THE ROLE OF THE ACADEMIC LIBRARIES FOI RESEARCH Part 1: Library services to researchers; Steps in online searching; **Electronic databases and Internet**

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- Background
- University of Johannesburg Library overview
- Library services to researchers
- Steps in Online searching 4
- **Electronic Databases for** research
- Internet resources
- **Open Access journals**



Academic libraries are widely seen as vital in the support of teaching, learning and research. Rapid changes in information technology inevitably change the role of the libraries as information intermediaries between the information resources and the researcher.

Moreover, it is almost universally accepted that the information revolution is having a profound impact on academic activities. As Academia itself has been changing, further fuelling the demand for specialised services provided by the libraries

ISSUES DESK Service is the edge that libraries presently have s, such as Google, Yahoo and Amazon. For example, students & researchers who have access to digital information only, have access to a very fragmented and incomplete portion of recorded human knowledge.

Libraries provide added value service to their clients by providing access to the right information.



Personally I think they went a step too far making the Library electronic



- The University of Johannesburg Library and Information Center (UJLIC) consist of five campus libraries at APK, APB, DFC, ESC, SWC and two faculty libraries (FADA & STH)
- (FADA & STH) All the libraries offer the full spectrum of information provision services (Circulation, Interlibrary Loans, General and Subject Information Services, User Guidance) to their campus communities. The UJLIC is a typical hybrid library and gives its clients access to both paper-based and electronic resources.
- and electronic resources. Integration into the research programmes ensures that researchers are supported in their need to keep abreast with new developments in their areas of interest and receive expert help with tracing difficult to find specialized information. Our vision is to become a globally acknowledged, African gateway to scholarly information; renowned for breaking knowledge boundaries.
- Library webpage (http://www.uj.ac.za/library) provide access to the Library Catalogue, Databases, E-Theses & Dissertations, useful links such as RefWorks & Reference Techniques, information about the library and its

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Library Specialised help

- Subject Librarians provide a specialised help and guidance in designing a literature search, locating sources of information and using electronic resources.
- Training sessions: Throughout the year the subject librarians provide a number of individual or group specialised training sessions tailored to meet the needs of researchers.
- Off-campus services: Through the Library webpage, researchers have remote access to the Library Catalogue, to the Databases (e-journals & e-books, e-encyclopedias, etc.), Interlibrary Loan services, Ask-A-Librarian services, enquiries about the library. A researcher can renew book loans and also have access to other University libraries.

Library Resources for researchers

- Electronic Resources
- Print Resources Reference techniques guides
- h methods: Guides to researching and writing a thesis or
- dissertation
- Managing references: Make use of EndNote, **RefWorks** or any other reference management software to organise your references results. Keeping up-to-date: new books, journals and databases alerting services, <u>Reeping up-to-date</u>: new blocks, journals and databases are init services, cited reference searching, conferences, news, web feeds, etc. <u>Open access repositories</u>. Open Access Initiative is the new paradigm in scholarly publishing. It aims to promote models that ensure free and unrestricted access to scholarly & research journals.

Document Delivery Interlibrary Loan Services (ILL): When doing research you will certainly come across references to items which are not held in the Library. These items can often be obtained for you via the Interlibrary Loans services

Using other Libraries

Letters of Introduction to other Libraries: Master's and Doctoral students can make use of other University Libraries

Special Collections and Archives

The Academic Libraries usually have Special Collections and archives

- Getting started: Collect your University card and introduce yourself to your subject librarian
- Making the most of library support: Information literacy training, online guides, etc.
- Keeping up-to-date with current research in your area by: Searching databases, attending conferences, alerts, bookmarking useful websites, participating in discussion lists
- Locating published information: Use your library print and electronic resources
- Requesting items from InterLibrary Loans or joining other
- Avoiding plagiarism: Keep detailed records of the resources that you use and make sure which are your thoughts and which are those of someone else. Understanding Intellectual Property and Copyright: Understand the implications that copyright and intellectual property issues have for your research.

- Step 1: Understand your information need
- Step 2: Formulate your search objectives
- Step 3: Select an appropriate source
- Step 4: Location and access of sources
- Step 5: Formulate search strategy for
- effective retrieval of information Step 6: Searching tools and techniques
- Step 7: Refinement of search strategies and
- alternative search strategies
- Step 8: Ongoing evaluation of the search results

- It is important to make a conscious effort to assess your information need before spending time searching information resources.
- What information do I need exactly? Consider this question from two perspectives: subject and format. (All information needs have these two components.)
- nt: The subject component reflects the topic of the need and is the component that is easiest for people to identify
- onent: The format component indicates the form the needed information will take, such as a research paper or iournal article.

