ARTICLES

Treatment of Technical Information Disclosed on the Internet as Prior Art and Corporate Response*

The First Subcommittee,
The First Patent Committee

(Abstract)

As the Internet and other telecommunication media are becoming widely used in recent years, various technical materials which have conventionally been provided mainly in the form of printed media are now being provided in the form of electronic data. In line with those changes, prior arts and prior use are now recognized on a worldwide basis, technical materials disclosed on the Internet are treated in the way as same as printed publications, and examination manual are provided and actually implemented under Patent Law which became effective on January 1, 2000. This article focuses on how the system is implemented and what response and measures are taken by business undertakings.

Contents

1. Introduction

As the Internet and other telecommunication media are becoming widely used in recent years, various technical materials which have conventionally been provided mainly in the form of printed media are now being provided in the form of electronic data. As a result information is published and becomes available more promptly and easily, removing national borders and accelerating globalization. In respect of patent-related practice, electronic media and data become rapidly in use in, for instance, electronic application system for patent applications, electronic patent publications and electronic library system published on the website of Japan Patent Office.

In line with those changes, prior arts and prior use are now recognized on a worldwide basis, and technical materials disclosed on the Internet are treated in the way as same as publications, under Patent Law which became effec-

* "*CHIZAI KANRI*" (Intellectual Property Management) Vol.52, No.12, pp.1789-1802 (2002)

tive on January 1, 2000. "Treatment of Material on Internet as Prior Art" has also been implemented as implementing policy and examination manual. The implementing policy was discussed in the article titled "Ideal Patent System in the Internet Era" in August 2000 (No.8, Vol. 50, Chizai-kanri (Intellectual Property Management) (2000))(hereinafter referred to as "1999 Report") while this article is focused on how the system introduced in January 1, 2000 has been implemented and what response and measures are taken by businesses to cope with the new system.

2. Patent System Relating to Use of Internet Material

2.1 Outlines of Amended Patent Law

(1) Important modification to the patent system has been made (effective since January 1, 2000) in relation to the use of Internet material, which is amendment of Articles 29 and 30 of Patent Law relating to novelty and inventiveness, which is very important to the patent practice. Also important is that the amendment resulted in world-wide recognition of prior art and prior use according to items 1 and 2, paragraph 1 of Article 29 and equivalent treatment of information obtained from the Internet and other online resources to printed publications according to item 3 of the same Article.

Conventionally prior art and prior use other than printed publications became subject to examination only when it had been published or used in Japan, and patent was granted even though a relevant invention had been published or used in a foreign country. Amended law, however, recognizes prior art and prior use in a foreign country.

As various information becomes available through telecommunication media including the Internet and e-mails, it is no more appropriate to only recognize prior art and prior use in Japan. Amendment to item 3 also caused technical information drawn from the Internet to be recognized in the same way as printed publications.

(2) Article 30 of the Patent Law (Article 184-14) was also amended for the same reasons, as a result of which exceptional treatment to loss of novelty may be applicable based on electronic data disclosed on the Internet. That is to say, an invention may not lose its novelty even if it became publicly available through telecommunication media including the Internet responding to amended item 3, paragraph 1 of Article 29.

2.2 Examination at Patent Office

As a result of law amendment as outlined above, "Implementing Policy on How to Recognize Information on the Internet as Prior Art" and "Implementing Policy on How to Recognize Exception to Loss of Novelty of an Invention" were published on the web site of the Patent Office on December 10, 1999, while "Treatment of Information on Internet as Prior Arts" was provided in Section 5, Part II "Patentability" of Examination Manual for Patent and Utility Model Applications as published in December 2000. According to the Manual, materials drawn from the Internet may be deemed as prior arts in the examination at the Patent Office based on the following principles:

(1) "Effective Date"

The manual would apply to new and pending patent applications on and after January 1, 2000.

(2) "Definitions of Terms"

Terms "online," "public," "publicly available" and "Internet" are defined. The term "publicly available" is especially described as follows:

That "publicly available" means that a certain thing is 'laid open to inspection by unspecified number of persons'. It does not require the fact of actual access. To be more specific, it is clearly stated that information on the Internet will be deemed as publicly available if the web site is generally accessible through link function, registration to any search engine or publication of the address (URL) on public communication media (such as popular newspapers and magazines)'.

It means that any information published on the Internet will be deemed as publicly known if it has been laid to the accessible status, without any proof of actual knowledge of invention as is the case with the printed publications.

