

1 Community Patent Review

Against the backdrop of an increasing number of patent applications and a prolongation of waiting period for a first action, prompt and precise patent examination is nowadays desired in all countries of the world along with the maintenance and improvement of the quality of patent examination. Against such background, movements to consider Community Patent Review (CPR) have been making progress in recent years with the aim of further improving the efficiency and quality of patent examination by promoting public-private work-sharing in patent examination. CPR is a system where a community consisting of ordinary people such as researchers and engineers conducts reviews including a submission of prior art and a posting of comments as materials to be used for the patent examination through the Internet.

This study was conducted in order to investigate and analyze the effectiveness of CPR in Japan by implementing CPR on a trial basis as well as to conduct surveys on CPR-related legal systems and the implementation status of CPR in the United States.

I Introduction

Against the backdrop of an increasing number of patent applications, prompt and precise patent examination, including shortening of the waiting period for patent examination, along with the maintenance and improvement of the quality of patent examination, is nowadays desired in all countries of the world, including Japan. On the other hand, technologies have become more sophisticated and complicated due to rapid technological development, etc., and against the backdrop of the progress of information and telecommunications technology and the globalization of innovation, etc., useful information about technologies has become scattered around the world in various forms, such as patent documents, papers, books, etc. Against such background, countries, including Japan, are working on various measures to grant rights promptly while maintaining and improving the quality of patent examination. As one of such measures, movements to consider Community Patent Review (hereinafter referred to as “CPR”) have been making progress in recent years with the aim of further improving the efficiency and quality of patent examination by promoting public-private work-sharing in patent examination.

In CPR, a community consisting of ordinary people, including researchers, engineers, etc. at companies, universities, etc., conducts a review of a patent application (presentation of prior art and offering of comments, discussions, etc.) on the Internet. Then, the community submits documents, etc., which have been determined to

be useful prior art as a result of the review, to the patent office as materials to be used for examination. CPR is a new mechanism in the intellectual property system. CPR is now being implemented in the United States on a trial basis, and it may be positioned as one of the global infrastructures for maintaining and improving the quality of patent examination in the future.

Thus, this study was conducted in order to investigate and analyze the effectiveness of CPR in Japan as well as to conduct surveys on CPR-related legal systems and the implementation status of CPR in the United States.

II Current Conditions and Status of Consideration in Japan Toward Trial Implementation of CPR

1 Current conditions in Japan toward trial implementation of CPR

(1) Increasing number of applications waiting for examination and prolongation of waiting period for examination

The number of applications waiting for examination (accumulated stock of applications to be examined) is increasing year by year due to the recent increase in the number of patent applications, more complicated and sophisticated content of patent applications and shortening of the period for filing a request for examination from seven to three years (lump of requests), etc. For example, the number of applications waiting for examination reached 888,000 in fiscal 2007. In addition, the period for waiting examination is

becoming longer along with the increase in the number of applications waiting for examination, and the average period was 27 months in fiscal 2007.

(2) Maintenance and improvement of the quality of patent examination

While efforts are being made to increase the speed and efficiency of patent examination, maintenance and improvement of the quality of patent examination is also desired. Behind this is the fact that there are increasing patent infringement lawsuits in which a defense of invalidation of a patent is made and the court determines that the patent is to be invalidated and the fact that the rate of requests for a trial for invalidation accepted by the JPO and the rate of cases of seeking rescission of the JPO decision to the effect that the patent is to be invalidated in which the court rescinds the JPO decision are high. These facts show a difference in the determination of the validity of rights between the Examination Departments and the Appeals Department within the JPO and between the JPO and the court, and do not necessarily serve as a direct measure for the quality of patent examination. However, maintenance and improvement of the quality of patent examination is desired from the perspective of realizing consistently stable granting of rights throughout examination, trial and court procedures.

(3) Submission of Information by Third Party

Active utilization of the knowledge of people outside the JPO through the Submission of Information by Third Party (Articles 13-2 and 13-3 of the Regulation of the Patent Act) and so on is anticipated for the purpose of achieving a good balance between the speeding up of patent examination and the maintenance and improvement of quality of patents. Regarding the current status of use of the Submission of Information by Third Party, the number of cases using the system has increased year by year due to abolition of the patent opposition system, etc., and it reached over 7,000 in fiscal 2007. In addition, 76% of the information provided was used in notices of reasons for refusal (result of a survey on applications examined in January 2007).

