IDS), and where a patent applicant replies to a notification of reasons for refusal in which a prior art found by the examiner by using the Internet is cited, would be major situations where validity of electronic information on the Internet is controversial at the Patent and Trademark Office. In the former case, as the patent applicant admits that it is a prior art, so basically it is not necessary to prove its validity. In the latter case, on the other hand, it would be necessary to submit

an affidavit or declaration set forth in the Rule 132 for denying validity of evidence.

Secondly, there are the information provision system (protest) and the system of request for reexamination (reexamination) that a third party uses in order to deny validity of other's patent at the Patent and Trademark Office. However, in the present information provision system, it is not permitted to submit information other than in a form of a printed publication. In the reexamination, a witness is not permitted to prove validity of evidence. Therefore, is it a wise choice for a third party to request for reexamination on the basis of electronic information on the Internet? Apart from costs, isn't it a wise choice to argue on validity of a patent in a court? By the way, if invalidation of a patent is sought in a court, whether such invention becomes publicly known or not on the basis of electronic information on the Internet should be proved by submitting documents or by calling a witness pursuant to the principle of "preponderance of the evidence".

Also in the U.S., the U.S. Patent and Trademark Office provides for the Internet Usage Policy as the guideline for the examiners using the Internet. This Policy sets forth the guideline on the usage of the Internet in official duties carried out at the Patent and Trademark Office, and the examiners in the U.S. are required to comply with this Policy.

This Policy restricts the retrieval on the Internet and the use of E-mail so that the examiners as civil servants would not breach the confidentiality obligation. This issue seems especially important in the U.S. in conjunction with the system of laying-open of unexamined application. With respect to handling of the cited documents, this Policy says that it complies with the WIPO standard ST. 14 (advice on the scope of reference cited in the patent document) and that a retrieval formula should be indicated in such patent-related articles as search reports.

#### (2) Circumstances in Europe

Since the European Patent Convention has not made a distinction between a printed publication and general information to be publicly known, electronic information on the Internet and general information to be publicly known are not distinguished as a matter of course. Novelty and inventive step are provided for in

Article 52 of the European Patent Convention as follows.

*Article 52 of the European Patent Convention Patentable invention*

*(1) A European patent shall be granted to an invention that is industrially available, novel and has an inventive step.*

With respect to handling of electronic information on the Internet, the European Patent Office does not plan to make a new provision for "to be publicly known on the Internet" in the near future, like Paragraph 3 of Section 29(1) of the Japanese Patent Law, but applies the existing provisions. Therefore, a reference on how to treat electronic information on the Internet will be gradually established by appeal/trial decisions and judgements. For the time being there seems no trial/appeal decision relating to handling of electronic information on the Internet as a reference.

In the European Patent Office, the examiners do not organizationally use the Internet as a tool of examination of patentability at present. However, if the examiner as a result of his voluntary investigation finds electronic information on the Internet, they say that such information should be treated on the basis of the date of such investigation. In other words, such information should be treated as general information that shows technical standard in the field to which the invention in question belongs.

#### **4. Advantage and Disadvantage for Companies**

Since electronic information on the Internet and information disclosed in a form of printed publication like magazines or books are of equal value, and the former has advantages of immediate transmission and easy process/reproduction, companies should use such information in conducting intellectual property-related business as much as possible.

However, electronic information also has disadvantages, i.e. it is difficult to confirm whether such information actually exists, compared with technical information on a printed publication, and it is hard to prove completion thereof because it is quite easily altered or de-

stroyed. There is also another problem; i.e. it is difficult to produce counterevidence when it is misused. Judging from the above, there are several points to which companies should pay attention in conducting intellectual property-related businesses.

The writer suggests a method of utilization and some advice that seem useful for companies as follows.

##### **4.1 Proposed Utilization of Advantage for Companies**

###### **(1) Disclosure of its own technology by using the Internet**

One of the ideas to utilize the Internet for conducting intellectual property-related businesses is to disclose its own technology by using the Internet. For example, disclosure in its own homepage or consignment of disclosure to a third party of technology that is not worth filing a patent application or that has been already filed, can be conceivable.

