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## STANDING COMMITTEE ON THE LAW OF PATENTS

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### DISCLOSURE OF TECHNICAL INFORMATION ON THE INTERNET AND ITS IMPACT ON PATENTABILITY

*Document prepared by the International Bureau*

#### I. Introduction

1. The Standing Committee on the Law of Patents (SCP) decided, at its first session, first part (Geneva, June 15 to 19, 1998), that the International Bureau should collect information from the existing literature concerning disclosure of technical information on the Internet and its impact on patentability, and that this issue should be placed on the agenda of the SCP for discussion, in particular with respect to whether the issue should be broadened to include related issues, such as infringement of patents through use of the Internet (see document SCP/1/7, paragraph 69).

2. This document contains a general introduction to the subject matter, an overview of existing laws and practices at the national, regional and international levels, a description of the problem and suggestions for consideration by the SCP.

#### II. Prior Art Disclosure

3. As a general rule, patents are available only for inventions that are novel, involve an inventive step and are useful or industrially applicable. In order to determine if the requirements of novelty and inventive step are met, the claimed invention is compared with

the existing state of the art. The existing state of the art is referred to as “prior art.” For example, Article 33(2) of the Patent Cooperation Treaty (PCT) provides that an invention shall be considered novel if it does not form part of the prior art. Although there is no internationally agreed definition on what constitutes “prior art,” it is generally understood that prior art consists of the knowledge which has been made available to the public before the filing date or, where priority is claimed, the priority date of the application claiming the invention.<sup>1</sup> Traditionally, the forms of disclosure of the knowledge which becomes a part of the prior art include three types of disclosures, namely:

- (i) a description in a published writing or a publication in other tangible form;
- (ii) a description in spoken words in public (oral disclosure);
- (iii) use, sale or display in public, or putting the public in a position that enables any member of the public to use the knowledge (disclosure by use).

### III. Characteristics of the Internet

4. The growing development of the Internet does not appear to be slowing down. Access to the Internet allows a wide variety of communication and information retrieval. Software makes it possible to transmit texts, images, sound, picture and video images via the Internet. Altogether, this medium has created a “cyberspace” which is attached to no particular geographical location, but is available to anyone, anywhere in the world. Indeed, the Internet gives the possibility of “publishing” any information at a global level. The development of user-friendly software has made it possible for anyone to post information on the Internet. This means that the Internet offers the possibility of global dissemination of information in a simpler, cheaper and wider manner than the dissemination of information by traditional means.

5. However, this quick-and-easy publication facility of the Internet raises additional issues related to the prior art effect of technical information disclosed on the Internet. The authenticity, veracity and integrity of information are critical issues for prior art in cyberspace. Compared with conventional paper publications, alteration and modification of content are easier, and more frequently occur, in the Internet environment. This means that information that was available one day can change without notice, or even disappear “without any trace.”<sup>2</sup> Although this could be analogous to the recall and destruction of whole books,

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<sup>1</sup> An attempt was made to harmonize the notion of “prior art” at the first part of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as far as Patents Are Concerned in 1991. Draft Article 11(2)(b) and (c) of the Basic Proposal reads as follows:

“(b) The prior art shall consist of everything which, before the filing date or, where priority is claimed, the priority date of the application claiming the invention, has been made available to the public anywhere in the world.

“[(c) Notwithstanding subparagraph (b), any Contracting Party shall be free to exclude from the prior art matter made available to the public, by oral communication, by display or through use, in a place or space which is not under the sovereignty or, in the case of an intergovernmental organization, under the sovereignty of one of its member States.]”

<sup>2</sup> Patent World (February 2000), Wim Verhulst, Joseph Riolo: “Prior Art Disclosure on the Internet: a European Perspective, Part 2: The Internet as prior art,” pp. 16-20.

doing so in the paper publication environment would undoubtedly be far more difficult and unrealistic.<sup>3</sup>

6. Furthermore, as mentioned above, in order for information to be considered as prior art, it must be publicly available. Therefore, public accessibility to the information on the Internet may need to be examined. It is estimated that the World Wide Web (WWW) currently contains more than one billion documents. Because the WWW is not indexed in any standard wording (unlike library catalogues), information is in general, retrieved by using search engines. However, it is said that these search engines do not cover all the documents located in the WWW.