(4) Non-patent documents

At present, technical information that contributes to patent examination exists not only in the form of patent documents but also in the

form of papers, magazines, etc. (hereinafter referred to as “non-patent documents”). Owing to the development of the Internet and information and telecommunications technology, technical information exists in various forms. In such circumstances, the number of cases in which non-patent documents are used in patent examination is on the increase. On the other hand, non-patent documents exist in a wide variety of forms, including papers, magazines, books and articles on the Internet, and are more difficult to access than patent documents.

2 Status of consideration of CPR

Under the current conditions surrounding the patent system, including increasing accumulated stock of applications to be examined and prolongation of the waiting period for examination, as mentioned above, in Japan, the Intellectual Property Strategy Headquarters and the study groups of the JPO, etc. are also advocating the importance of CPR and holding discussions toward introducing CPR in light of its implementation on a trial basis in the United States.

III Laws and Regulations/Systems Relating to CPR

It is necessary to take relevant laws and regulations/systems into account in implementing CPR. As the existing CPR-related laws and regulations/systems in Japan, there is the Submission of Information by Third Party whereby a third party can submit prior art documents, etc. to the JPO. In addition, in CPR, the members of the general public present prior art information, including technical documents, on the Internet, and the handling of prior art information becomes a problem in relation to the Copyright Act, depending on the nature of the prior art information. On the other hand, as CPR-related laws and regulations/systems in the United States, there are third party submissions in published application, protest, duty of disclosure and copyright law.

IV Outline of CPR (Peer to Patent) in the United States

Peer-to-Patent is operated by the Center for Patent Innovations of the New York Law School. On the other hand, the United States Patent and

Trademark Office (hereinafter referred to as “USPTO”) adopts the Peer-to-Patent project as one of the strategic initiatives that are implemented to improve and rationalize the review process of patent applications, and is taking a stance of providing cooperation for said project. For example, the USPTO cites cooperation for said project in the next Strategic Plan. In addition, many companies, etc. are participating in said project as sponsors.

Peer-to-Patent provides a web-based system that connects technical specialists and the USPTO examiners/patent examination process, with the use of network technology. Specifically, it provides a place for open communities, in which participants from the public (hereinafter referred to as “reviewers”) conduct reviews of patent applications, by opening a portal site (<http://www.peertopatent.org/>) on the Internet. Then, the following are mainly conducted thorough the site.

- Placement of a list and content of patent applications subject to review on the Web
- Uploading of prior art and placement of the outline thereof on the Web
- Discussion about patent applications among reviewers
- Evaluation of prior art
- Submission of influential prior art to the USPTO

Peer-to-Patent is currently in the second year of trial implementation, and the final results thereof have yet to be obtained. However, the Center for Patent Innovations, which is the implementing agency of the project, stated as follows with regard to the results of the first year of the trial implementation: “Data from the first year of the Peer-to-Patent pilot shows that an open network of reviewers can improve the quality of information available to patent examiners and that such citizen-reviewers are capable of producing information relevant to the patent examination process and are willing to volunteer time. Initial results based on a survey of patent examiners from the USPTO suggest that information provided by the public is beneficial to the examination process.” In addition, Professor Noveck, the project leader of Peer-to-Patent, said: “As the first example of harnessing public knowledge to improve a government process, the first year of Peer-to-Patent was an unquestioned success” and “While the impact of this project on patent quality

will take longer to assess, the early indications are certainly promising.”

V Trial Implementation of CPR in Japan

1 Method of trial implementation

(1) Outline of the trial implementation of CPR

In implementing CPR on a trial basis in Japan, the method of the trial implementation was determined in light of the method of the trial implementation of CPR in the United States, which is the precedent mentioned in the previous chapter, and discussions at the committee. The figure below shows the outline of CPR, which was implemented on a trial basis in Japan.

