Chapter II
An Introduction to Online Data Retrieval and Issues

ABSTRACT

This chapter introduces online citation data retrieval using the Web of Science and Dialog Classic. The Web of Science provides access to multidisciplinary citation index information from approximately 8,700 high impact research journals in the world. Users can navigate to electronic full-text journal articles, with complete bibliographic data, cited reference data, and direct links to the full text. A citation index, developed by The Institute for Scientific Information (ISI), is an alphabetical listing by author of all the references found in footnotes and bibliographies of journals covered in the index. This chapter overviews three search options: general search, cited reference search, and advanced search. The following section provides some useful information about the procedure to retrieve cocitaion frequency counts using Dialog Classic, using the free ONTAP® (ONline Training And Practice) site. This chapter points out several technical limitations of using ISI online citation index databases, including Multiple Authorship: all citation index files permit retrieving records only by last name and initials of first author only. Another limitation is Name-citation records by an author of the same last name and initials may not be authored by the same author. Another limitation is Synonyms: To further complicate matters, the same author's initials can be recorded in many different ways. Some examples of synonym are Keen, P. or Keen, P. G. W. Lee, S. or Lee, S. M.

INTRODUCTION

There are basically two ways of compiling cocitation frequency data. The first approach is retrieval from the Thompson's ISI databases using Dialog software. The second approach is to develop custom databases using database management systems such as Microsoft Access or Foxbase. Spreadsheets can also be used to develop databases and to process the cocitation frequency data. This chapter briefly introduces a way to retrieve the cocitation frequency counts. We will start with citation searching and later co-citation searching. The subsequent two chapters are about the design of custom databases and the development of citation counts generation system, which can overcome most of technical limitation of using the ISI citation index databases and retrieval systems.

CITATION SEARCHING THROUGH THE WEB OF SCIENCE

Citation searching is a good approach when the user wants to know how many articles are citing articles of a certain author (i.e., Albert Einstein or Geraldine DeSanctis). Citation can be searched by using the Web of Science/web of knowledge or dialog classic. The Web version of SCI appeared in 1997 is the Web of Science®. The Web of Science provides access to multidisciplinary citation index information from approximately 8,700 high impact research journals in the world. Users can navigate to electronic full-text journal articles, with complete bibliographic data, cited reference data and navigation, and direct links to the full text (anonymous, 2007). The following are the features and benefits of the Web of Science® product information retrieved on June 17, 2007 from http://scientific.thomson.com/products/wos/.

Features

- Access to the *Science Citation Index®* (1900-present), *Social Sciences Citation Index®* (1956-present), *Arts & Humanities Citation Index®* (1975-present), Index Chemicus® (1993-present), and *Current Chemical Reactions®* (1986-present), plus archives 1840 - 1985 from INPI
- Navigate backward in time using cited references to uncover the research that influenced an author's work
- Navigate forward in time using Times Cited to discover the impact a paper or other published item has had on current research
- Link to the full text of primary literature
- Export records directly to leading biblographic management programs: *End-Note®, Reference Manager® and ProCite®*

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