7. The determination of the timing of the disclosure is another concern. Not all Internet disclosures indicate the date on which they were first disclosed. More specifically, in view of the network's capacity for instantaneous dissemination on the international scale, the time at the place where the information is uploaded may not be the same as the time at the place where the information is retrieved.

#### IV. Existing Legislation and Practices

8. As far as disclosure by conventional means, such as publication on paper or microfilm, is concerned, case law and guidelines of patent Offices have established what kind of disclosure could constitute prior art having an effect to deny novelty or inventive step. In some countries, the prior art effect of the disclosure of technical information on the Internet has been regulated explicitly under the national legislation or guidelines. As mentioned above, since national law and practice with respect to prior art effect are different from one country to another, those under the laws of Japan and the United States of America and the European Patent Convention will be described below.

9. At the international level, reference is made to the provision under the Patent Cooperation Treaty (PCT) and the efforts made by the European Patent Office (EPO), the Japanese Patent Office (JPO) and the United States Patent and Trademark Office (USPTO) (the so-called "trilateral offices").

##### A. Japan

#### Information disclosed on the Internet as prior art

10. Section 29(1) of the Patent Law provides that:

“(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:

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<sup>3</sup> Florida Law Review (April 1999), Max Stul Oppenheimer: “*In vento scribere*: the intersection of cyberspace and patent law,” pp. 230-270.

(iii) inventions which have been described in a publication distributed in Japan or elsewhere or inventions which became available to the general public through telecommunication lines in such places prior to the filing of the patent application.”

The words “or inventions which became available to the general public through telecommunication lines in such places” were introduced by the amendment made in May 1999 in order to explicitly establish the disclosure on the Internet as a ground for lack of novelty.

11. Subsequently, the Japanese Patent Office issued the “Operational Guidelines on Treatment of Technical Information Disclosed on the Internet as Prior Art.”<sup>4</sup> According to the Guidelines, “a ‘line’ means a two-way transmission line, generally constituted by send and receive channels. Broadcasting, which is only capable of one-way transmission, does not fall under the definition of a line (except for cable TV etc., that is capable of two-way transmission).” Therefore, the provision would cover any information obtained through the Internet, commercial databases and from mailing lists

(a) Availability of information to the general public

12. According to the Guidelines, the phrase “available to the general public” means “the information is in a state where it can be seen by unspecified persons, and does not necessarily imply that it has actually been accessed.” In general, information can be considered as being available to the general public if it is published on the Internet, its presence and location can be found by the general public, and it is accessible by unspecified persons. Specifically, information is considered as being available to the general public if it is linked with any other site on the Internet, registered with any search engine, or the URL of the site is published in a means providing information to the general public (for example, a widely-known newspaper or magazine), and if, at the same time, public access to the site is not restricted. It is considered as accessible by unspecified persons even if access to the website etc. requires a password, if anybody can access the website etc. by acquiring a password through a set of non-discriminating procedures, regardless of whether there is a charge for the acquisition of a password. A website that is accessible by the mere payment of a fee is considered as a website accessible by unspecified persons.

13. According to the Guidelines, the following types of websites are not considered as being available to the general public:

(i) websites etc. that are on the Internet, but are only accessible by chance due to the lack of publication of the URL;

(ii) websites etc. that are only accessible by members of a specific body or a company and of which information is treated as secrets (e.g. an in-house system only usable by the employees, etc.);

(iii) websites etc. on which information is encoded in such a way that it cannot generally be read (excluding cases where a decoding tool is openly available through a set of means, with or without a charge);

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<sup>4</sup> Also available on the Internet: <http://www.jpo-miti.go.jp/infoe/unnyousisine.htm>.

(iv) information that is not published over a period of time sufficient to allow access by the general public (e.g., information published on the Internet for a short period of time).