What do you want to accomplish'

- Do you want to retrieve as much information as possible about your specific topic, or less, but highly specific information?
- Do you want the end result to be comprehensive bibliography (a reference to the documents), a single useful full-text record, which will provide the information to solve the information problem, or citations to a few documents? Measure the results in terms of recall and precision. Establish whether you prefer **High recall** (a comprehensive literature search) or **High precision** (a few, but highly relevant documents).
- To achieve HIGH RECALL use free-text words (natural languages) rather than index-terms (controlled vocabulary); Include as many synonyms as possible; Reduce the use of "AND" between the terms.
- For HIGH PRECISION use index terms (if thesaurus available) or use terms in the title field; Include as many terms (concepts) as possible to "AND" together.

Type of the information need

Suggested information resource

- For background information For articles: research or opinion For cutting adge research For Current or Completed Research information
- Use Library Catalogue to identify textbook and reference works; Use Online reference works

Search the electronic databases

Statistics, maps, images

Consider searching information resources that meet your subject needs

- As above
- Search Nexus databases for SA: Africa-Wide; Sabinet Online, Proquest, etc. databases
- Search Online statistical resources, Internet, etc

To locate information resources you need to access your Library website. For example the UJ Library provide access to information resources through

http://www.uj.ac.za/library

Click on Databases list to search the alphabetical list of various Bibliographic or Full-text databases available in the library or Click on UJ Library catalogue to search for available print books, reference works, periodicals and other library materials.

The library provides REMOTE access to most of the database. Type your "surname" and "student or staff number" for access.

- Defining the search topic and breaking it down into its component parts known as concepts (subject, topics) (clarifying the emphasis and limits). Once a search topic has been broken down, the keywords or subject terms need to be considered and their logical relationships with one another need to be indicated by making use of Boolean logic
- Determination of search terms (you need to identify as many search terms as possible to represent the search concept (subject, topic). The determination of search terms will be influenced by the choice between <u>natural languages</u> or controlled uppendixed. controlled vocabulary

* If used <u>controlled vocabulary</u> (to search for information in the descriptors field use <u>thesaurus</u>, to express the concepts accurately and precisely). * If <u>natural language</u> is used, you have to think of all the possible search terms yourself (use <u>dictionaries or encyclopedias</u> to identify as many suitable terms as possible). The computer will only search for information with regard to the terms that have been identified

Ensure that all likely relevant terms are included in the search strategy: * <u>Plural as well as singular form</u> (include both). Example: bird / birds; library / libraries

- Broader terms (if no information is retrieved by using specific terms, use broader terms). Example: The breeding of Persian cats Broader term: cats
- Broader term: cats Narower terms (if natural language used think of all possible narrower terms) Example: Problems of marketing of *deciduous fruit* in South Africa. Narower terms: peaches, plums, pears, apples <u>Abbreviations and Acronyms</u> (think of all possible abbreviations and acronyms) Example: SA South Africa, NRF / National Research Foundation <u>Spelling variations</u> (consider the differences between British and American spelling) Example: colour, cognisation / organization

- Ward order (words may be changed around and still has more or less the same meaning) Example: online searching / searching online 'Other related terms (synonyms and other related terms) Example: personal database/ personal information database;

Boolean operators: AND; OR; NOT

- Boolean logic refers to the logical relationship among search terms. It consists of three logical operators AND, OR, NOT, which joint the different concepts together. They are used when searching databases.
- Using "AND" logic NARROWS down a search. The system will retrieve records in which BOTH of the search terms are used. The more terms or concepts we combine in a search with AND logic, the fewer records we will retrieve.
- Using "OR" logic WIDENS a search. The system will retrieve records containing one term, the other, or both. The more terms or concepts we combine in a search with OR logic, the more records we will retrieve.
- "NOT" logic is used to exclude a particular concept. We retrieve only records in which ONLY ONE of the terms is present. ONLY ONE of the terms is present. The operators used more frequently are AND & OR and not so frequently NOT. They are used to combine search terms to broaden or narrow the results of a search. OR is more, AND is less.

Use of truncation (*)

Use of truncation (*) After identifying all the possible relevant search terms, decide whether you are going to use truncation to <u>extend</u> the search strategy. Truncation may be used to restrict the search to word stem (right truncation) Example: geograph* will retrieve information on geographer, geography, geographic, etc.

Use of Wildcard character (?) Wildcard can be helpful when you are unsure of the correct spelling of a word. A wildcard is the insertion of a question mark symbol in place of a letter that you do not know.

