

(1) **EDITORIAL: Guest Article**  
**BIOMEDICAL INFORMATICS**

**Sukhdev Singh**, Director,  
Bibliographic Informatics Division,  
National Informatics Centre,(Govt. of India)  
A-Block, CGO Complex, Lodhi Road, New Delhi - 110003 (India).

Extensive literature review is essential part of initiating any research work or writing a research article. It not only ensures that you are not “reinventing the wheel” but also provides groundwork for your research especially the justification as well as the methods and framework for your work. It gives credit to those who have drawn baselines in the subject domain on which your proposed research or work is seeking to make further contribution. To do literature review, you need to search for it in a systematic manner and ensure not to miss any study which may be directly relevant to your own work.

Gone are the days when researchers use to hunt for relevant literature in Libraries, going through heap of relevant journals and noting down relevant references on Cards. Indexing and Abstracting products are the default starting points for literature search these days. These products are available in form of bibliographic databases and are compiled carefully from selected good quality journals. Each citable item published in selected journals is transcribed into a Reference along with Standardized Keywords. These databases if searched in systematic manner ensure most of the worth and relevant references are retrieved.

PubMed, produced by world’s largest medical library i.e. US National Library of Medicine, is the most comprehensive international bibliographic database available online for free over Internet URL <http://www.ncbi.nlm.nih.gov/pubmed/> (or simply type <http://pubmed.gov>) . It comprises of more than 23 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites. MEDLINE is the primary component of PubMed that contains over 19 million references to journal articles. Bibliographic Records are indexed with NLM Medical Subject Headings (i.e. MeSH®).

To search PubMed, type a word or phrase into the query box. Multiple search terms can be combined with Boolean operators or connector words: “AND,” “OR,” or “NOT” using upper case letters. PubMed displays a list of Results in Summary format after clicking on the Search button. To retrieve more information about the citation(s), use the Display Settings menu to change the format, how the results are sorted and how many citations are displayed. Filters are available in the left navigation bar and may be used to limit searches.

## 1. IndMED and MedIND

### IndMED:

Researchers normally start with searching internal indexing services like PubMed. Although it is the best known tool for conducting literature survey for medical research, researchers often supplement their search results with similar regional and national databases. IndMED aims to supplement the literature surveys with Indian references. Moreover, it would be of immense use for researchers on diseases and medical problems more prevalent in India than in other developed countries.

IndMED started indexing journals from 1985 onwards. Journals are selected for indexing after a comprehensive review a selection committee from time to time. Selected journals are also reviewed periodically. Presently it indexes about 120 journals and has about 75 Thousand records.

Simple searching can be done straight way from <http://indmed.nic.in/> or from IndMED page <http://indmed.nic.in/indmed.html> by typing keywords combined by Boolean operators i.e AND / OR / NOT. IndMED also provides advance searching where the terms can be restricted to various part of the record say Title etc. Citations from a particular journal can be retrieved from a another separate interface providing a Drop-Down Menu of Journals indexed in IndMED.

### MedIND:

The purpose of MedIND is to provide access full text of Indian Medical Journals indexed in PubMed or IndMED. User get easy access to Full Text of Indian Medical Journals, which otherwise are not available through established book trade channels especially outside India. On the other hand, it provide online exposure to those indexed Indian medical journals willing to provide free full text access to there articles. It has been shown time and again that better online exposure leads to better appreciation and citations to articles. MedIND, available freely from URL <http://medind.nic.in>, hosts 65 Indian Medical Journals which can be browsed through Journal List. Full Text can be downloaded from Available Issues section of each Journal.

## 2. Internet: Biomedical Information Resources

Health is the most sought after top on Internet. However, in this talk we would be focusing on Internet Information Resources which might of use for Clinicians or Health Care Providers, Medical Researchers and Medical Librarians. Resources like PubMed Health, Advance Google, Cochrane, MDConsult, Medscape, Uptodate, RxList, CIMS etc would be useful for Health Care Professionals. For Medical Researchers, Bibliographical Resources like PubMed and IndMED would be useful. For medical Librarians various resources like Martindale's Health Science Guide would be useful. The talk would conclude on caution with resources available on Net and how their authenticity can be judged.

**3. Some issues in Scholarly Publishing: Peer-review, Impact Factor, Copyrights and Open Access.**

This would be more of an interactive talk touching some of the frequently asked issues in the domain of scholarly publishing. It would cover Peer-review and its role in research publication and quality control. What is Impact Factors, its utility and myths? What are authors' copyrights over their articles? What is concept of Open Access? How it is in favor of scholarly community? What are resources for Open Access Journals and Repositories.