(b) Time and contents of publication

14. The Guidelines indicate that the answers to the question whether the information was published before the filing date or not is based on the time of publication indicated in the cited electronic technical information. The time of publication is determined by converting the time in the country or region where the information on the Internet was published on the respective website into the Japanese Standard Time. In principle, examiners do not cite information that does not indicate the time of publication.

15. Since information on the Internet can easily be altered, the issue will always arise of whether the cited electronic technical information was published with exactly the same content at the indicated time of publication. In this regard, the Guidelines provide that, where there is only an extremely small element of doubt as to whether the cited electronic technical information was published with exactly the same content at the indicated time of publication, the examiner cites the information on the presumption that the content of the information published at the time of the examiner's access was the content published at the time of publication indicated in the website. Websites of renowned publishers, such as electronic newspapers and magazines, academic institutions, international organizations and public organizations usually clearly indicate places of contact, and are considered to involve extremely small degree of doubt as to integrity of contents. The Guidelines allow examiners to cite information on these websites even if the time of publication is not indicated provided they obtain a certificate as to the time of publication as well as to contents from a person with authority or responsibility for the publication and maintenance of the published information.

16. In cases where there is any doubt as to whether the contents of the information on the website was the same at the time of publication, examiners shall not cite that information unless he/she inquires to the place of contact and resolved such doubt.

(c) Citation

17. According to the Guidelines, the examiners shall print out the information cited from the website, note the time of access, the name of examiner, the relevant application number and the URL of the website on the printed sheet. Citation of electronic documents must be in compliance with WIPO Standard ST.14 (Recommendation for the Inclusion of References Cited in Patent Documents).

(d) Search via the Internet and confidentiality

18. The Guidelines recognize that the communication via the Internet for searching prior art by an examiner may be traced by a third party and, as a consequence, the invention claimed in the application may be leaked to third parties through a search formula or key words. Although a patent application is published after 18 months from the filing date, the Guidelines

provide that sufficient care shall be taken where applications have not been published at the time of the prior art search.<sup>5</sup>

#### Exceptions to lack of novelty of invention

19. Section 30(1) of the Patent Law provides that

“(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, application of the provisions under Section 29(1) and (2) on the invention claimed in a patent application filed by such a person within six months from the date on which the invention first fell under those paragraphs shall be deemed not to have fallen under any of the paragraphs of Section 29(1).”

20. In conjunction with the amendments made in Section 29(1)(iii), in May 1999, Section 30(1) was also amended to exempt presentation through telecommunication lines from lack of novelty in the same manner as the presentation in publications. Consequently, the Japanese Patent Office issued the “Operational Guidelines on Treatment of Exceptions to Lack of Novelty of Inventions.”<sup>6</sup> According to those Guidelines, the document proving the act of presentation through telecommunication lines must contain the contents of the information (for example, a print-out from the website), the indication of the time of publication of the information, the name of the presenter, and the URL of the website. It is desirable to attach a certificate by a person with authority or responsibility for the publication, maintenance etc. of the information concerned.

B. United States of America

21. 35 United States Code (U.S.C.) Section 102(a) and (b) provides:

“§ 102 *Conditions for patentability; novelty and loss of right to patents*

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

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<sup>5</sup> The Guidelines indicate that the following search formulas are likely to lead to leakage of the invention to a third party:

- search using new combinations of general terms;
- where a publicly known art is used for a novel purpose (the use of a certain article for a certain purpose is novel).

<sup>6</sup> Also available on the Internet: <http://www.jpo-miti.go.jp/infoe/hatusinkie.htm>.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

...”

22. The law does not contain any special provision concerning disclosure on the Internet and its prior art effect. However, the “Manual of Patent Examining Procedure (MPEP),” issued by the United States Patent and Trademark Office (USPTO), provides guidelines with respect to the status of electronic publications as prior art and Internet searching. In addition, the USPTO has published an “Internet Usage Policy”<sup>7</sup> in order to provide guidance to its employees regarding the use of the Internet for official USPTO business. The “Policy” covers the usage of the Internet to search for information concerning patent applications.