Banple: wom?n will search for both women and woman Use wildcard to retrieve words that are used differently in American and English Inonuanes

Example: organi?ation will find organiSation and organiZation

Use of parenthesis ()

The use of parenthesis () The use of parenthesis is very important in the grouping of search terms, not only for clarity on search terms representing the same concept, but also for instructing the computer in WHAT ORDER the search should be executed. (libraries OR archives) AND future

The word future will be combined with both terms before creating the final set

Phrase searching (" ") When using search terms containing more than one word in a specific order, by enclosing the words in quotation marks, the database finds only documents enclosing the words in quota containing the exact phrase.

Example: When searching for information on environmental management, using "environmental management" will eliminate those documents that contain the words environmental and management.

You need to be prepared for unexpected search results (too much or too little information retrieved) and thus to refine your search.

- If your search did not yield enough results, try searching a broader terms
- If your search yield too many results, use narrow terms.
- · Make sure you are using Boolean operators correctly
- Use alternative keywords (synonyms)
- Truncate search terms if needed.
- Try another databases
- · Ask for advice your subject librarian

- Evaluation determines how effectively and efficiently the information need was satisfied.
- The primary concern of evaluation are these questions:
 Was the information problem solved?
 - Was the information need met?
 - How relevant are my results?
- Does the product (databases, search engines, etc.) satisfy the requirements as originally defined?
- Can you write your assignments/ paper with the retrieved information?

- Difference between Bibliographic & Full-text databases
- Bibliographic databases & Research plan
- How to search the electronic databases for articles/references
- Information you need to know when searching Full-text databases
- Electronic Databases for research

What is the Difference Between:

A <u>bibliographic database</u> is an online database that lists sources of information and describes the information but that does not include the text of the information itself. It contains only references to various types of documents such as journal articles, books, conference papers and reports.

xt databases

A <u>full-text database</u> holds the complete text of original sources. The user can read the article, print, e-mail or download a copy. **NOTE:**

Full-text databases also provides access to abstracts only (Some journals have Publishers restrictions for displaying the full-text articles)

- A search of a bibliographic database is the first step in investigating a new research area or refining a research project.
- Surveying the previous research enables you to pinpoint topics for further research or replication of that research.
- You can also use a search to locate general articles and books on your topic to broaden your understanding of it and to learn about recent developments.
- After your research is complete, you can use a bibliographic search as an efficient way to find articles on your topic that were published since your initial search, in order to incorporate these recent findings into your report.
- Once references are retrieved from a Bibliographic database, you need to try and find the full-text articles.

- Go to: http://www.uj.ac.za/library
- Click on: Databases
- If you are off-campus your Surname & student number gives you access Click on: any Database listed that covers your subject area or the multidisciplinary/general databases (EbscoHost;)

- In the latabase opens up with a list of smaller Databases, please choose the ones you would like to search in and click on Search/Continue In the Search/Find box, type the keywords provided in your topic (For South African information, please add "South Africa" as a keyword) The results will be displayed. (If no results are available, check your spelling, change your keywords, use less keywords, add a keyword or use a synonym for the keyword) the keyword).
- Click on the Full Text, Text & Graphics or PDF links, when available If there is only an Abstract, the Full Text is not available Click on: Print, E-mail or Save when necessary

Most databases have similar features:

- Full-text databases also provides access to abstracts only (Some journals have Publishers restrictions for displaying the full-text articles);
- Each database have Basic and Advanced search screen
- You can combine your keywords with the Boolean operators (AND, OR, NOT) to narrow or broaden your search; NOTE: Each database can be searched with the help of THESAURES, TOPICS,
- Additional limitations are available, such as: <u>full-text articles only, years you want to</u> <u>search</u>, <u>type of documents you want to retrieve</u> (scholarly journals, magazines, books, dissertations, etc., which can narrow your search results.
- books, dissertations, etc., which can hardwoy you search results. Once the results list is displayed, you can re-group them by: the most relevant or the most recent once (different options in different databases) If the results are available full-text usually at least two version to open an article are available: Fart & Graphics or PDF format. Choose PDF if want to print. You can MARK all records you want to PRINT/SAVE/E-MAIL.

- Africa-Wide: Nipad. Multidisciplinary bibliographic information on everything published in and about Africa and South Africa. (Incl. SA Theses & Dissertation)
- SA E-Publications. Provide access to over 200 South African journals (full-text & bibliographic information)
- Sabinet Online (Forestry, Government Gazette, Provincial Gazette, SA Media, SA National Bibliography databases, etc.) Provide multidisciplinary access to variety of sources (full-text and bibliographic information).