(3) "1. Information Which Became Publicly Available through Telecommunication Lines and Which May be Cited as Prior Art"

According to the manual, information published on the Internet that is to say "technical information obtained through telecommunication lines (hereinafter referred to as "Electronic Technical Information") must have been as such and available to the public prior to the time the relevant application was filed if it is to be cited as prior art and treated in the same way as printed publications." In terms of date of publication, it is clearly provided that "whether or not cited Electronic Technical Information became publicly available prior to the filing date of relevant application shall be decided based on the date of publication marked on the Electronic Technical Information," and that "Electronic Technical Information with no marking of date of publication may not be cited in principle." In relation to the foregoing, "publication date of cited Electronic Technical Information and issue of its modification" are also discussed and response thereto is stipulated because information on the Internet is easily modified in its nature. It is clearly provided, for instance, that if there is any doubt in relation to the publication date, "information on a web site may not be cited."

The manual lists web sites with less doubt, such as "web sites of publishing companies", "websites of academic institutions," "web sites of international organizations" and "web sites of official institutions" while stating repeatedly that "material without marking of publication date may not be cited in principle."

In addition, if the examiner finds the publication date of a cited Electronic Technical Information is doubtful, he/she may "employ the reference if the doubt is wiped out" after "investigating the doubt by asking to the contact person indicated on the web site if any modification has been made."

(4) "2. Means of Citation"

An examiner is clearly directed to "cite a reference giving priority on the printed publications to Electronic Technical Information if both of them are qualified for citation," and "add Electronic Technical Information cited in the notice of reasons for rejection to the patent reference database" as information on the Internet can be modified and/or deleted in its nature.

In addition, a reference must be cited with "description of bibliographic data as known in respect of the Electronic Technical Information in accordance with WIPO standards ST. 14. (See examination manual for details)"

On the part of a party providing information, Electronic Technical Information obtained from the Internet may be submitted in the way as is the case with printed publications to the extent "in the form of hard copy of the Electronic Technical Information obtained from the Internet" which "contains subject information, publication date of the information, URL from which the information was obtained and contact information in relation to the information."

(5) "4. Applicant's Rebuttal"

Rebuttal may be accepted in accordance with the following conditions 1) through 3):

1) Applicant's rebuttal for the published dates and contents of the information will not be accepted for lack of grounds if it is not supported by evidence and it is a mere argument that the cited reference was obtained from the Internet;
2) If applicants' rebuttal raises a doubt that Electronic Technical Information as published prior to the filing date might not have been different from the one cited by the examiner, or that cited Electronic Technical Information might not have been publicly available prior to the filing date, the examiner will be required to communicate with a responsible or authorized person to confirm the publication and maintenance and request issuance of certification with respect to the publication date and contents of information.
3) If the examiner comes to have an impression as a result of examination of applicant's rebuttal that it is not clear if the cited Electronic Technical Information had been published as such prior to the filing date, such Electronic Technical Information shall not be cited as a prior art.

2.3 Situations in Other Countries

(1) How Electronic Material on Internet is Treated in U.S. in respect of Novelty

Under the U.S. Patent Law, 35 USC 102

provides treatment of printed publication as prior art while there is no provision equivalent to Article 29 of Japanese Patent Law in relation to publication through Internet.

On June 21, 1999, U.S. Trademark Office issued "Internal Usage Policy" as guidelines for employees at U.S. Trademark Office (64 FR 118, pp.33056- 33066 (1999)) (hereinafter referred to as "Internet Usage Policy").

The Internet Usage Policy stipulates in detail, for instance, considerations on conducting prior art search using the Internet during the examination procedures of patent applications and how to indicate electronic information obtained from the Internet, CD-ROM and disc as cited reference.

That means that U.S. Patent and Trademark Office also uses electronic data obtained from the Internet in its prior art search and as cited reference in the same way as printed publications in accordance with the Internet Usage Policy. And a third party other than U.S. Patent and Trademark Office seems to be able to treat electronic data from the Internet with respect to patent applications in the same way though there is no clear law provision.

(2) How Electronic Material on Internet is Treated in South Korea in respect of Novelty

In South Korea, item 2, paragraph 1, Article 29 of Patent Law in relation to loss of novelty and paragraph 1, Article 30 of Patent Law in relation to exception to loss of novelty were amended and become effective for Korean applications on and after July 1, 2001.

