

## **EAHIL Workshop**

Implementation of quality systems and certification of biomedical libraries  
Palermo, June 23-25, 2005

# **E-journals vs databases? An evaluation study on users' behaviour in a research library**

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In the last decade remote access to electronic information resources has deeply affected the library use, modifying the patrons' behaviour in information retrieval. This study provides an evaluation analysis on the use of the electronic resources available on the web site of the Library of the Istituto Superiore di Sanità (ISS):

- a selected list of OVID bibliographic and full-text databases focused on specific subject areas
- electronic journals available through the CASPUR (Consorzio interuniversitario per le applicazioni di supercalcolo per università e ricerca) the consortium service *Emeroteca Virtuale*, which allows connection to a wide collection of journals published by several biomedical publishers.

The evaluation study is based on the 2001-2004 statistical usage data of the CASPUR service and OVID databases compared with the results of a survey, carried out by the ISS Library in 2004, about user's information-seeking behaviour and attitudes. The aim of this study was to assess if and how the e-journals have changed use patterns of other electronic information resources and to measure the impact of e-journals on the use of the ISS Library.

## **Electronic information resources**

The ISS Library allows access to the following bibliographic and full-text databases through the OVID platform:

- Drug Information full-text
- Embase
- Evidence Based Medicine reviews (full set)
- Food Science and Technology Abstracts (FSTA)
- YourJournals@Ovid (selected list of titles)
- Medline
- Medline In-Process
- NTIS.

It also subscribes to about 4400 electronic journals, about 3000 of which are from multiple publishers (American Chemical Society, Elsevier Science e Kluwer Academic Publisher) through CASPUR. These journals cover different subject areas with special attention to STM and social science fields. The CASPUR platform offers also features like article alert service and remote access.

The survey carried out in 2004 by the ISS Library reveals that bibliographic databases' usage has significantly decreased following the acquisition of online journals.

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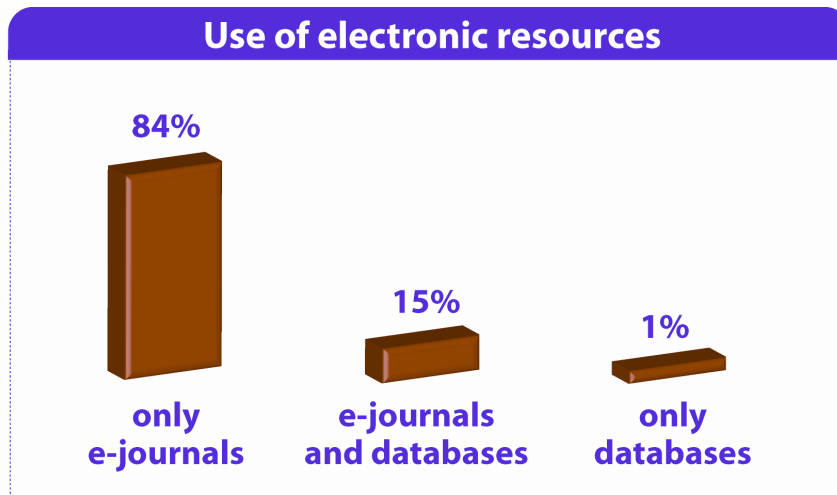


Figure 1 : Use of electronic resources

### Use of OVID databases

The overall use of OVID databases had declined in the period 2001-2003 while, since 2004, it has increased. The decrease could be due to the introduction of the CASPUR electronic journals library. Users in fact prefer to use the CASPUR platform, which provides full-text documents, instead of the traditional bibliographic databases. It means that the full search potentialities of CASPUR platform are used by ISS users, but it means also that the bibliographic databases are underutilized, even when databases focused on specific subject areas could guarantee a more effective information retrieval.

The reversal of the trend in 2004 may depends on two different factors:

- 1) the Library's new policy aimed at accessing an increasing number of OVID bibliographic and full-text databases, with some relevant e-journals.
- 2) the new advanced OVID search features such as:
  - Open Link (linking technology which brings the users directly from database citation to a full-text journal article);
  - Multifile search (selection and search on more than one database);
  - Deduping (removing of duplicates from the resulting search set).

These different aspects have been revealed successful, changing users behaviour towards a more aware use of OVID databases, even if researchers still prefer CASPUR platform.