By using the Internet, it is likely that one can disclose detailed contents of technical information more promptly because of its characteristic of immediacy, compared with disclosure by laying-open of unexamined application (utilization of accelerated laying-open), the journal of technical disclosure by the Japan Institute of Invention and Innovation and its own journal. It becomes also possible to disclose the same information not only domestically but also internationally at the same time. Finally one can reap the benefit of avoiding the posterior applications from this. By the way, disclosure on the Internet means disclosure in the U.S., which gives the merit of the effect of Article 102(b) of the U.S. Patent Act. However, since the benefit of avoiding the posterior applications will apply to the inventor himself too, and may result in the refusal of rights, needless to say disclosure should be carefully conducted. Having said so, even if information is disclosed by mistake, in most cases, if within six months, it is recoverable in Japan owing to the recent amendment of Section 30 of the Japanese Patent Law.

Disclosure of information by using the Internet is desirable for companies from the viewpoint of costs. With the expansion of office automation in companies, almost all of information currently seems to be prepared and

made by PCs and treated in a form of electronic information. If so, unlike patent applications or journal of technical disclosure, one can directly disclose already existing electronic information on the Internet because any specific format is not required for disclosure of information on the Internet. It would be more advantageous with respect to costs, too, compared with the printed publications. Depending on the situation, an appropriate amount of the fee may be collected from those who have access to the homepage.

In addition, disclosure of information on the Internet makes it easy to store the disclosed information in a database, which seems convenient for companies. Electronic information stored in a database can be easily retrieved/re-used later on.

If more and more companies come to disclose information on the Internet in the future from the viewpoint of the above advantages, it would surely help companies resolve the long-standing and important problem of how to reduce defensive patent applications.

#### (2) Prior art search by using the Internet

As an idea of utilizing the Internet for companies' intellectual property-related businesses, secondly a prior art search by using the Internet is conceivable. For example, a prior art search can be conducted by using retrieval search engines or a technical information database that uses the Internet.

By using the Internet, it will become possible, to some extent, to conduct a search for non-patent-related documents and general information publicly known that are not in database, for which it was difficult to find it in the past. In addition, it can be said that the amendment of Paragraph 3 of Section 29(1) of the Japanese Patent Law has made it necessary to conduct a prior art search by using the Internet. Accordingly, when filing a patent application for an important invention, a prior art search by using the Internet should be conducted without fail.

However, since it takes quite a long time for the time being to conduct a search by using the Internet because of the lengthy loading operations, it seems less efficient. Therefore, it must be decided how far the search should be conducted from the viewpoint of costs and efficiency. Furthermore, it is feared a secret may

be leaked to competitors from the retrieval keyword used when using the Internet and conducting a prior art search of a pioneer invention which has a novel conception, and attention must be paid.

By the way, according to the operating guidelines, electronic technical information that is cited by the examiner in notification of reasons for refusal is to be stored in the patent-related document database of the Japanese Patent Office. This patent-related document database, if disclosed to the public so that people can have access to it, will become a very useful tool for conducting a prior art search. Although there seem many problems to resolve before realization, such as copyright, it is desirable, from the standpoint of companies, to disclose the patent-related document database to the public as early as possible.

## 4.2 Advice for Avoiding Disadvantage for Companies

### (1) Increased instability of rights

The first example to which companies must pay attention when companies conduct intellectual property-related businesses is the fact that their patent rights have become unstable compared with the past. It can be said that the patent rights have become increasingly unstable because novelty and inventive step of inventions might be denied owing to innumerable electronic information on the Internet. The fact that the scope of technology that is publicly known and used by which novelty and inventive step are denied is extended to technology abroad has contributed to such increased instability.

It is essential for the intellectual property department of companies to ascertain validity of the patent rights when planning to obtain a license from a third party or to exercise the patent rights to other companies. Increased instability of rights could cause a big problem in the above cases. For example, if the patent right is found to be invalid after obtaining a license at the cost of a large amount of money or after issuing a warning of infringement to other companies, the effects of the above must be considerable.

In such important situation as above, it will be highly recommendable to conduct a prior art search by using the Internet thoroughly.

However, due to the characteristics of the Internet that information can be easily altered/deleted, such search might possibly be imperfect and it is substantially impossible to cover any and all information disclosed in a remote area of the world or in a private homepage.

The intellectual property department of companies should pay close attention to the risk above when conducting acts of licensing or enforcing their patents.