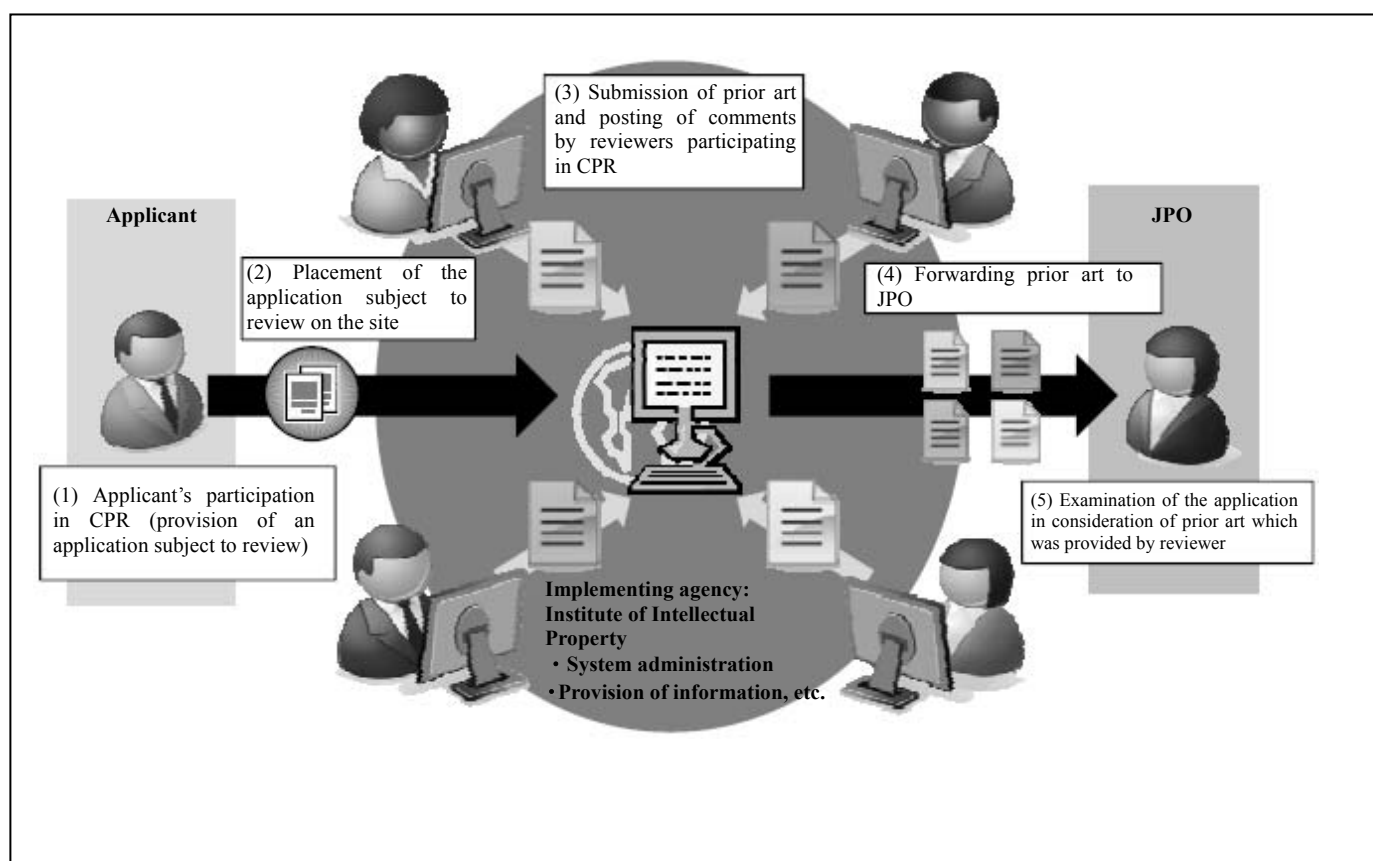


Figure 1 Outline of the trial implementation of CPR

(2) Period of the trial implementation

CPR was implemented on a trial basis from July 16, 2008 to December 8, 2008. The acceptance of applications for participation as reviewers started on June 20, 2008 prior to the trial implementation of CPR.

(3) CPR site

In order to implement the aforementioned CPR on a trial basis, a portal site was opened on the Internet.

(4) Reviewers

Those who wish to conduct a review, including submission of prior art and offering of comments, with regard to an application subject to review, which is placed on the CPR site, participate in CPR as reviewers on a voluntary basis.

(5) Applications subject to review

Applicants who wish to put their patent applications into review by the public offer the patent applications.

Applications subject to review were patent applications that belong to technical fields in the

information technology (computer, software, network, etc.), taking into account the status of trial implementation in the United States and the property of the technical fields, etc. In addition, in consideration of the purpose of CPR, applications for which a request for examination has already been filed, those which have already been laid open, those for which a request for accelerated examination has not been filed and those for which examination has not been started were made subject to review.