The amended law recognizes information published through the Internet as printed publications by adding invention which became available to the public through telecommunication lines to inventions deemed to have lost their novelty due to disclosure on the printed publications distributed in and outside Korea.

In addition, while only an invention completely identical to the published invention became subject to exception to loss of novelty under old law, improvements are now subject to the exception. And information published through telecommunication lines is now subject to exception to loss of novelty.

3. Study on Construction and Implementation of Patent Law System

3.1 Conventional Studies

In the report of 1999, item 3, paragraph 1. Article 29 and Article 30 of amended law as well as Implementing Policy of December 10, 1999 (current examination manual) were discussed, and several problems were indicated including the followings:

(1) Period for Inspection

While the Implementing Policy provides that "information which has not been published for an enough time period for the public to view the information (such as information published on the Internet for a short period of time)" may not be deemed as publicly available information, the definition of "short period of time" is not clear.

(2) Time Difference

While the Implementing Policy provides that "publication date shall be decided upon converting the time of a country or an area where certain information on the Internet was first published on the web site to the Japanese standard time," it is not clear whether the publication date is decided based on the Japanese time or not if information is published by a Japanese corporation through a server located in a foreign country using the Japanese time.

(3) Special Network

While the Implementing Policy provides that "even if a certain password is required or a certain fee is charged to access the web site, information on the Internet may be deemed as publicly available information if it is obtained through the Internet, and if the public can find the existence and site of the information, and if unspecified number of people can access the site," it is not clear how certain information is treated if a user must pay an unreasonable amount of money to access the web site where the information is located.

(4) Sound/ Movie/ Download Files

While the Implementing Policy does not particularly refer to materials other than still

images as information available from a web site, web sites often contain sound and movies. In addition, there are materials not displayed on the screen of terminal computer which become available only by means of downloading them to the memory media such as hard discs (download files). The treatment of such materials is not clear.

3.2 Latest Studies

For the current study, we focus on the following issues from the practical standpoint of using information on the Internet.

(1) Actual Publication Date

While the Implementing Policy provides that "whether or not the information became publicly available prior to the filing date decided based on publication date marked on the Electronic Technical Information," the date and time on which certain information becomes available should be decided upon close examination of the publication date (time) marked on the information itself.

As a result of our study on actualities of various technical information published on the Internet, two problems were identified: that there is difference between the publication date marked on the information itself (hereinafter referred to as "Marked Date") and the date on which the information was actually uploaded to the database (hereinafter referred to as "Actual Publication Date"); and that information on the Internet is not retained for a long period of time.

We found that both problems are seen in various web sites irrespective of the generally-claimed reliability.

1) Difference between Marked Date and Actual Publication Date

We found actual cases where Marked Date and Actual Publication Date are not identical, for instance,

- Actual Publication Date was a few days after Marked Date which is the date of issue of the press release;
- Actual Publication Date of the paper as the Internet information on the web of an academic organization was one day prior to the Marked Date which is the date on which the subject paper was published in the academic convention.

As a result of investigation on such examples, we found that such difference had not been made on purpose. And we believe that the following background contributes to the difference:

Recent development of the Internet has enabled information to be transmitted very easily compared to printed publications. Major features of the Internet, that is, instant transmission of information and easy modification, are most effectively used when the party transmitting the information sends out new information whenever necessary.

Accordingly, while Actual Publication Date of information on the Internet means very important to a person engaged in intellectual property matters as it consists of one of the most important aspects of patentability together with novelty and inventiveness, a person who weighs much on the instant and modifiable nature of information on the Internet cannot find much importance in publishing the information on the same day and time as Marked Date, resulting in rough management in this respect.

2) Measures under Current Examination Manual

As we discussed above, few general web sites pay much attention in making each piece of materials bear the date of publication taking into account the date on which the materials will become publicly available on the web site. The Examination Manual does not clearly provide how the difference of Marked Date and Publication Date, if any, should be treated.

The Examination Manual provides that "Electronic Technical Information without marking of publication date may not be cited in principle," and that even a web site with very few doubt "may not be cited in principle if it does not contain a marking of publication date; provided such a web site may be cited if a certificate is provided by the person in charge or responsible for the publication and maintenance of the information with respect to the date of publication to the web site and its contents," which may suggest that any material from general web sites without Marked Date and any material of which Marked Date and Actual Publication Date are not identical should be subject to establishment as "publicly known invention" pursuant to item 1, paragraph 1, Article 29 of Patent Law.