(a) “Printed publication”

23. 35 U.S.C. Section 102(a) and (b) states that a “printed publication” constitutes prior art. In a general sense, a reference is proven to be a “printed publication” upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it.<sup>8</sup>

24. MPEP §2128 confirms that an electronic publication, including an online database or Internet publication, is considered to be a “printed publication” within the meaning of 35 U.S.C. 102(a) and (b), provided the publication was accessible to persons concerned with the art to which the document relates. Indeed, in *In re Wyer*, the court stated: “Accordingly, whether information is printed, handwritten, or on microfilm or a magnetic disc or tape, etc., the one who wishes to characterize the information, in whatever form it may be, as a ‘printed publication’ \*\*\* should produce sufficient proof of its dissemination or that it has otherwise been available and accessible to persons concerned with the art to which the document relates and thus most likely to avail themselves of its contents” (citation omitted).<sup>9</sup>

25. As regards the level of public accessibility required, the court ruled that a single copy of a doctoral thesis indexed and shelved in a library is sufficiently accessible to the public to constitute prior art as a “printed publication.”<sup>10</sup> Even if access to the library is restricted, a reference will constitute a “printed publication” as long as a presumption is raised that the portion of the public concerned with the art would know of the invention.<sup>11</sup> However, in *In re Cronyn*, where doctoral theses were shelved and indexed by index cards filed alphabetically by student name and kept in a library and where the index cards only listed the student names and titles of the theses, two of three judges held that the students’ theses were not accessible to the public, since they could only be found if the researcher’s name, which bears no relationship to the subject of the thesis, was known.<sup>12</sup>

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<sup>7</sup> The United States Internet Usage Policy, 64 F.R. 33056 (June 21, 1999).

<sup>8</sup> Manual of Patent Examining Procedure (MPEP), §2128, The United States Patent and Trademark Office.

<sup>9</sup> *In re Wyer*, 655 F.2d 221, 227, 210 USPQ 790, 795 (CCPA 1981).

<sup>10</sup> MPEP §2128.01; See also *In re Hall*, 781 F.2d 897, 228 USPQ 453 (Fed. Cir. 1986).

<sup>11</sup> MPEP §2128.01; See also *In re Bayer*, 568 F.2d 1357, 196 USPQ 670 (CCPA 1978).

<sup>12</sup> MPEP §2128.01; See also *In re Cronyn*, 890 F.2d 1158, 13 USPQ2d 1070 (Fed. Cir.1989).

26. However, if documents, intended to remain confidential, are distributed internally within an organization, they are not “printed publications” no matter how many copies are distributed.<sup>13</sup>

(b) Date of availability

27. According to MPEP §2128, prior art disclosures on the Internet or an online database are considered to be publicly available as of the date the item was publicly posted. If the publication does not include a publication date (or retrieval date), it cannot be relied upon as prior art under 35 U.S.C. 102(a) or (b), although it may be relied upon to provide evidence regarding the state of the art.

28. As a general rule, in order to establish the date on which a certain publication became accessible to the public, evidence showing routine business practices can be relied upon to prove accessibility. Specific evidence showing a particular date of cataloging and shelving of the publication is not always necessary.<sup>14</sup>

(c) Citation

29. According to Article 10 of the “Internet Usage Policy,” all Patent Organization users of the Internet for patent application searches shall document their search strategies in accordance with the practices and procedures established in MPEP §719.05 subsection I.(F). The MPEP sets up detailed rules for recordation of the field of search and search results by the examiners. Office copies of an electronic document must be retained if the same documents may not be available for retrieval in the future.<sup>15</sup> The MPEP stipulates that this is especially important for sources such as the Internet and online databases.

30. As regards the format of the citation of an electronic document that can be retrieved from an online source or sources found on electronic storage media, the USPTO follows the WIPO Standard ST.14 (Recommendation for the Inclusion of References Cited in Patent Documents).<sup>16</sup>

(d) Search via the Internet and confidentiality

31. Article 9 of the “Internet Usage Policy” states that, when the Internet is used to search, browse, or retrieve information relating to a patent application, other than a reissue application or reexamination proceeding, Patent Organization users MUST restrict search queries to the general state of the art unless the Office has established a secure link over the Internet with a specific vendor to maintain confidentiality of the patent applications. Non-secure Internet search, browse, or retrieval activities that could disclose proprietary information directed to a specific application, other than a reissue application or reexamination proceeding, are NOT permitted. The same policy applies to the use of the Internet as a communication medium for connecting to commercial database providers.