(6) Method of review

The next topic is the method whereby reviewers who applied for participation conduct review of applications subject to review on the CPR site. Incidentally, the term "review" in this trial implementation of CPR means evaluation as to the novelty (Article 29(1) of the Patent Act) and inventive step (Article 29(2) of the Patent Act) of applications subject to review. Specifically, that means submission of prior art that can serve as grounds for rejecting the novelty and inventive step of patent applications and posting of comments thereon, as well as the understanding of the content of patent applications.

(i) **Placement of applications subject to review on the CPR site**

Applications subject to review, which were provided by applicants, are placed on the CPR site on the starting date of review set with respect to each application, in order to put the applications into review by reviewers. In addition to the content of each application (bibliographic items and the scope of claims), electronic data of publication of each patent application is placed on the CPR site. Moreover, the status of review of applications by reviewers (number of reviewers who have conducted review, the content and number of prior art submitted and comments posted) is also placed on the CPR site together with patent applications.

With regard to the inspection of the content of patent applications subject to review and the status of review on the CPR site, it was made possible to choose between limiting the inspection to reviewers who applied for participation and making available for public inspection (hereinafter referred to as “publication to the public”), with respect to each application subject to review, according to the intention of each applicant. That is, patent applications subject to review for which the applicant desires the former choice are placed only on a webpage to which access is restricted by IDs and passwords that have been given to reviewers who applied for participation. In the case of the latter choice, patent applications are placed on a webpage to which access is not restricted.

(ii) **Period of review**

The period for which patent applications are put into review by reviewers was set to be three months for each application, taking into account the method of trial implementation in the United States and the period of analysis of the results of this trial implementation of CPR.

(iii) **Submission of prior art**

Reviewers can submit relevant prior art based on the understanding of the content of patent applications. Reviewers submit prior art by sending an e-mail stating the bibliographic items (title, information source such as a link, statements concerning relevance, etc.) of prior art, which they intend to submit, to the e-mail address set with respect to each application. Then, the bibliographic items of prior art that have been submitted by reviewers via e-mail are placed on the CPR site together with the submitters (user names).

(iv) **Posting of comments**

Reviewers can post comments on applications subject to review and comments on prior art that has been submitted by other reviewers. A reviewer who intends to offer a comment does so by inputting the comment on a webpage set up for each application. Comments that have been posted by reviewers are placed on the CPR site in real time together with the submitters (user names).

(7) Submission of Prior Art to the JPO

For prior art that has been submitted by a reviewer, its content, eligibility, etc. are considered by the implementing agency in consideration of comments posted. Then, prior art that has been considered to be contributory to examination by a JPO examiner is forwarded to the JPO, under the Submission of Information by Third Party (Article 13-2 of the Regulation of the Patent Act).

(8) Examination by a JPO examiner

An patent application for which prior art that has been submitted by a reviewer has been forwarded to the JPO based on the Submission of Information by Third Party is examined by a JPO examiner in the same manner as ordinary patent examination.

(9) Questionnaire survey

In order to hear needs and opinions concerning CPR and obtain analytical materials, such as the effectiveness of CPR, a questionnaire survey was conducted targeting reviewers and applicants who participated in CPR, and examiners who took charge of examination of patent applications subject to review after the completion of the review of applications in CPR.

VI Results of the Trial Implementation of CPR and Analysis Thereof

1 Outline of the results of the trial implementation

The following table shows the outline of the results of the trial implementation of CPR in Japan. In addition, it is difficult to accurately compare the results of the trial implementation of CPR in Japan and the United States since the scheme of the trial implementation of CPR differ between Japan and the United States. However, the results of the first year of the trial implementation in the United States are also shown in the table.