However, it seems preferable that a

certificate should be obtained from the person in charge or responsible for the publication and maintenance of subject information with respect to the date of publication to the web site and its contents even in the case of a material from a web site containing Marked Date, to eliminate any possibility of doubt in the future.

3) Preservation of Internet Materials

The second issue is relating to the nature of the Internet that the old materials are not stored or preserved for a long period of time.

In fact, the party transmitting information weighs much on the instant and easily modifiable nature of transmission, as described above, and does not pay much attention to preservation of old materials (contents, date of transmission, etc.) because preservation of old information, especially Actual Publication Date and contents of information, is often beyond the interest of the party transmitting information who gives priority in transmission of latest information whenever necessary. Thus both business undertakings and academic associations are engaged in such a basic management unless there is special intention such as accumulating transmitted materials to make a database.

It is true, on the other hand, that there are some companies which commercially store and warrant the data, which will be discussed later in this paper.

(2) Web Sites with Very Few Doubt

The Examination Manual lists as web sites with less doubt, web sites of publishing companies engaged in the publication of printed documents for a long period of time, websites of academic institutions, web sites of international organizations and web sites of official institutions though it is not clear if there is any specific criteria to decide certain information located on those web sites are reliable, and if any, what the criteria is. In addition, any doubt seems to be eliminated "upon provision of a certificate by the person in charge and responsible for the publication and maintenance of subject information with respect to the date of publication to the web site and its contents" though it is not clear if such construction is correct. More specific policy will be required at an early stage for a company to improve its own web site as well as use sites providing various services in response to the system.

In addition, the following problems seem to exist in practice:

The Examination Manual is based on the recognition that 1) there is very few doubt that certain information was published as such 2) at the time of marked publication date, in respect of web sites of publishing companies and others. In fact, there seems less possibility of causing trouble to recognize that 1) certain information was published as such, because publishing companies are not believed to modify the contents for the purpose of evading application of Articles 29 and 30 of Patent Law or misappropriating the law.

However, 2) marked publication date may cause trouble even with respect to the web sites of publishing companies because of the possible difference between Marked Date and Actual Publishing Date as discussed above.

Academic associations are partly the place for the industry and academic world to communicate with each other. As many TLOs (Technology Licensing Organization) are being established in recent years, results of studies conducted by "academic world" have actively been established as rights. Naturally, many researchers at business undertakings participate in the academic associations to represent "the industry." Under the circumstances, it is possible to call for "the academic associations to commit themselves to the issues relating to Patent Law to protect the interest of their members" from the standpoint of a member. To be specific, method of managing web sites in which Marked Date and Actual Publication Date (if not the time of the day) of materials are identical should be considered.

(3) Patent Reference Database

The Examination Manual provides that "Electronic Technical Information cited in the notice of reasons for rejection is added to the patent reference database." If the technical data accumulated to the database becomes widely available to the public to be used by third parties, existence of the technical data including the publication date may be easily recognized and established.

However, publication of this database is difficult partly because of the copyright problems. In this respect, we wonder if it is possible that the Patent Office and academic associations

cooperate with each other and agree, for instance, not to enforce copyright with respect to materials located on the websites of academic associations and contained in the patent reference database of the Patent Office even if all of the preserved reference data can not published.

(4) Submission of Information

The Examination Manual provides that "Electronic Technical Information obtained from the Internet may be submitted in the form of hard copy together with the subject information, publication date of the information, URL from which the information was obtained and contact information in relation to the information. In such cases, it is preferable that a certificate issued by the person in charge or responsible for the publication and maintenance of subject information is accompanied with respect to the date of publication to the web site and its contents." However, it is not clear whether provision of hard copy satisfies or another certificate is required in the case where updated materials from the Internet are used based on the updated date. There is no clear provision on the appropriate form of the certificate. Actual and specific cases are expected to be piled up on those issues. Whether a person engaged in management of subject web site and requested to issue a certificate in or after using the materials located on the site can properly issue a desirable certificate establishing the publication date and contents is also questionable.

4. Problems, Considerations and Response of Businesses

Companies may be in different positions in using Internet materials from web sites for intellectual property-related activities: the position of using Internet materials as prior art documents during patent examination; the position of receiving Internet materials as prior art documents from the Patent Office and/or third party; and the position of using the Internet to disclose its own technology to make it a prior art. We sent questionnaires to 59 companies belonging to the Patent First Committee to find the actualities and problems in relation to the use of Internet materials. The results are outlined as follows:

(1) Q1: Management of Own Web Site

The Examination Manual provides that publication date and contact information must be submitted for a website to be cited as reference, and that it is preferable to obtain a certificate from the person in charge of management of the web site.