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<sup>13</sup> MPEP §2128.01; See also *In re George*, 2 USPQ 2d 1880 (Bd. Pat. App & Inter. 1987).

<sup>14</sup> MPEP §2128.01; See also *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 7 USPQ 2d 1057 (Fed. Cir.).

<sup>15</sup> MPEP §2128.

<sup>16</sup> MPEP §707.05(e).



C. European Patent Convention (EPC)

32. Article 54(2) of the EPC defines “prior art” as follows:

“The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the filing of the European patent application.”

A decision of the Enlarged Board of Appeal of the European Patent Office (EPO) states that “... Article 54(2) EPC does not make any distinction between the different means by which any information is made available to the public...” (G1/92, OJ 1993, 277). However, to date, neither specific provision nor case law concerning a disclosure on the Internet and its prior art effect can be found. In absence of explicit provision and guidelines, the following paragraphs provide general interpretation of Article 54(2) EPC which may help answering to the questions of legal validity of Internet disclosures.

(a) “Everything made available to the public”

33. The Board of Appeal case law has it that the theoretical possibility of having access to information renders it available to the public (T 444/88), whatever the means by which the invention was made accessible, and in the case of prior use irrespective of whether there were particular reasons for analyzing the product (G 1/92, OJ 1993, 277). In T 381/87 (OJ 1990, 213), the Board took the view that if a document in a library “would have been available to anyone who requested to see it” on a particular day, this was sufficient to establish that the document has been “made available to the public” on that day. It is not necessary as a matter of law that any member of the public would actually have been aware that the document was available on that day, or that any member of the public had actually taken note of it.

34. Over the years, the Boards have elaborated a clear definition of “the public.” Information is said to be “available” to the public if only a single member of the public is in a position to gain access to it and understand it, and if there is no obligation to maintain secrecy.<sup>17</sup> It is not necessary to prove that others also have knowledge of the relevant article. In the opinion of the Board, this is also the case when the article is sold to a person not skilled in the art (likewise T 953/90, T 969/90 and T 462/91), or where information has been made available to a limited circle of persons (T 877/90 congress; T 228/91 course; T 292/93 demonstration for potential customers conducted on the premises of a company with close links to the opponent).

35. According to T 877/90 and T 406/92, the word “public” in Article 54(2) EPC does not necessarily refer to the man in the street: a disclosure before a skilled person makes it “public” in the sense that the skilled person is able to understand the disclosure and is potentially able to distribute it further to other skilled members of the public.

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<sup>17</sup> This was the opinion in T 482/89 (OJ 1992, 646), where the Board held that a single sale was sufficient to render the article sold available to the public within the meaning of Article 54(2), provided the buyer was not bound by an obligation to maintain secrecy.

(b) “In any other way”

36. As regards availability to the public “in any other way” under Article 54(2) EPC, the “Guidelines for Examination in the EPO,” Part D, Chapter V, 3.1.1, provide examples such as the demonstration of an object or process in specialist training courses or on television. They further provide that availability to the public in any other way also includes all the possibilities of making available the aspect of the state of the art concerned that technological progress may subsequently offer.

(c) Evidence of availability

37. The facts on which the decision is based must have been established to the satisfaction of the deciding body. The EPO generally applies the standard of the “balance of probabilities,” i.e., they are satisfied on the basis that one set of facts is more likely to be true than the other. A question arises as to what degree of satisfaction is necessary. In T 750/94 (OJ 1988, 32), the Board was of the opinion that, when an issue of fact is being examined and decided by the EPO on the balance of probabilities, the more serious the issue, the more convincing must the evidence be to support it. If a decision upon such an issue may result in the refusal or revocation of a European patent, for example in a case concerning alleged the prior publication or prior use, the available evidence in relation to the issue must be critically and strictly examined. A European patent should not be refused or revoked unless the grounds for refusal or revocation (the legal and factual grounds) are fully and properly proved.