Table 1 Results of the trial implementation in the United States and Japan

	United States	Japan
Access to the site		
# of persons who visited the site	More than 40,000	11,950
Participants		
Total # of reviewers	2,092	253
Total # of applicants	13 companies (including three individuals)	16 companies ^(*1)
Total # of applications subject to review	40	39
Results of review		
# of reviewers who actually conducted review among all reviewers (percentage)	365 (about 17%)	22 (about 9%)
Total # of prior art submitted	173	137
Total # of non-patent documents among prior art submitted (percentage)	96 (about 55%)	17 (about 12%)
Total # of comments that were posted	395	11
Submission of prior art to the patent office		
# of applications subject to review for which prior art was forwarded to the patent office	36	37
Total # of prior art forwarded to the patent office (hereinafter referred to as “forwarded documents”)	168	120
Results of examination by the examiners of the patent office		
Total # of applications subject to review for which a first action was issued	36	35
Total # of applications subject to review for which a notice of reasons for refusal ^(*2) citing forwarded documents was issued	13	13
Total # of forwarded documents that were cited in notices of reasons for refusal	14	19
Total # of applications subject to review for which a notice of reasons for refusal citing forwarded non-patent documents was issued	8	0

2 Analysis of the results of the trial implementation

In the trial implementation of this time, the number of participating reviewers, the number of applicants and the number of applications subject to review exceeded the numbers envisioned at the threshold of the trial implementation. Thus, it is possible to say that the trial implementation obtained certain results from a quantitative

standpoint. In addition, it is also possible to say that CPR brought about certain effect in terms of contribution to examination since prior art submitted through CPR was cited in 13 first actions (notices of reasons for refusal) out of 39 applications subject to review.

However, various problems also became apparent through the trial implementation of this time. The next figure shows those problems and the outline of the direction of problem-solving.

(*1) Including one affiliate company and one company that is a joint applicant.

(*2) For the United States, Office Action. The same applies hereinafter.

