

LOCATING FULL TEXT ARTICLES WITH CURRENT AWARENESS SERVICE: A CASE STUDY¹

By

Ms. K. T. Anuradha*
Ms. Suvarsha Walters**

ABSTRACT

Journals are an important source of information to a research community. But the problems associated with information explosion and escalating cost of journals have made it difficult to effectively access the information contained in journals, even for a narrow subject area. Application of information technology, like availability of on-line journals and e-mail based table of contents services, has eased the problem to some extent. One such service is the Electronic Table of Contents (ETOC) service provided by National Centre for Science Information (NCSI) to the research community at the Indian Institute of Science (IISc). This service is based on the Current Contents obtained from Institute of Scientific Information (ISI). This work aims to add value to the ETOC service by including information about the availability or non-availability of a journal in the JRD Tata Memorial Library in the institute in the ETOC service.

* Technical Officer, NCSI, IISc, Bangalore E-mail: kta@ncsi.iisc.ernet.in

** Project Assistant, NCSI, IISc, Bangalore E-mail: suvarsha@ncsi.iisc.ernet.in

0. Introduction

Information is the life-blood of research work. Research today depends on retrospective as well as current information. An important source of current information is journals or periodicals. A researcher has to keep himself updated by regularly scanning journals related to his/her area of work. However, increasing volume, specialization and interdisciplinary nature of research work have led to the problem of information explosion, seepage and scattering. Added to this is the escalating cost of journal publications.

These problems have been posing major challenge to information professionals for quite some time. Indexing and abstracting periodicals, both in print form and CD-ROM databases have tried to overcome this problem to some extent. They act as useful tools for identification of information. Rapid developments in information and communications technologies and the reduced costs of hardware, make possible new and better means of providing access to information, by affording just in time information rather than just in case information.

Publishers of journals are shifting to electronic and on-line publishing to reduce time lag. They also provide services like E-mail based Table of Contents services like Link Alert from Springer Verlag and Contents Direct from Elsevier, where by they push the Table of Contents of journals to the desktop of researchers. This helps the researchers to locate articles that might be of interest to them.

But with a great number of journals being published, it is still difficult to identify articles of relevance. To overcome this problem electronic versions of secondary services like Current Contents from ISI and Uncover Reveal have come up. They are similar to indexing and abstracting periodicals. They provide the Electronic Table of Contents of major publications, especially journals (often along with the abstracts) according to the requirements of the users.

But once the user has identified articles of interest, locating the full text is still a problem. The journal may be within the reach of the researcher, but he may not be aware of it. This information, of the availability or non-availability of a journal of interest to a researcher in the local library will greatly assist in the location of the full text of articles.

This work aims to tackle this problem within the limits of the IISc campus. This is done with the aid of Electronic Table of Contents (ETOC) Service provided by NCSI to researchers of IISc and the journal collection in the JRD Tata Memorial Library located on the campus.

1. National Center for Science Information

National Centre for Science Information (NCSI), Indian Institute of Science (IISc), established in 1983, is a premier information centre providing computer-based information services to the research and academic community in Science and Technology all over the country. It provides different types of information services using bibliographic databases and other resources. One such is the 'Electronic Table of Contents' or ETOC service.

1.1 Current Contents (CC)

Institute of Scientific Information (ISI), Philadelphia, USA publishes Current Contents (CC), a current awareness database that provides information in the fields of science, social science, technology, and arts and humanities. Published weekly in seven editions, it covers the contents from the world's scholarly journals. CC displays the tables of contents from more than 7,400 journals and 2,000 books, and conference proceedings, and provides complete bibliographic data for every item covered.

NCSI subscribes for Current Contents in four subject categories: Agriculture; Biology & Environmental Science; Engineering, Computing & Technology; Life Sciences and Physical, Chemical & Earth Sciences.

1.2 Journal Citation Reports (JCR)

ISI also publishes the JCR, which provides a systematic and objective means of determining the relative importance of journals within their subject categories. Five primary data fields with sort and filter options are provided in the JCR database: Total Cites (number of times the journal has been cited in a year), Impact Factor (frequency with which the average article in a journal has been cited in a particular year), Immediacy Index (how quickly the average article in a specific journal is cited), Articles (number of articles published in the year), Cited Half-life (reflects the ongoing use of a journal).