38. As regards the contents and time of disclosure, reference can be made to the “Guidelines for Examination in the EPO,” Part C, Chapter IV, 5.2 and Part C, Chapter VI, 7.2. According to these Guidelines, the assumption should generally be made by the search examiner that the contents at the moment of retrieval are the same as those at the alleged publication date. It will be up to the applicant to present counter arguments.

D. Patent Cooperation Treaty (PCT)

39. Rule 33.1(a) of the PCT provides that:

“For the purposes of Article 15(2), relevant prior art shall consist of everything which has been made available to the public anywhere in the world by means of written disclosure (including drawings and other illustrations) and which is capable of being of assistance in determining that the claimed invention is or is not new and that it does or does not involve an inventive step (i.e., that it is or is not obvious), provided that the making available to the public occurred prior to the international filing date.”

40. At the Meeting of International Authorities under the PCT, held from February 17 to 21, 1997, use of the Internet during international search and international preliminary examination was discussed (see documents PCT/MIA/VI/7 and 16). Views were exchanged about the nature of publications on the Internet and the manner of citing them. It was considered to be necessary, if a document was found on the Internet which was not clearly also contained in a printed publication, for the search examiner to print a copy of the document and to record where and when it was found.

## E. Trilateral Cooperation

41. As far as the legal aspects of the information retrieved from the Internet are concerned, the Trilateral Offices had touched upon this subject in 1997, under Project 14.6. One of the questions was a possible conflict with the confidentiality of the patent applications where the Internet was used as a search tool. However, it seems that no concrete discussion have made under the Trilateral Cooperation project.

## V. Possible Issues

### A. Availability to the public

42. In 1997, the International Association for the Protection of Industrial Property (AIPPI) carried out a study entitled “Q. 138A: Confidentiality, disclosure and publication of information in communication networks.”<sup>18</sup> Concerning the disclosure of information in communication networks, the national Groups of AIPPI were invited to indicate the national rules and doctrine defining what was regarded as “available to the public,” to examine how these provisions could be applied to the information in communication networks, whether they were private or publicly accessible networks, and evaluate the technical requirements needed to be fulfilled so that an information network could be regarded as not disclosing the information circulating in the said network.

43. In conclusion, AIPPI adopted a Resolution in 1997, stating that the traditional legal rules provide relevant criteria in order to determine whether the information has been rendered public. However, the Resolution also indicates that:

“AIPPI considers that the mere fact of transmitting information by means of a computerized network will not result in the information becoming available to the public, and in consequence being disclosed. Account should be taken of the level of accessibility to the network, which is determined by, *inter alia*:

- the technical characteristics of the network;
- the method of communication; and
- the access and security provisions.

“For example, although an item of information posted on a World Wide Website is, *prima facie*, available to the public, such information will not be actually available when a secure password is needed to access it; on the other hand, although generally a person to person transmission does not make the information available, such transmissions, when addressed to a group of persons without a confidentiality requirement, may constitute a disclosure.”

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<sup>18</sup> The reports and summaries of the national Groups of the AIPPI are contained in “Q. 138A—Confidentiality, disclosure and publication of information in communication networks: Group Reports,” AIPPI Yearbook 1997/I.

44. There seems to be no doubt that the disclosure on the Internet would constitute prior art as long as accessibility to that information by members of the public interested in the art is guaranteed. The availability of a search engine effective to access the information posted on the Internet, at a relevant prior art time, could be an element of proof.<sup>19</sup> However, to the extent that these tools create only pools of prior art, Adamo states that whether in the form of formal “databases” or otherwise, the lack of identification of a particular piece of cyber art militates against a sustainable anticipation or obviousness position.<sup>20</sup>