The following electronic databases can be used by researchers to search for peer-revie journal articles and other materials:

- Applied science & technology includes bibliographical references and abstracts from journals to aspects of physical geography. A-toZ list provide access to the full-text electronic & print journals available in the library
- Biological and agricultural index includes bibliographical references and abstracts from journals to aspects of physical geography. CSA Natural Databases: Access to environmental and Geosciences information
- DIALOG. Multidisciplinary. Provide access to abstracts and full-text articles from ~ 600 datab
- EbscoHost databases provide full-text/references access to journals articles (Academic Search Premier; MasterFILE Premier; Environment Complete, etc.)
- EconLit databases provide international economic literature Engineering Village 2. Bibliographic information. Relevant information for Geosciences

- GeoBASE: Contains bibliographical references to journal articles, books, theses and reports on topics such as physical and human geography, geology, minerology, ecology, and development studies
- hical Abstracts (in two parts since 1986): Human Geography Physical Geography
- GeoBib. 1984+. A continuation of the print index Current Geographical Publications, this database indexes books, journal articles, government documents, and other publications dealing with geography.
- GeoRef covers the worlds literature on geology and geosciences
- GeoScienceWorld: Contains articles from 30 peer-reviewed journals published by six leading earth science societies, as well as by some other independent geoscience publishers, complete with full text archives back to 2000 (earlier for some journals).
- IEEE Xplore. Engineering full-text/ references. Relevant information for Geosciences
- InfoTrac: Academic OneFile. Full-text multidisciplinary database
- JSTOR. Full-text retrospective multidisciplinary database. Moving wall 2-5 years. Open 3 year access to all Africa countries.

- ISI Web of Science contains the Social Sciences Citation Index and Science Citation Index. They provide bibliographic information and abstracts from a wide range of key journals for all aspects of geography. ISI Current Contents Connect. Agriculture, Biology & Environmental Sciences.
- ISI Current Contents Connect: Physical Chemical & Earth Sciences. Bibliographic database
- Gatabase [SI Journal Citation Report (JCR): JCR will help you with quantifiable statistical data that provides a systematic, objective way to evaluate the world's leading journals and their Impact and Influence in the global research community. Online Geographical Bibliography: Search for books and articles from the holdings
- Online Geographical Bibliography: Search for books and articles from the holding of the American Geographical Society Library. PAIS: Public Affairs Information Service: Bibliographic index to journal articles, government documents, reports, books, year books on contemporary social, economic and political issues, social sciences, business, and public policy. Proquest (ABI/Inform, Academic Search Library, Education). Multidisciplinary full-text databases.

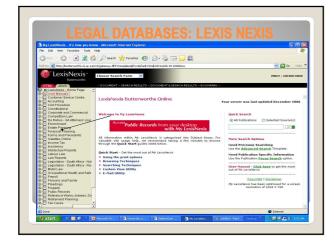
- ScienceDirect (Elsevier) is a database for scientific research in the life, physical, medical, technical, and social sciences available through the Internet. Full-text from 1996+
- from 1990+ SpringerLink (Springer & Kluwer) SpringerLink is a powerful central access point for researchers and scientists and currently offers over 1,250 fully peer-reviewed journals
- gical abstracts covers a broad range of subjects including aspects of social geography. Journal information with abstracts
- Resources Worldwide. Bibliographic database on water research
- These database are subset of all databases relevant to GeoSciences researchers, but most of them are available through the South African University Libraries. I think that they provide a good coverage for GeoSciences researchers.

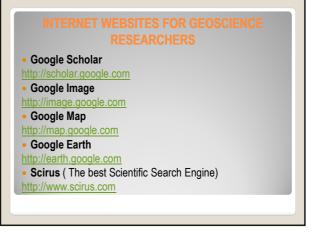




- Africa-Wide:Nipad. This multidisciplinary databases provide access to Nexus current & completed research.
- E-theses & dissertations (University of Johannesburg):
- E-theses & Dissertations (University of Pretoria);
- http://www.ais.up.ac.za/eres
- ISI Journal Citation Report (JCR): JCR will help you with quantifiable statistical data that provides a systematic, objective way to evaluate the world's leading journals and their Impact and Influence in the global research community.
- Nexus database: Current & Completed research in South Africa. Researchers can register for individual access.
- National Research Foundation (http://www.nrf.ac.za)
- SabinetOnline: Provide access to research information

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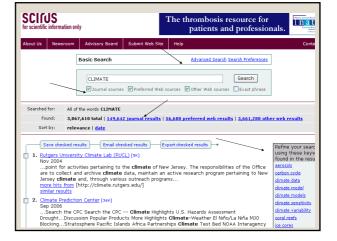




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- Earth Sciences Research Journal: ESRJ publishes your manuscripts after rigorous peer-review from local and international referees with expertise in the subject area of your work: http://www.geociencias.unal.edu.co/ESRJ_eng.htm