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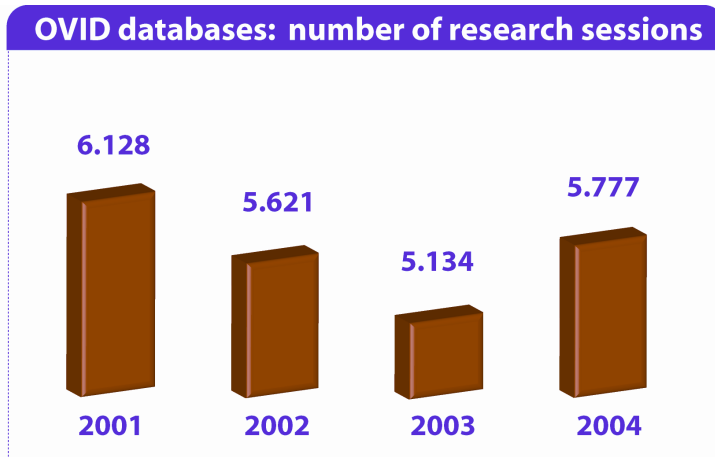


Figure 2 : OVID databases: number of research sessions

### Use of the CASPUR service

The steady increase of the CASPUR service is due to the availability of a wide collection of e-journals in STM and social science fields and their added value features. At the same time the usage of print journals has decreased significantly with the introduction of the online access, which affected also journals available only in print edition. Library statistics show that fewer users came to the library as more resources became available online and the users gained access from their desktop.

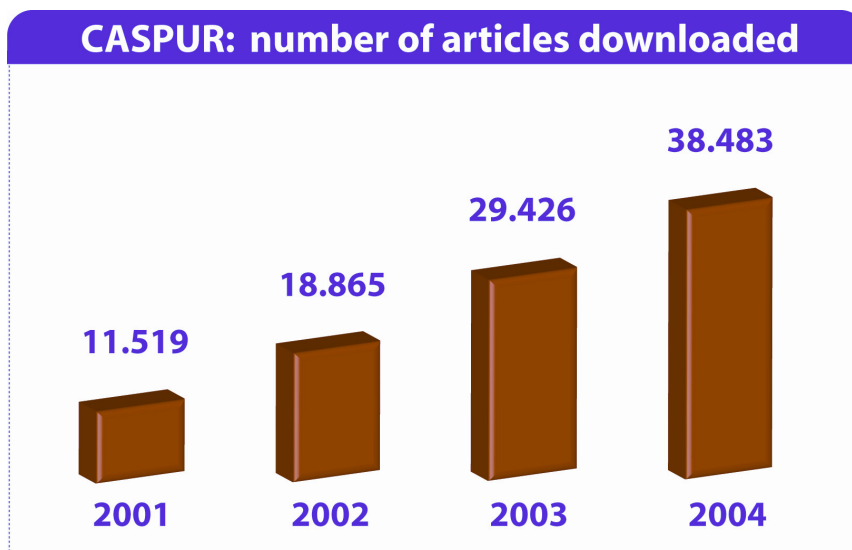


Figure 3: CASPUR: number of articles downloaded

### Search methods

Users seem to prefer the single citation and keyword approach in their searches whether they use OVID bibliographic databases or CASPUR electronic journals, even if more sophisticated tools such as thesauri are available in order to guarantee a more effective information retrieval. The basic search strategies adopted reveal that users tend to use only what is easily accessible on the Net. As a matter of fact users seem to adopt the same search strategies whether they use an Internet search engine (like Google) or an e-journals platform (like CASPUR) or a specific databases platform (like OVID).

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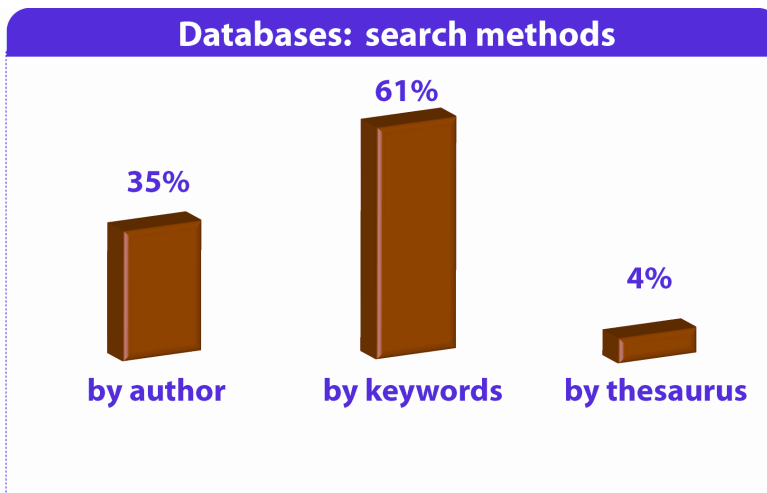