1) Q1-1: Have you felt that, after amendment of Patent Law, certain measures need to be taken to the management rules for the web site of your company?

About a half, or 29 out of 59 companies responded that they have felt necessity of reviewing management rules for their web sites after the law amendment (Figure 1).

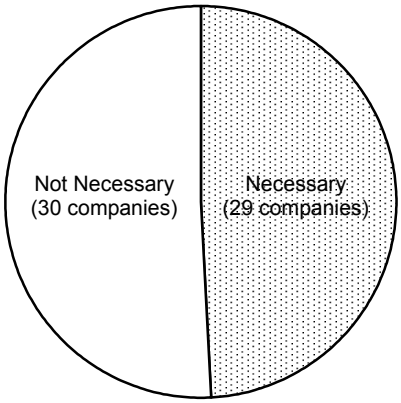


Figure 1 Necessity of Reviewing Website Management Rules

2) Q1-2: Have you actually taken measures to make technical data located on your website to be recognized as prior art?

Only 3 out of 59 companies actually took measures on their website (Figure 2).

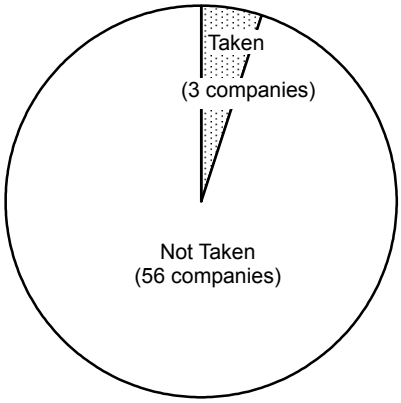
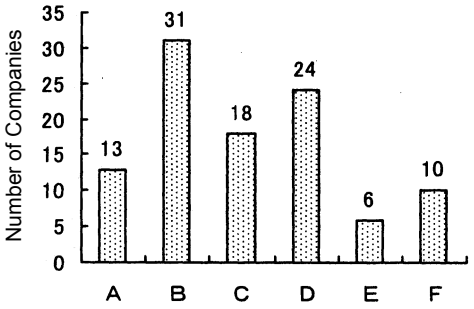


Figure 2 Actual Measures to Make Website Materials Prior Art

The actual measures include establishment of rules for designing the website (marking of publication date and contact information) and for regularly making backups for the website and its storage period.

3) Q1-3: To 56 companies having not taken measures, why haven't you taken any measures? (Mark all that apply)

Many of the companies having not taken measures responded, among others, that (B) it is questionable if Internet materials can be as effective prior arts as printed publications; (D) measures will be taken when the system of Internet prior art system becomes clear; and (C) it is troublesome to introduce management system and appoint manager for publication date of web sites (Figure 3).

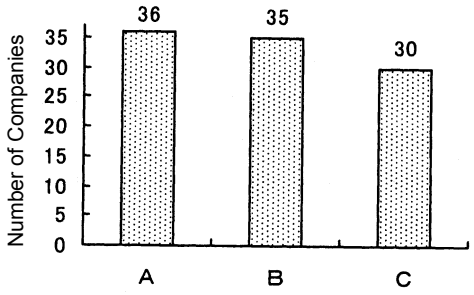


A: How the prior art system is managed and implemented is not clear.
B: The effect of internet prior art system is questionable.
C: Introduction of website manager is troublesome.
D: Measures will be taken when the Internet prior art system becomes clear.
E: Not many companies have been taken measures.
F: Others

Figure 3 Reasons for Not Taking Measures to Internet Prior Art System

4) Q1-4: Do you use the following services if they actually exist? (Mark all that apply)

(A) Website-based technical information publication service (proving the publication date, et al), (B) electronic certification service electronically proving the publication date and contents on the web site, and (C) service providing website information which can be used in the Internet prior art system. (Figure 4)



A: Website-based technical information publication service;
B: Electronic certification service proving publication to website;
C: Website-based information provision service

Figure 4 Services Expected to Use

5) Observation of Q1

The survey shows that companies are not very eager to take measures in response to the law amendment establishing the Internet prior art system, which may be because of the following reasons:

Internet material needs to be treated carefully in contrast to the purpose of use of Internet as easy and friendly tool, maybe in the similar way as databases keeping the accuracy of the publication date, storing the history of improvements and making regular backups to maintain the nature of priority. It is questionable, however, if appropriate effect may be obtained as a result of investment. Some argue that the conventional system under which printed publications are used as prior arts has no short. However, as seen in Q1-4, more than a half companies want to use various services to secure the priority nature of Internet.