2. Electronic Table of Contents (ETOC)

ETOC is a service provided by NCSI for the IISc community, using the latest CC issues, which are downloaded via the Internet using FTP. It delivers every week, by e-mail, content pages along with abstracts of up to ten journals identified by the user in advance.

The ETOC users can enroll for the service thorough the Web by selecting 10 journals of choice. The enrollment form is received through e-mail and a copy is sent to the user for confirmation. A profile is created for the user by assigning a profile number. The enrollment form indicates the availability of the journals in IISc library and also the Impact Factor of the Journal obtained from the JCR database. The records from CC issues are downloaded using 'CCWin', a programme supplied by ISI. This downloaded file is transferred to a Linux machine and processed using C Programmes, which have been developed in-house. Since there are about 210 users, a batch processing of the profiles is done by creating inverted files for the journals. Then they are compared with the profiles of the users and the output is obtained. The output is mailed to the users. The users can modify their profiles at the same website.

2.1 Need for the project

Once the ETOC users obtain the table of contents and/or abstracts they will need the full text article. To understand how a user gets a full text paper and many other factors, a questionnaire was sent to the ETOC Users in December 1999. The questionnaire was sent to 110 users and about 30 of them responded. One of the questions was: "How do you obtain the full text of the document?" The analysis of the response to this question revealed that -

- ✍ Most of the users go to the IISc library for the full text.
- ✍ Some users also go for On-line Journals when available.
- ✍ Other options were : Other libraries, contacting authors /friends abroad and requesting reprints.

Since most users went to the JRD library for the full text articles of their interest, it would be convenient if information about the availability of a journal in the Library could be obtained through the ETOC service.

2.2 Aim and Purpose of the Project

To compare journal collection of Current Contents with IISc Library collection to serve the following purpose:

- ✍ To aid users in selection of journals for the ETOC service.
- ✍ To help them to locate the full text of an article of their interest.
- ✍ To build a collection development tool for Journals using Impact factor.

2.3 Methodology

Three Journal lists are used for this purpose:

- ✍ Journal Collection of IISc Library (provided by Library) (J-IISc)
- ✍ Journals covered by Current Contents - (from ISI) (J-CC)
- ✍ Journals covered by Journal Citation Report (from ISI) (J-JCR)

2.4 Summary of the Methodology

The records in the two lists are brought to a standardized form. They are compared to make a list of Journal titles that are common to both J-CC and the J-IISc. Impact factor for this set of journals is obtained from J-JCR. This list is used to make HTML files for the ETOC Service Web site so as to indicate whether the Titles covered by the ETOC service is available in the IISc Library. The same list is also used to modify the profiles of the users. The programmes that process the ETOC downloaded issues are also modified to reflect the availability or non-availability of the journals titles in the J-IISc.

A record in IISc Collection list:

23. ACTA ASTRONAUTICA
NETH
ISSN : 0094-5765
Subsc Prd. : Jan - Dec, 2000

A record in Current Contents list:

13. ACTA ASTRONAUTICA
Bimonthly
ISSN: 0094-5765
PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LF
LANE, KIDLINGTON, OXFORD, ENGLAND, OX5 1GB

Step I: To standardize the two files by extracting the ISSN and Title.

A standardized record in J-IISc:

0094-5765ACTA ASTRONAUTICA

- Problems:**
- (i) Many records did not have ISSN
(Number of journals with ISSN: 1221; Without ISSN: 334)
 - (ii) There is no standard format for abbreviations.

A standardized record in J-CC:

0094-5765ACTA ASTRONAUTICA

- Problems:** Since there were some records common in the four subject categories, there were duplicate records in J-CC

Step 2: To compare the standardized lists

(i) The two lists (having ISSN) were compared to find the journals in JIISc which were covered in J-CC.

0094-5765ACTA ASTRONAUTICA

(ii) The lists (with only TITLE) were also compared to find out the common titles. Those which did not match were put into another file and the comparison was done manually.

WATER SCIENCE & TECHNOLOGY

Now for these titles ISSN was extracted from J-CC:

0273-1223WATER SCIENCE AND TECHNOLOGY

The two lists were then merged to produce the final list of journals common to both J-IISc and CC.

This list was compared with J-JCR to obtain the Impact Factor for the journals.

