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IPC REVISION POLICY

*Discussion paper presented by Mr. Siep de Vries, Head, Chemical Division,  
Netherlands Industrial Property Office, Rijswijk, Netherlands*

### Introduction

1. In order for a patent to be valid, most patent laws require that the subject matter of the patent, when compared with the state of the art world-wide, is
  - a) new, and
  - b) not obvious to a person skilled in the art.

For answering the question whether these requirements have been fulfilled, one therefore needs to know the state of the art world-wide. For this purpose it is not sufficient to have (easy) access to everything that has been published. Picking up the relevant state of the art out of a large mass of published documents necessitates the availability of reliable and efficient means for retrieval of specific details from the contents of those documents.

2. In terms of relevant state of the art the contents of published documents are of importance for two reasons:
  - a) they describe phenomena (products, processes) as such;
  - b) the often describe phenomena in terms of a solution to a problem.

Whereas the direct description of phenomena is important for assessing the novelty of later developments, the problem/solution description of these phenomena may make it obvious to a person skilled in the art to solve a similar problem in a similar way.

Both these aspects should therefore be taken care of by the reliable and efficient means for retrieval mentioned in paragraph 1, above.

3. Up to now the use of classification has enabled Patent Offices to bring together patent documents and non-patent literature from all over the world covering the same or at least closely related technical subject matter. The further sorting in order to pick up the relevant state of the art in a given case then has to be carried out by manually checking all the documents bearing the same classification symbol.

Increasingly both patent documents and non-patent literature are made available in a manner which allows to search an abstract of their contents, or even the full text, in machine-readable form. This development opens new possibilities for reliable and efficient retrieval of relevant state of the art.

4. The existing IPC revision policy already emphasizes the possible usefulness of other means for information retrieval. Statement 7 of that policy reads:

If existing commercial data bases that are readily available can meet the search needs in a certain area of the IPC, revision of that area should not be undertaken without good reason.

IPC revision should, of course, never be undertaken without good reason. But with other means for retrieval becoming generally available, there is a need to reassess in which respect(s) classification in accordance with the IPC can offer an indispensable added value.

Key word search

5. The use, for search purposes, of words or expressions with which a product or process is described, is attractive because of its easiness. One does not have to learn artificial terminology or codes first. There are, however, certain limitations.  
One of these limitations is that the words or expressions are taken from one specific language. If documents written in different languages have to be consulted - which inevitably is the case when one is looking for the state of the art world-wide - words or expressions from all those languages are needed for search purposes.  
Another limitation is that already in a single language often a variety of words or expressions can be used to circumscribe the same phenomenon. Using just one word or expression therefore often is not sufficient anyhow.  
A further limitation is that words, and sometimes even expressions, may have a certain meaning in a given context and a different meaning in another context. In such cases a key word search also results in retrieving irrelevant information.
6. In addition, a serious problem is that patent documents have not been drafted for information purposes. Patent applicants as a rule try to give away as little information as possible about the invention made. The use of broad wording, circumscribing rather than defining the contribution to the art, and of a for a technician unusual, e.g. legalistic, terminology, does not help straightforward retrieval through key word searching.
7. The use of standardised terminology would overcome quite a number of the limitations just mentioned. But such standard terminology would first of all have to be internationally agreed upon and then, even more difficult, have to be imposed on everybody presenting technical information. One cannot deny the applicant for a patent the right to describe the scope of the invention in the in his view most appropriate manner. And when new facts or new phenomena are described, existing standardised terminology may well be insufficient.  
The use of standardised terminology can be prescribed more easily in connection with the drafting of informative abstracts which are not legally binding.
8. The big advantage of the use of key words is that one can pick words from the documents themselves as they are published. A key word search therefore can be carried out as soon as the document has been published.  
If one relies on artificial terminology or codes for search purposes, intellectual input is needed to provide search terms for retrieval of relevant content from published documents. Such intellectual input will take time and makes the document involved unsearchable during that time, unless the input already can be given before the publication of the document.  
If the intellectual input given is along standardised lines - which is the main reason to put intellectual effort in - it furthermore will take some time to reach (international) agreement about the manner of standardisation. The full fruits of intellectual effort put into the improvement of the retrieval of relevant information from a document therefore often are reaped only one or more years after the day of publication of the document.

Filtering information

9. Because of the limitations of key word searching mentioned in paragraphs 5 and 6, above, full-text searching through key words so far has not been considered to be the manner of choice for retrieval of all relevant information from a large volume of data. The huge amount of data first has to be narrowed down in such way that retrieval of all the relevant information, or at least nearly all the relevant information, through key word searching becomes far more easy. Compare the classical paper search where one also needs a systematic file rather than a numerical file for search purposes.
10. For more than a century classification has been a much used means by patent offices to make a preselection of documents based on their relevance for the purposes of the particular search to be carried out. See also paragraph 3, above.  
Classification symbols are language-neutral, so the same symbols can be used irrespective the language of the documents concerned. Synonyms are covered by the same classification symbol, but different meanings of a single word can be distinguished through the use of different symbols. Classification symbols also can be used for indicating the presence of certain concepts in the contents of the documents forming the state of the art (see the aspects a) and b) in paragraph 2, above).  
In addition, because intellectual input is needed for correctly classifying a document, someone with technical patent expertise is looking at the contents of what has been described by the patent applicant. Therefore the problem indicated in paragraph 6, above, can be overcome at least in part, since the classifier is well up with the terminology used in a patent application.
11. In the opinion of the Netherlands Industrial Property Office, the use of classification symbols for preselection purposes in connection with a state of the art search has lost nothing of its importance in the electronic age. And when a single classification system, internationally agreed upon, is used by all publishers of technical information in order to allot the relevant classification symbols to the documents to be published, the common effort made will considerably ease and improve the retrieval of the relevant information from a large volume of data published all over the world. The Industrial Property Offices do already set an important example here.