(2) Q2: Experience of Internet Material Cited during Patent Examination

According to Examination Manual, the internet prior system has been implemented on and after January 1, 2000, based on which we surveyed experience of Internet material being cited during patent examination.

1) Q2-1: Have you ever received during the examination procedures a notice of reasons for rejection citing a website?

All companies surveyed (59 companies) answered "No" to the question while some of them indicated their opinion on the citation of a website as well as on what they expect the Pat-

ent Office should pay attention.

- Material viewed by the examiner may be modified or deleted when the applicant accesses the website. Clear implementing rules should be provided covering such a case;
- Hard copy should be attached to the reasons for rejection if a website is cited in it;
- A website cited should be limited to reliable websites, for example DB of official institution and to those for which the Patent Office can prove the publication date.
- Certification of publication date and grounds for recognition should be clearly stated;
- Establishment of official institution providing proof service should be considered in relation to certification of publication date and contents of a website.

2) Observation of Q2

Responses to Q2-1 seem to reflect the small number of applications that have actually been examined under the new system during the 2 years from law amendment until the survey. In addition, the Patent Office itself does not conduct prior art searches actively using Internet materials.

According to the responses to questionnaire, concerns of companies concentrated on the nature of electronic data on the websites that they are easily modified and deleted. "2. Means of Citation" in Section 5, Part II of Examination Manual directs examiners to "add Electronic Technical Information cited in the notice of reasons for rejection to the patent reference database" as well as "print out materials such as cited website and record on the printout the date of access to the website, name of examiner who accessed the site, application No. to which the materials are cited, and URL of the website from which the materials are obtained, after which they are treated in the same way as transformation of cited non-patent reference to electronic form." It is desirable that hard copy of cited websites, if any, is accompanied with the notice of reasons for rejection.

(3) Q3: Experience of Internet Material Cited during Objection Procedure

As Internet materials become as effective as printed publications, registered patent may now be invalidated (through submission of references, lodging of opposition and appeal board procedure for invalidation) based on Internet materials. Here we focused on how companies use Internet materials to file an opposition.

1) Q3-1: Have you ever searched the Internet to find prior arts to be filed as evidence for an opposition?

Some 20% of the companies surveyed, mainly in the electronic and chemical industries, responded "yes" to the question. They mainly search websites of academic associations, governmental institutions and universities as well as competitors, in some cases.

2) Q3-2: Did you actually use the Internet search results as evidence supporting your opposition?

While most companies surveyed responded "no" to this question, only one company responded "yes." Some companies used the results as supplementary materials.

3) Q3-3: Why didn't you use Internet materials for evidence? Why didn't you conduct Internet search for that purpose?

Most companies surveyed answered that printed publications had satisfied and/or that the publication date had not been clear while some stated that they could not find necessary materials through Internet search.

4) Q3-4: What conditions do you think need to be prepared to promote effective use of Internet materials?

Many suggested establishment of a system under which the Patent Office grants authorization to appropriate websites or establishment of a special website of public institutions for reference search. In respect of procedures, many indicated that certificate would not be necessary and that means of identifying publication date should be simplified.

5) Observation of Q3

Most oppositions are currently accompanied by printed publications as supporting evidence, which reflects the survey result that companies believe that Internet materials have the following problems:

- Publication date: Marked publication date is not reliable while even some websites do not have marking of publication date;
- Quality of materials: There are not materials qualified as evidence;
- Volume of materials: There are too much material on the whole Internet, preventing

to find a specific, appropriate materials. On the contrary, appropriate materials cannot be found if searching with too small search terms.

- Search engine: There is no software program by which relevant information may be extracted.

(4) Q4: Experience of Using Internet Materials for Application of Article 30.

We surveyed how Article 30 is actually implemented with respected to Internet Materials.

1) Q4-1: Have you requested application of Article 30 for invention published on the Internet?

2 out of 59 companies have requested application of Article 30 based on Internet materials (Figure 5).