Figure 4 : Databases: search methods

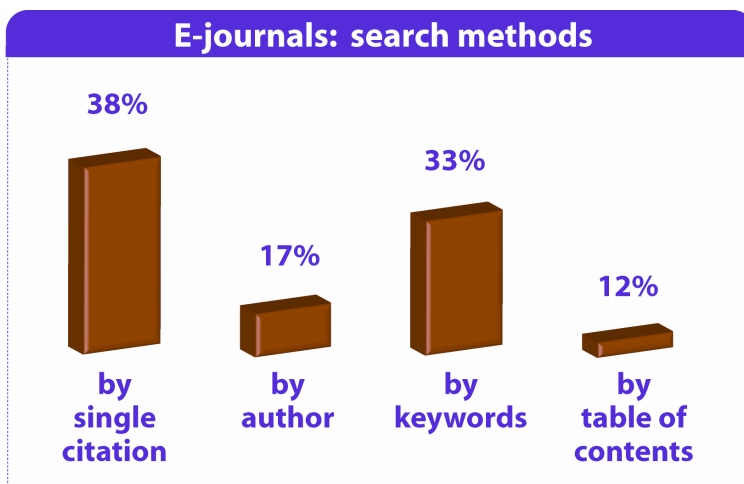


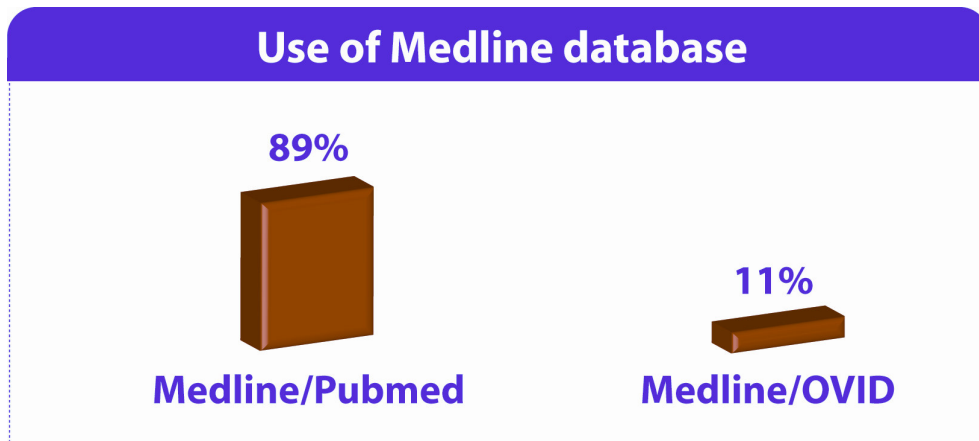
Figure 5 : E-journals: search methods

### Medline/Pubmed vs Medline/OVID

Users' behaviour analysis revealed that they prefer resources that guarantee full-text access such as CASPUR, instead of specific disciplinary bibliographic databases that guarantee more effective results with advanced search strategies. The survey has also shown that ISS users prefer Pubmed, the freely available interface to Medline by the National Center for Biotechnology Information (NCBI) located at the U.S. National Library of Medicine, instead of OVID Medline. Pubmed is popular probably because of its natural language search capabilities and its user friendly interface, while OVID Medline offers a more complex search interface. Patrons use Pubmed also because they prefer Internet resources that provide fast and easy access to information through simple interface (like Google). They in fact tend to adopt a relatively unsophisticated approach to searching.

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**Figure 6 : Use of the Medline database**

**Conclusions**

In this context disciplinary databases appear to be underutilized by users even if they have a great cost for the Library. As a consequence it is important to assess if more resources should be spent in user training in order to help them to use adequately these more sophisticated research tools.