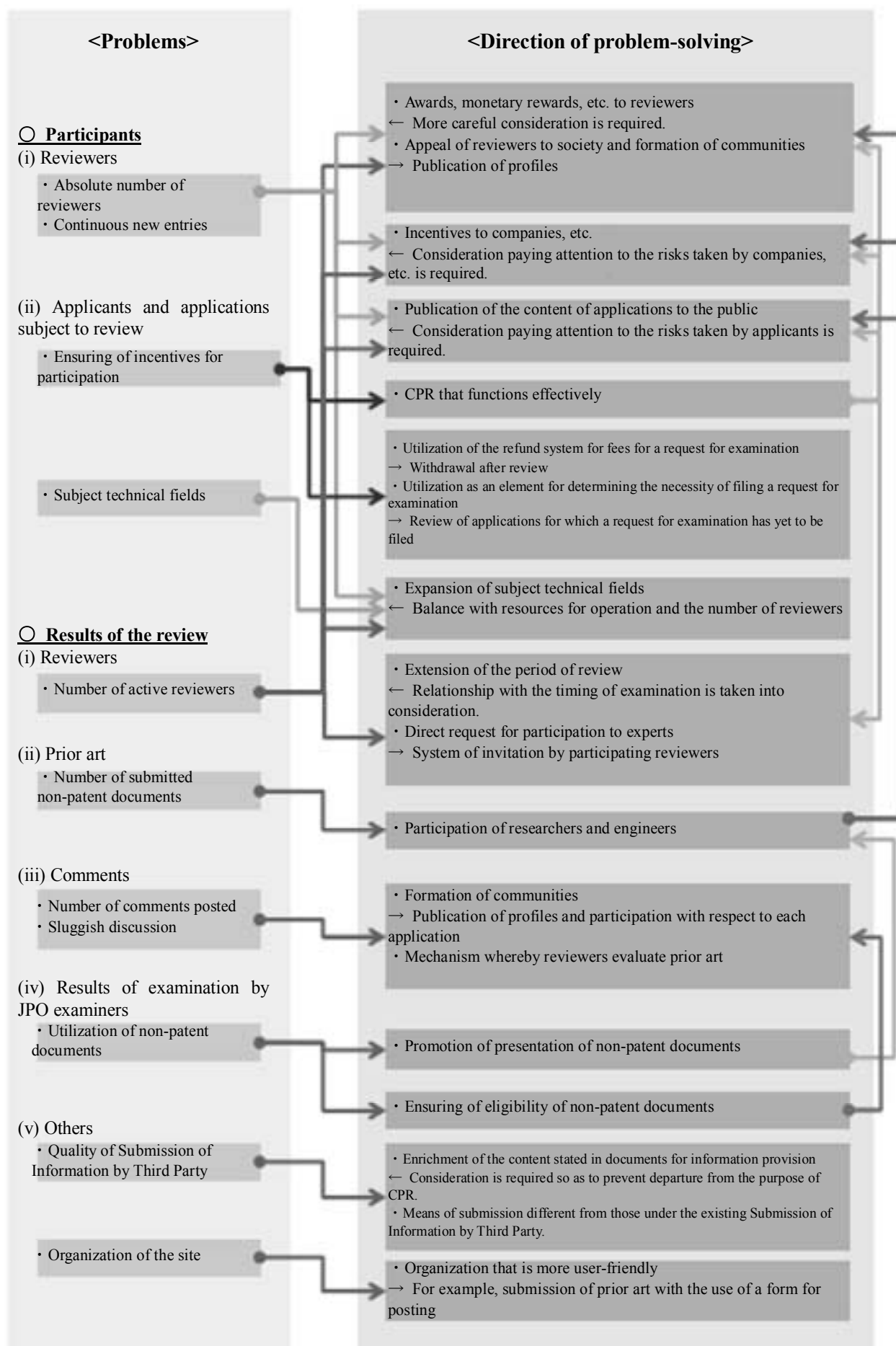


Figure 2: Problems and the direction of problem-solving

Ⅶ Conclusion

253 reviewers participated in the CPR that was implemented on a trial basis in Japan, for 39 applications subject to review, which were provided by 16 applicants (companies). The reviewers conducted review, including submission of prior art and posting of comments. As specific results of the review, 137 prior arts were submitted for 38 applications subject to review, and of which, 120 prior arts were forwarded to the JPO with the use of the Submission of Information by Third Party. In terms of the results of examination by JPO examiners in consideration of prior art submitted by reviewers, 19 prior arts submitted through CPR were cited in notices of reasons for refusal for 13 applications subject to review.

In addition, according to the results of a questionnaire survey targeting applicants and JPO examiners who participated in the trial implementation of this time, many of them could obtain useful information, including prior art, etc. that is highly relevant to their applications, through CPR. Moreover, many of them expressed positive opinions in response to the question of whether they think CPR is effective in maintaining and improving the quality of patent examination. Therefore, taking into account the evaluation of CPR by applicants or JPO examiners as well as the fact that some prior art submitted through CPR was used in examination by JPO examiners, it is possible to say that certain effect was obtained through CPR that was implemented this time on a trial basis, and thus, the effectiveness of CPR could be inferred. On the other hand, various problems in CPR became clear through the trial implementation of this time. The following two problems are cited as especially major.

The first problem is the number of participating reviewers. Although 253 reviewers participated in the trial implementation of this time, only 22 reviewers actually conducted review, including submission of prior art or posting of comments. The number of such reviewers was not sufficient in any sense. CPR is premised on voluntary review, including submission of prior art and posting of comments, by reviewers. Participation of a considerable number of reviewers and active review by reviewers are necessary for more appropriate and sufficient review. Therefore, it seems to be necessary to make improvements for promoting review as well as for increasing the number of participating

reviewers.

In order to have more people participate in CPR as reviewers, various improvements are possible, including incentives to reviewers or applicants, more active and extensive outreach activities and publication of applications subject to review to the public. In addition, formation of deeper communities is cited as one of the examples of a mechanism for activating review, in addition to the aforementioned measures to promote participation of reviewers. In the trial implementation of this time, only 11 comments were offered by reviewers. This means that hardly any discussion was held among reviewers, and one of the possible causes thereof is failure to form communities among reviewers. Therefore, one idea is to form communities visually by making it possible to participate in CPR with respect to each application subject to review and grouping reviewers who wish to conduct review of the application subject to review (community), in order to create an environment that facilitates discussion among reviewers. In doing so, publication of profiles of reviewers provides material for knowing each other, and is considered to be contributory to the formation of communities. Then, the formation of communities serves as an incentive to reviewers and leads people to participate in CPR. On the other hand, taking into account the individual and specific content of applications subject to review, participation of experts who are familiar with the technical content of applications subject to review as well as key persons is also necessary to activate review. For this purpose, it will probably be necessary to make improvements, including specifying experts, etc., inviting them to participate in CPR as reviewers, and publishing applications subject to review to the public.