Future of the IPC

12. As can be seen from paragraph 9-11, above, the Netherlands Industrial Property Office sees a future for the International Patent Classification.  
When searching information from documents in electronic form, IPC is a very useful means for sorting a huge amount of data in accordance with the relevance of these data to the question asked. The reduced set of data so obtained can then be further treated with other search methods, in order to pick up the detailed information one is looking for.  
Since the amount of data constituting the state of the art will continue to grow, further development of the IPC as a sorting tool is likely to be needed.
13. When IPC is part of a package of generally available search methods for data in electronic form, the way in which the IPC has to be further developed will inevitably be influenced by other developments in the package.

For this reason the Netherlands Industrial Property Office still feels very sorry that the IPC revision work has been left out of the subject matter for which the Standing Committee on Information Technologies has been made responsible. When one, in connection with a proposal for revision of an area in the IPC, starts to discuss the relative merits of other methods generally available for carrying out searches in the technical field concerned, one clearly stands on ground covered by the SCIT.

14. Further development of the IPC should concentrate on the specific advantages that the IPC can offer in comparison with its partners in the package of generally available search methods. For such advantages, see paragraph 10, above.

How much detail then has to be included in the IPC itself, in all likelihood depends on the technical field concerned. Other search methods generally available for retrieval of data in electronic form sometimes specifically are created for use in certain technical fields.

#### Policy for the seventh revision period

15. When defining the policy for the IPC revision during the seventh revision period, the first question to be answered will be:

Is it still justified to develop the IPC as if its main use is for the creation of systematic files of paper documents for manual search?

As long as the answer to this question is YES, there is a little reason for a basic departure from the present revision policy. It would be sufficient to amend the second policy statement (as the PCIPI Executive Coordination Committee no longer is in existence).

The duration of the seventh revision period could be made dependent on the period during which the said question still gets a positive reply.

16. When the question raised in paragraph 15, above, is answered with NO, rewording of the present policy statements in the opinion of the Netherlands Industrial Property Office is inevitable.

Concerning the existing policy statements, the following remarks can be made:

#### **policy statements 1 and 7**

Where search methods are used in combination, and where use of the IPC symbols is one of the search methods involved, such should be reflected in the policy statement defining the need for revision of the IPC. It is therefore suggested to combine policy statements 1 and 7 into a single statement. As a first attempt, the following wording is proposed:

1. Revision of the IPC, in conformity with the Strasbourg Agreement Concerning the International Patent Classification, is needed when, in order to enable efficient searches to be carried out through combination of IPC with other generally available search methods, such revision would significantly improve the selection of data in accordance with the relevance of those data to the question asked.

#### **policy statement 2**

Some sort of criteria are needed in order to ensure that the resources available do study the problems most in need of being solved. It may, however, be that the so called "persuasive reasons" will play an increasingly important role, since improvement of overall search efficiency becomes a decisive factor (see policy statement 1 as proposed).

No suggestion with regard to the criteria to be applied will be made here. One may keep in mind a remark by Graham Jones in Information World Review, June 1998, pages 19-20:

I do not like to narrow down a search too far: the human brain can make better decisions than a computer about relevance; it is more effective than a computer.

The second policy statement could read as follows:

2. Each revision request should be selected on the basis of the criteria currently agreed upon by the IPC Committee of Experts.

**policy statements 3, 4, and 6**

It seems that these statements can be maintained.

**policy statement 5**

The present policy statement 5 seems strongly linked with the maintenance of a systematic file of paper documents. When searching in electronic databases, one should develop the IPC in the way most suitable for that purpose. It therefore seems that policy statement 5 can be deleted.

17. Since 1983 the Netherlands Industrial Property Office no longer has been active in the PC(I)PI Working Group on Search Information. Therefore no comments will be given on the details of the actual revision procedure. In general, the actual revision procedure is considered to be a good and efficient one. Obviously its description has to be amended as the PCIPI no longer has any responsibility.
18. When the main use of IPC is in connection with the searching of electronic data, the improved search efficiency resulting from an amendment to the IPC should be obtainable as quickly as possible after the adoption of the amendment by the IPC Committee of Experts. Changing the IPC once every five years then is not very effective. Remember that the changes are made to the areas most in need! A copy of the updated IPC can be stored in electronic form in a digital library free for consultation.
19. Using the latest version of the IPC for classifying the contents of newly issued documents is one thing. But what happens to documents already published? Given the improved search efficiency obtainable, one must assume that searching authorities have a strong interest in reclassifying documents available in electronic form, or at least in adding the relevant symbols from the latest version of the IPC to the symbols already allotted to those documents.

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