(2) Increased disputes due to questions as to evidence/counterevidence

The second example to which companies must pay attention when companies conduct intellectual property-related businesses is the fact that, since evidence/counterevidence of completion of a prior art become more complicated than before, questions and disputes as to the above evidence/counterevidence arise between the parties are likely to increase.

With respect to the date and time of disclosure of electronic information, the verification of the disclosure and the contents of information disclosed that are cited as a ground to deny novelty and inventive step, a controversy might happen between the parties whether such information is altered or not, etc. And such controversy might cause a trial for invalidation of a patent or a patent lawsuit. Supposing that the opposite party to which a warning of patent infringement was given says the invention was disclosed in the past in such opposite party's homepage, is such opposite party's statement acceptable? Finally it depends on relationship between the parties, and the writers hope that profitless disputes will not increase.

In order to prevent as much as possible such disputes from increasing, the intellectual property department of companies should preserve accurate records and backup. In other words, not only to try to collect evidence by taking into account the fact that electronic information on the Internet involves problems of evidence/counterevidence as mentioned in the above section 3.4, but also to record and preserve collected evidence accurately is necessary. In addition, reliable backup is important in preparation for unexpected disappearance of information.

(3) Enhanced management of the company's

technical information

The third point to which companies must pay attention when companies conduct intellectual property-related businesses is the fact that a company's technical information cannot be protected by the patent because, owing to bad aspects of the Internet; i.e. convenience and immediacy of electronic information, such information is disclosed against such company's intent.

The first situation to be thought of is that technical information which should not be disclosed is disclosed in the company's homepage or that technical information under which a patent application is being prepared is disclosed without the permission of the intellectual property department. In such cases the company can apply exceptional provisions to lack of novelty if the company notices it within six months from disclosure, but to notice it later may result in irrecoverable loss of rights. With respect to disclosure of information in the company's own homepage, in most cases such disclosure would not be recognized as disclosure against the company's intent.

In order to avoid such situation, in addition to enhancement of relationship with the management department of the company's homepage, it is important to arrange internal rules that prescribe that the permission of the intellectual property department must be obtained before disclosing technical information.

The second situation to be thought of is that information transmitted by an employee of the company to his home or a patent firm is leaked to other companies. Such employee is likely to feel less guilty for taking information out by E-mail than for taking written information out, and it is difficult for the company to prevent such taking out organizationally. It seems practically impossible for a boss to keep a close eye on his followers' E-mail. It also seems likely that repeatedly passing along documents and making carbon copies make confidentiality consciousness disappear.

The writers think the only method to avoid such situation is to make steady efforts to educate employees of the company. It might be necessary to conduct sampling of employees' E-mail and to give a warning to such employees who are behaving badly.

Finally, the third situation to be thought of

is that an employee of the company disseminates confidential information of the company in bad faith. If an employee belonging to the research, planning or intellectual property department who is in the position to easily obtain confidential information willfully disseminates technical information described in confidential reports or plans with the intention of damaging the company, the patentability of the development results that are obtained at the expense of an enormous amount of money could be lost. In the worst cases, an employee who is dissatisfied with the company might behave rashly.

Basically the only method to avoid such situation again seems to be making steady efforts to educate employees of the company. In addition, as the only way to avoid the above case is to demonstrate that there has been disclosure against the company's intent later, filing a patent application as soon as possible is important.

## 5. Conclusion

We discussed the patent system in the era of the Internet as it ought to be, mainly on the basis of the amendment of the Japanese Patent Law that came into force in January, 2000. There is no doubt that the electric telecommunication methods, such as the Internet, will be developed further. Therefore, in the Japanese patent system, the recent amendment of the Patent Law is just the beginning, and the Law will be amended or the proceedings will be changed repeatedly.

With respect to companies' patent practice, it will be essential for companies to try to improve the internal infrastructure day by day in accordance with the development of electric

telecommunication methods, including the Internet, to construct a working scheme that is appropriate for the present time and to make daily business operations efficient.

## Reference

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### Study Members of This Subject

SARUTA, Leader, Kobe Steel, Ltd.  
 TOUKAIRIN, Sub-leader, HITACHI CONSTRUCTION MACHINERY CO., LTD.  
 ARAKI, MITSUBISHI-TOKYO PHARMACEUTICALS, INC.  
 SASAKI, DAINIPPON PRINTING CO., LTD.  
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