SEVENTH CONFERENCE OF THE INTERNATIONAL SOCIETY FOR SCIENTOMETRICS AND INFORMETRICS

PROCEEDINGS – 1999

Colima, México, July 5-8, 1999

Sponsored by
Universidad de Colima
México

Edited by
César A. Macías-Chapula

ISSI   UNIVERSIDAD DE COLIMA

Datacib: a New Automatic Tool to Link Scientific Bibliographic References and Technical Information

Faucompré P., Quoniam L., Dou H.

Centre de Recherche Rètrospective de Marseille- Universitè Aix_Marseille 3
FR 13397 Marseille Cedex 20 - e-mail: cmm@crmm.univ-mrs.fr

Abstract

The aim of this poster is to present a software that will automatically introduce a new field in scientific bibliographic references and which is an application of a conceptual research that has been presented in a previous conference. The used algorithm is largely linked to the bibliometrics field, using distributional properties of the suggested links between scientific keywords and the International Patent Classification Catchwords. In a previous paper [1], we had shown how to create a new relation between scientific information and technical information, through a new documentary field which, contains patent classification symbols of this classification.

Obtained results can be analyzed following two different ways. In the case of the relation science-technology, we can observe codes contained in a particular bibliographic reference or, through a more bibliometric and/or scientometric approach, study all the associated codes with this downloaded corpus [2]. We can also get patents, which are classified with the same symbols, i.e. published in the same technical domains. In the case of the relation technologyscience, the initial step can be a particular IPC symbol, or all extracted codes from a set of patent documents and then, the second step, the search of fundamental references linked with these selected codes. References which do not support links have no obvious industrial interest, or they have a too fundamental problematics: their keywords can not be matched with any terms or syntagms of the technical vocabulary from patents.

Obviously, the new established links can not be considered as strong and reliable relations. However, reindexed references are analyzable as all common downloaded corpuses. They show how the simple projection of patent codes about scientific bibliographic references can bring a new industrial representation of more fundamental works. So, they provide a potential interesting articulation between science and technology, in particular for industrial experts. These relations provide presumption of links which are sufficient to create the necessary condition of emergence of something new and, therefore, to bring new relevant matter to the technological watch or to the competitive intelligence.

References

[1] Faucompré P., Quoniam L., Dou H. An effective link between science and technology. *6th Int. Conf. on Scientometrics and Informetrics, Jerusalem, June 16-19, 1997*

[2] Faucompré P., Quoniam L., Dou H. The function-application relation through a double link between indexing-classifying and science-technology. *World patent information, 1997, vol. 19, n° 3, p. 167-174*