45. Moreover, certain technical features of the Internet raise questions concerning accessibility to the disclosed information. First, varying levels of accessibility to the network should be considered. Even for a website that needs a secure password, different levels of requirements to obtain such password, for example whether there is any discriminative measure to obtain a password or not, shall be taken into account. According to Adamo, although an Intranet does not provide public access, if it is accessible to a substantial portion of the population which has ordinary skill in the art, information disclosed on that Intranet should be legally available “public known” prior art, when tested against historic precedent.<sup>21</sup>

46. Second, the question arises whether information exchanged through or within an e-mail, a discussion group, a chat room or a news group should be considered as a prior art disclosure. Unless the e-mail addressees are public groups not bound by secrecy (e.g., discussion groups, newsletter, etc.), it would seem logical to consider that e-mail information is not directly and unambiguously accessible by the public. Such e-mail information could be the information in the e-mail box of the addressees or the information which can be captured by third parties during its transmission.<sup>22</sup> Soma and Nuedeck<sup>23</sup> suggest that a “chat room” and any sort of discussion group may provide a further mechanism to create prior art that may satisfy the “publicly known” criteria, if it qualifies for the “indexing and searchability” test.<sup>24</sup>

47. Another issue might be the case where the information was put on the Internet only for a very short period, and is removed afterwards. As mentioned above, the JPO Guidelines state that information that is not published over a period of time sufficient to allow access by the general public is not considered as being available to the public. Verhulst and Riolo also consider that a short-term disclosure would not be regarded as state of the art, although it would be difficult to prove that the disclosure on the Internet was in fact only present for a short period of time and intended to be a factitious one.<sup>25</sup>

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<sup>19</sup> Patent World (August 1999), Kenneth R. Adamo: “Now you access it, (may be) now you don’t: United States concept of anticipation and obviousness based on cyber art,” pp. 19-24.

<sup>20</sup> *Ibid.*, p. 21.

<sup>21</sup> *Ibid.*, p. 21.

<sup>22</sup> *Ibid.*, p. 21.

<sup>23</sup> Journal of the Patent Office Society, vol. 78, John T. Soma and Alexander J. Nuedeck: “The Internet and the single document rule: searching for the four corners of the electronic paper,” pp. 751-788.

<sup>24</sup> *Ibid.*, pp. 764-765.

<sup>25</sup> Op. cit. in Note 2, above, p. 18.

B. Contents and date of disclosure

48. Where the information is disclosed on the Internet in parallel to a corresponding paper publication, the Office may simply cite a paper publication as prior art in order to avoid any disputes in terms of its contents and date of disclosure. However, where the information is only disclosed on the Internet, the fact that electronic documents on the Internet are more vulnerable to alteration than paper publications may need to be taken into account. Does the level of proof for information published on the Internet need to be different from the principles established for paper publications? It seems that, as a general rule, where lack of novelty is alleged during the examination procedure, the burden of proof to demonstrate that the information in question was made available to the public before a certain date lies on the Patent Office. Once such allegation has been made, it is for the applicant to provide facts rebutting the *prima facie* prior art status.

49. However, in certain cases, since it could be difficult for the Patent Office to provide enough evidence to support a *prima facie* assumption that particular information was published on the publication date of the Internet disclosure, both the Guidelines of the JPO and the MPEP of the USPTO provide precautions when citing such information. As in the case of the JPO, Verhulst and Riolo subdivide Internet disclosures into two groups according to the credibility of the reliability of the date of disclosure and integrity of the contents.<sup>26</sup> They suggested that, for less reliable group, it could be easy for the applicant to reverse the burden of proof. Although there exist technical means to ensure the authenticity and integrity of the information on the Internet, such as a notary system or the Digital Object Identifier, those systems would not become mandatory requirements for the information on the Internet to be accepted as prior art.

50. Due to the nature of Internet disclosures, many web pages provide “hyperlinks” to other web pages. Verhulst and Riolo argue that the same criteria as for a paper citation which refer to another paper could then be used.<sup>27</sup> For example, according to the Guidelines for Examination in the EPO, Part C, Chapter IV, 7.1, if a document refers explicitly to another document as providing more detailed information on certain features, the teaching of the latter may be regarded as incorporated into the document containing the reference (see T 153/85, OJ 1-2/1988,1), if the document referred to was available to the public on the publication date of the document containing the reference.