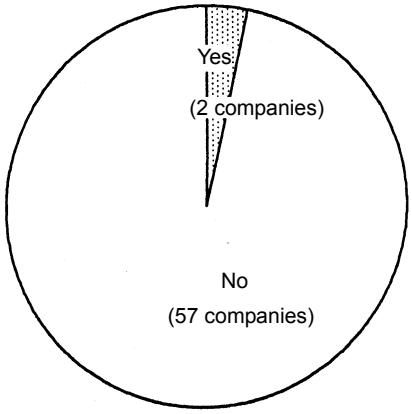
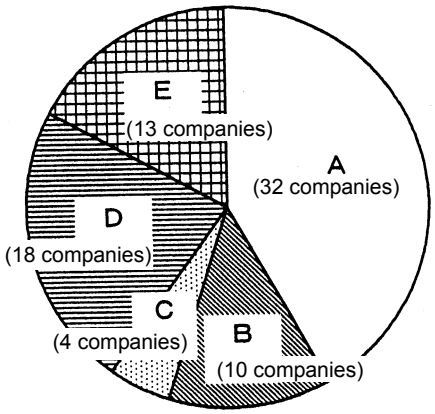


Figure 5 Request for Application of Article 30 for Invention Published on the Internet

Both application cases were such that academic paper prepared for academic convention or academic journals in foreign countries (Europe) was located on the websites of the host academic associations prior to the publication in printed matter, based on which Article 30 was applied.

2) Q4-2: What do you think makes application of Article 30 easy?

Many companies surveyed indicated that measures to reduce possibility of doubt such as clarifying the date and content of publication will make application of Article 30 easy including (A) attachment of hard copy and (D) attachment of certificate (Figure 6).



A: Attachment of hard copy
B: Easing and clarifying requirements for proving publication date
C: Exclusion of requirement for indicating publisher's name
D: Attachment of certificate issued by person in charge of web publication
E: Others

Figure 6 Requirements for Easy Application of Article 30

3) Observation of Q4

Only a few cases were reported partly because only 2 years have passed since enactment of amended law and because many companies do not actively use Article 30 itself as it provides exceptions. However, as responses to Q4-1 show, there actually are some cases under which the first publication was made on the Internet and similar cases may increase in the future, in which case measures are required to be taken to avoid any doubt in relation to the publication date and contents thereof.

(5) Q5: Use of Internet for Publishing Own Technology

We surveyed if companies use Internet materials in place of printed publications such as Kokai Gihou (Technology Journal) to publish technology and invention developed independently.

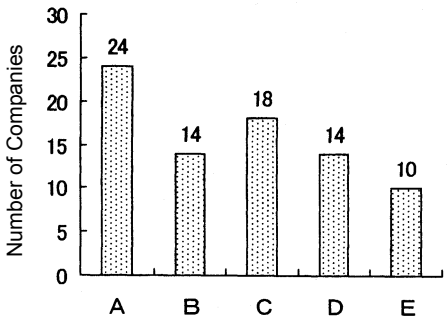
1) Q5-1: Do you use Internet website to publish your own technology?

No company surveyed was using its website to publish its own technology.

2) Q5-2: Why don't you use Internet website to publish your technology. (Mark all that apply)?

It was found that many companies are (A) doubtful about the effectiveness as proof and

feeling that (C) proving process is troublesome (Figure 7).



A: Effectiveness as proof is questionable.
B: Printed publications such as Kokai Gihou are enough.
C: Troublesome (Preservation and Proof of records)
D. We have no interest in this issue (though law amendment is recognized).
E: Others

Figure 7 Reasons for Not Using Internet to Publish Own Technology

Other responses include "corporational internal system has not been established;" "website will be actively used when appropriate circumstances are given," and "website will be used if there is a third party organization."

3) Q5-3: Do you have any opinion to the Patent Office in using website for publication purposes?

65% of the companies surveyed, or 38 companies responded to this question that "public institution should be established to provide web publication services at a less expensive fee," while 40% or 25 companies responded that "specific websites with less doubt need to be listed."

4) Observation of Q5

Many companies seem to doubt the publication date and consistence of the website under the current circumstances, and conclude that establishment of internal system to eliminate such doubt is too costly in light of the effect, while they are not totally unwilling to use the system as some responded that they may actively use the system if there exists effective public institution or a third party organization which provides less expensive services.