Step 3: To utilize this file for ETOC service

(i) To create HTML files which indicate to the ETOC user at the time of subscription, if a particular journal covered by the service is subscribed by the IISc Library.

(ii) To modify the profile file and the programs which process the files used in the service so that availability of a journal in the Library is also indicated in the mail when the actual ETOC service is provided

3. Conclusion

Journals Collection of IISc library : 1555

Journals covered by CC : 4076

Journals in IISc library and covered by CC : 952

Journals in IISc library not covered by CC : 603

Of the 1555 journals in IISc Library, about 61 percent are covered in Current Contents.

About 23 percent of 4076 journals covered in the Current Contents Collection are available in the IISc Library.

The function of information intermediaries like NCSI is to act as catalysts and hasten the process of transfer of information from the producer to the consumer. The aim of the work was to bring the users of information a minute step closer to the source.

While selecting journal for the ETOC service, the users can now know about the availability of the journals in their Library and their Impact Factor. They may then proceed to choose Journals titles so as to supplement or compliment the collection in the Library, according to their requirements. This value addition helps them to take better decisions, and thus have better facilities for the identification of relevant information.

Once the users have identified articles of their interests through the ETOC service, they have to look out for the full-text. The information of availability of journal titles is also present in the E-mails received by the users along with the Table of Contents or abstracts. This helps, to an extent, to conserve the time and effort of the users while locating the full text.

With many publishers of scientific journals going for on-line publication, quite a number of journals are available on the Internet, either free of cost or through subscription. In future information of on-line availability of journals and the URL's also can be included in the ETOC weekly issues.

4. References

K. T. Anuradha, Current Awareness Service on the Intranet: A Case Study with ETOC (Electronic Table of Content); Annual Seminar on Electronic Sources of Information, 1st to 3rd March, 2000, ISI; DRTC, Bangalore, p. DC

Mariyappagauder S. and Jayashree S., Network Information Sources and Services: E-mail and Web based System for SDI, CALIBER-2000: Information Services in a Networked Environment in India, Information and Library Network Center, Ahemadabad, p 1.93-1.98.

NCSI's Homepage - <http://www.ncsi.iisc.ernet.in>

ISI's Website - <http://www.isinet.com/isi/products/citation/jcr/>

Oualline Steve, Practical C Programming, 3rd ed., O'Reilly, Cambridge, 1997.

Gottfried Byron S., Programming with C, Tata McGraw-Hill Publishing Company Ltd, New Delhi, 1991.

Appendix A : Sample ETOC Profile

```
ET0188
Nisha Mathew
IPC
nisha@ipc.iisc.ernet.in
N-ANGEWANDTE CHEMIE-INTERNATIONAL EDITION
N-JOURNAL OF ORGANOMETALLIC CHEMISTRY
Y-JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
Y-JOURNAL OF THE CHEMICAL SOCIETY-DALTON TRANSACTIONS
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Appendix B : Sample ETOC Output

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*****
ETOC no: ET0188      Name: Nisha Mathew      Dept: IPC
*****
Access late Total issues of Current Contents at
http://144. Total 50/ncsi/database/curcontents/ccweb.html
4076
List of Journals Subscribed Availability
in IISc
*****
ANGEWANDTE CHEMIE-INTERNATIONAL EDITION N
JOURNAL OF ORGANOMETALLIC CHEMISTRY N
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY Y
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Journal(s) covered in this issue

JOURNAL OF ORGANOMETALLIC CHEMISTRY---2000, Vol 607, Iss 1-2

2. JOURNAL OF THE AMERICAN CHEMICAL SOCIETY---2000, Vol 122, Iss 36

Journal of Organometallic Chemistry --- 2000, Vol 607, Iss 1-2

Journal of Organometallic Chemistry 2000, Vol 607, Iss 1-2
: 1/29

TI:Special volume: Dedicated to Professor Martin Bennett on the occasion of his 65th birthday and his retirement - Foreword

PG:1-2

AU:Wenger D

AD: Oro LA, Univ Zaragoza, CSIC, Inst Ciencia Mat Aragon, Dept Quim Inorgan, E-50009 Zaragoza, SPAIN

AB:Reaction of the dimers [{(eta(5)-C5Me5)MCl}(2)(mu-Cl)(2)] (M = Rh, Ir) or. . .