The second problem is the number of non-patent documents. In the trial implementation of this time, most of the 137 prior arts that were submitted by reviewers were patent documents, and only 17 were non-patent documents. If the basic concept of CPR is aimed at the discovery of prior arts related to applications, all kinds of documents are included in the prior art. Therefore, difference in the number of prior arts by the kind of prior art is not a very large problem. In addition, even for patent documents, if they are submitted through CPR and are utilized in examination at the JPO, the effect of CPR can be affirmed to a certain extent.

However, in the questionnaire survey targeting applicants, many answered that they expected the presentation of non-patent documents, including academic documents, magazines and books, in CPR. Moreover, JPO examiners mainly conduct search of patent documents in the ordinary examination scheme, and if they have sufficient knowledge of patent documents, submission of patent documents through CPR seems not to lead to the improvement of the quality of examination though it increases the efficiency of examination. Then, in the current situation in which it is more difficult to access non-patent documents, submission of non-patent documents by public knowledge is desired, and it will further increase the effectiveness of CPR.

In order to increase the number of non-patent documents presented, more active participation of researchers and engineers is considered to be necessary. In addition, from the fact that many applicants who expect the submission of non-patent documents express desire for the participation of researchers and engineers, it is presumable that the participation of researchers and engineers will lead to an increase in the number of non-patent documents. Though there was a difference in the attribute of participating reviewers between the United States and Japan, whether or not applications subject to review are published to the public is cited as one of the reasons for the difference. That is, in the case where applications subject to review are not published to the public, people cannot see the specific content of applications and the actual status of review unless they participate as a reviewer. Even in such an environment, some IP experts will be interested in CPR as a new mechanism relating to intellectual property, which is their area of expertise, and participate in CPR, even without seeing the specific content of applications. However, as researchers and engineers do not have any information and knowledge on the patent system itself as well as on CPR on a daily basis, they seem to be hardly likely to have an interest in CPR in the situation where they cannot understand the substance of CPR.

Therefore, in order to solve the aforementioned problem of the number of participants as reviewers, it is particularly necessary to make improvements to promote the participation of researchers and engineers. For this purpose, the aforementioned various

improvements to promote participation as reviewers should be considered, and in particular, it is necessary to publish applications subject to review to the public in order to promote the participation of researchers and engineers.

Through the trial implementation of this time, CPR in Japan exerted certain effect, and a certain degree of the effectiveness of CPR was confirmed; but it is also true that various problems in CPR were highlighted. However, the results of the trial implementation of this time do not provide any grounds by which CPR in Japan can be directly denied, and it is possible to say that the trial implementation had significance in the point that various problems were understood through the trial implementation.

On the other hand, in the United States, CPR is implemented on a trial basis ahead of other countries in the world, and a certain degree of its effectiveness has already been confirmed. However, the positioning and advantages of CPR originally differ between the United States where the system of the submission of prior art by third parties does not substantially exist and Japan where the Submission of Information by Third Party has been established. Thus, it is impossible to say that successful examples in the United States are immediately applicable to Japan. However, today when patents are occasionally invalidated after their issue while emphasis is placed on patents as intellectual property rights, CPR is sufficiently likely to play an important role in assuring the value or quality of patents. Many reviewers and applicants anticipate the role of CPR. In addition, taking into account the environment surrounding the patent system in which a recent increase in the number of applications waiting for examination and the prolongation of the waiting period for examination are major problems, it is desired that CPR effectively functions as one of the means of maintaining and improving the quality of examination while increasing the efficiency of examination.

Although CPR is now still at the stage of trial implementation in the United States, it is sufficiently likely to make the transition to full-scale operation in the future as it has shown a certain degree of results through continuous trial implementation. In addition, following the precedent in the United States, discussions toward introduction of CPR are ongoing not only in Japan but also in the United Kingdom, and there is the possibility that CPR will extend over all countries of the world and become one of the

global patent examination systems in the future. In preparation for such a case, it is necessary to consider and establish the usefulness of CPR in order to enable Japanese companies, etc. to utilize CPR effectively as one of their intellectual property strategies. Moreover, further consideration of CPR with a view to harmonization with all countries of the world is also desired in order to have CPR positioned as a global infrastructure.

CPR is one type of unprecedented new public-private work-sharing, which brings the knowledge of the private sector into patent administration. Therefore, a certain amount of time may be required, including the time for going through various trials and errors, before CPR functions as a genuinely effective system. However, it is expected that efforts will be made to improve the problems that became clear through the trial implementation of this time and that further discussions will be held to assure the effectiveness of CPR.

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