5. Considerations on Future Use by Businesses

Our latest survey seems to imply the current situation of companies at a time relatively shortly after law amendment as follows: while companies recognize the fact that telecommunication tools including the Internet have made provision and collection of information easy, the circumstances are not fully appropriate for practitioners to actively use such tools. There are several issues to be overcome on the part of legal system and procedures as well as corporate commitment, commitment of academic associations and others which provide Internet materials.

Management system should be established for both DBs focused on the transmission speed of information and DBs focused on storing various information, taking into account their difference. While websites and DBs as the Internet materials focused on the transmission speed have conventionally been found, the storage-type websites and DBs are expected to increase in light of securing easiness of search, saving energy, and saving limited space. Until then, the system should be established under which publication date (date of entering into the public domain) may be identified and identity with the original text (denial of alteration) may be established as effectively as printed publications.

Various websites and DBs focused on storage are actually launched or planned as listed in "List of Disclosure/ Proof Services" attached hereto.

6. Conclusion

This article is based on our study and survey on the response of Patent Office and business undertakings to the amended Patent Law which became effective in 2000 and treats technical materials disclosed on the Internet in the same way as printed publications. The new system has not actively been used partly because only a short time has passed since the system became effective, though it seems inevitable that patent practitioners actively use telecommunication tools including the Internet as they are expected to develop more and more in the future.

While practical means of implementation and procedures will be established as the experiences are piled up, companies themselves are also required to actively commit themselves in the effective use of the system.

Appendix: List of Technical Materials Disclosure/ Proof Services

	Name of Service	Provider	Description	Fee	Retention Period	Probative Value	Note	Contact Information/ URL
1	Kokai Gihou WEB	Japan Institution of Invention and Innovation	Disclosure of technical information: Format partly designated. Hard copy of a web site may be located as such.	¥3,500 -	Unlimited	Equivalent to printed publication as the same contents are simultaneously published in printed matter. Information disclosed here will be highly likely to be deemed as known arts with good probative value.	Subject information must be such that can be printed. Published simultaneously with printed version, twice a month.	TEL 03-3502-5433
2	IP.com	NGB Corporation	Disclosure of technical information: English format partly designated. Video and sound files may be attached.	Basic charge: ¥16,000/case	15 years	Authorization issued by a third party organization. But the legal status of this company as a third party organization is not clear.		TEL 03-5561-3838
3	The Internet Archive	The Internet Archive	Websites of business and other entities are regularly collected and published.	None	—	Authorization issued by a third party organization. But the legal status of this company as a third party organization is not clear.	Voluntary operation provided by a nonprofit organization and supported by U.S. Library of Congress and major companies.	http://www.archive.org/
4	HP Authorization Services	Japan Institution of Invention and Innovation	Publication date and contents of web sites are proved.	Yet to be determined	Yet to be determined	Yet to be determined	Yet to be determined as it is still in the planning stage.	TEL 03-3502-5433
5	GOT DATE	Gotdate	Authorization is issued and retained with respect to originality and publication time of electronic data. Any file format is acceptable.	¥10,000/ month	Extension available	Legal status is not clear. Authorization does not prove that subject information is prior art.		TEL 03-5215-0066
6	Secure Seal	NTT Data	Authorization is issued with respect to originality and publication time of electronic data.	¥240,000/ month	Data will not be retained.	Legal status is not clear. Authorization does not prove that subject information is prior art.		TEL 044-542-7551
7	dPROVE	Digital Notarization Authority	Authorization is issued and retained with respect to originality and publication time of electronic data.	¥300,000 or up /month	Retention period may be determined on a case-by-case basis.	Separate service, “iPROVE” is officially qualified as a special authorization service under Electronic Signature Qualification Law. Authorization does not prove that subject information is prior art.		TEL 03-5308-7558
8	Electronic Notary Service	Notary Public’s Office	Authorization is issued and retained with respect to originality and publication time of text data.	Authorization: ¥11,000/ month (basic)	20 years	Provides high probative value as service under “electronic notary system based on notary system.” Authorization does not prove that subject information is prior art.	Started from January 15, 2002. Service provided only with respect to text files for the time being.	
9	Fact and Experiment Certificate	Notary Public’s Office	Notary issues certificate upon viewing and printing out websites. Authorization is issued and retained with respect to originality and publication time of electronic data.	Authorization: ¥11,000/ month (basic) paper price ¥250/sheet	20 years	Provides high probative value as official document. That certain information is known may be proved depending on the access route (such as jumping from the search results shown by the search engine.)	Conventional service.	

(Date manuscript received: August 11, 2002)