51. MPEP of the USPTO §2131.01 states that, as a general rule, only one reference should be used in making a rejection under 35 U.S.C. 102. However, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to:

- (i) prove the primary reference contains an “enabled disclosure”;
- (ii) explain the meaning of a term used in the primary reference; or
- (iii) show that a characteristic not disclosed in the reference is inherent.

Soma and Neudeck suggest that the questions relating to hypertexts could be analyzed by examining the “doctrine of incorporation by reference,” although the case law in this area is

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<sup>26</sup> Op. cit., in Note 2, above, p. 20.

<sup>27</sup> Op. cit., in Note 2, above, p. 17.

primarily concerned with the incorporation of material into patent applications to satisfy the requirements of 35 U.S.C. §112 (specification).<sup>28</sup>

C. Others

52. Both the USPTO and the JPO are aware that, in the Internet environment, the security issues concerning transmission and capture of search results by third parties are not completely resolved. Both Offices take measures to ensure the confidentiality of unpublished applications, although the level of precaution seems to be slightly different.

53. Further, both in Japan and in the United States of America, the grace period provision explicitly covers disclosure on the Internet. In addition, AIPPI states in its Resolution on Q.138A:

“In view of the increased necessity of using the new means of communication, and the increased pressure to publish earlier, the introduction of a general grace period preceding the Paris Convention priority should be reconsidered along the lines previously advocated by AIPPI (in Q.75).”

54. Although this issue may be outside the scope of this document, in many countries, public use, sale or display of an invention before the filing date also constitutes prior art. For a certain kind of inventions, for example software-related inventions using the Internet network, a website might itself become prior art.

VI. Conclusion

55. With due regard to what is set out in the preceding paragraphs, the SCP is invited to express in what way work should be continued with a view to supplementing the existing legal principles and practices set out in the paper environment. In particular, consideration should be given to the possibility that the future SCP agenda concerning further harmonization of patent law in general may include a question regarding the definition of “prior art”, i.e., what constitutes prior art (see document SCP/4/2). In accordance with the decision made at the first session of the SCP, the Committee is also invited to consider whether other issues in the context of patents and the Internet should be included.

[Annex follows]

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<sup>28</sup> Op. cit., in Note 23, above, pp. 777-783. Intended to save time and space, the “doctrine of incorporation by reference” is used to enable one document to become part of another by reference and to take effect as if the former clearly outlined the latter.

ANNEX

List of References Relating to Disclosure of Information  
on the Internet and its Impact on Patentability

Patent World (December 1999), Wim Verhulst and Joseph Riolo: “Prior Art Disclosure on the Internet: a European Perspective, Part 1: The Internet as prior art,” pp. 19-22.

Patent World (February 2000), Wim Verhulst and Joseph Riolo: “Prior Art Disclosure on the Internet: a European Perspective, Part 2: The Internet as prior art,” pp. 16-20.

Florida Law Review (April 1999), Max Stul Oppenheimer: “*In vento scribere*: the intersection of cyberspace and patent law,” pp. 230-270.

Patent World (August 1999), Kenneth R. Adamo: “Now you access it, (may be) now you don’t: United States concept of anticipation and obviousness based on cyber art,” pp. 19-24.

Journal of the Patent Office Society, vol. 78, John T. Soma and Alexander J. Nuedeck, “The Internet and the single document rule: searching for the four corners of the electronic paper,” pp. 751-788.

Q.138A—Confidentiality, disclosure and publication of information in communication networks: Group Reports, AIPPI Yearbook, 1997/I.

The United States Internet Usage Policy, 64 F.R. 33056 (June 21, 1999).

Manual of Patent Examining Procedure (MPEP), §2128, The United States Patent and Trademark Office.

Operational Guidelines on Treatment of Technical Information Disclosed on the Internet as Prior Art, Japanese Patent Office.

Operational Guidelines on Treatment of Exceptions to Lack of Novelty of Inventions, Japanese Patent Office.

[End of Annex and of document]