**Data, Information and Knowledge**

Data is the plural of datum, although the singular form is rarely used. Depending on the context, data can be used in the plural or as a singular word meaning a set or collection of facts. It has not been processed for use. It is a series of disconnected facts and observations. Here “unprocessed” might be understood in a sense that no specific effort has been made to interpret or understand the data. They are the result of some observation or measurement process.

The verb ‘inform’ normally is used in the sense to communicate (i.e., to report, relate, or tell) and comes from the Latin verb informare, which meant to shape (form) an idea. Information is the end product of data processing. Knowledge is the end product of information processing. In much the same way as raw data are used as input, and processed in order to get information, the information itself is used as input for a process that results in knowledge

Knowledge is the general understanding and awareness garnered from accumulated information, tempered by experience, enabling new contexts to be envisaged. In other words, Knowledge is understood information. It is intangible compared to information or data as it is what an individual take from information and data, and what they incorporate into their beliefs, values, procedures, actions, etc. It is heavily internally oriented, understood completely only to the person possessing it. Knowledge is either explicit or tacit in nature. Explicit knowledge is the articulated knowledge, expressed and recorded as words, numbers, codes, mathematical and scientific formulae, and musical notations. Tacit knowledge on the other hand is the knowledge acquired through experience. It is not so easily expressed. It is highly personal, hard to formalize and difficult to communicate to others.

 In everyday discourse, the distinction between data and information, on the one hand, and between information and knowledge, on the other, remains typically vague. At any given moment, the terms data and information will be used interchangeably; whereas at another, information will be used interchangeably with knowledge.

**Sources of Information**

Information is processed data. Information can come from virtually anywhere — media, blogs, personal experiences, books, journal and magazine articles, expert opinions, encyclopedias, and web pages — and the type of information you need will change depending on the question you are trying to answer. An entity which provides you information is known as source of information. When searching for information on a topic, it is important to understand the natureand category of information sources.

The sources of information can be divided into:

1. Traditional Information Sources or Print based Information Sources
2. Electronic Information Sources based on the physical format.

The sources of information are also divided intoPrimary, Secondary and Tertiary sources of information based upon the nature of content. By understanding the unique characteristics and features of each, we will be able to identify them and maximize their potential use, and ultimately help to become more effective researchers and communicate the research work to others.However, many a times, it is difficult to distinguish between the three types of sources.  They even differ between subjects and disciplines, particularly between the sciences and humanities.

**Primary Sources of Information**

Primary sources are original materials on which other research studies are based. Primary sources report a discovery or share new information. They present first-hand accounts and information relevant to an event. They present information in its original form, not interpreted or condensed or evaluated by other writers. They are usually evidence or accounts of the events, practices, or conditions being researched and created by a person who directly experienced that event. Primary sources are the first formal appearance of results.

The types of information that can be considered a primary source may vary depending on the subject discipline, and how the material is being used. In the humanities and the arts, a primary document might be an original creative work. It might be a part of the historical record written about, or in proximity to, an event. In the sciences, it might be a publication of original research.

The major examplesfor primary information sources in scientific field are:

1. Journals
2. Conference papers/ proceedings
3. Theses/ Dissertations
4. Technical reports
5. Patents
6. **Journals**

A journal is a serial publication published at regular intervals under a common title and it contains a collection of articles usually written by scholars in an academic or professional field. **This is a** main type of publication in which scientific research is reported. Most journals are highly specialized, although some of the oldest journals such as *Nature* publish articles and scientific papers across a wide range of scientific fields.The journals are normally being published by learned societies/ professional association, individual scientific organizations and by commercial publishing companies. For e.g. *The American Journal of Speech-Language Pathology* is a scientific journal published by a professional association by name American Speech-Language-Hearing Association, *The Journal of All India Institute of Speech and Hearing* is published by a scientific organization by name All India Institute of Speech and Hearing and *International Journal of Audiology* is a journal published by a commercial publishing company by name Taylor and Francis.

The major components of a journal are:

1. Editorial article
2. Research articles
3. Letters to the Editor
4. Book Reviews

Depending on the frequency of publication, the journals are categozed into weekly, fortnightly, monthly, bi-monthly, quarterly, half yearly and yearly.

The major personnel involved in publishing a journal are:

1. Publisher: The person or the organization responsible for publishing a journal.
2. Authors: The professionals who contribute articles to the journal
3. Editors: The persons who are responsible for correcting, editing and managing a journal. The editors are known in various designations such as Chief Editor, Associate Editors, Assistant Editor etc. The group of editors working for a particular journal is known as Editorial Board headed by a Chief Editor.
4. Peer-reviewers: The subject experts who review the manuscriptssubmitted to a journal for publication.

**Journal workflow:**

1. The publication process starts with a researcher submitting a manuscript to a journal. Initially, the manuscript will be reviewed by the Chief Editor or an editorial board member assigned by himto check whether the subject matter of the manuscript matches with the scope of the journal.
2. In case the manuscript matches with the subject scope of the journal, it will be accepted and taken for further needful. Otherwise, the manuscript will be rejected and the same will be intimated to the author.
3. The initially accepted manuscript will be send for a process called peer reviewing in which the experts pertaining to the area of manuscript content will review the manuscript for the suitability of publication. The peer-reviewing are of the following three types:

### Single blind review: The names of the reviewers are hidden from the author. This is the traditional method of reviewing and is the most common type by far. The advantage of single blind review is that the reviewer anonymity allows for impartial decisions. i.e. the reviewers will not be influenced by the authors. The disadvanates include the concern of authors that reviewers in their field could delay publication, giving the reviewers a chance to publish first. Also, the reviewers may use their anonymity as justification for being unnecessarily critical or harsh when commenting on the authors’ work.

### Double blind review: Here both the reviewer and the author are anonymous. The author anonymity prevents any reviewer bias, for example based on an author's country of origin or previous controversial work. Articles written by prestigious or renowned authors are considered on the basis of the content of their papers, rather than their reputation. However, the reviewers can often identify the author through their writing style, subject matter or self-citation.

### Open review: Here, the reviewer and author are known to each other. Some believe this is the best way to prevent malicious comments, stop plagiarism, prevent reviewers from following their own agenda, and encourage open, honest reviewing. Others see open review as a less honest process, in which politeness or fear of retribution may cause a reviewer to withhold or tone down criticism.

1. **Theses/ Dissertations**

**Theses and dissertations are the primary sources in the form of reports of** research conducted for the awarding of higher academic degrees. In some contexts, the word " dissertation " is used for part of a bachelor's or master's course, while " thesis " is normally applied to a doctorate, while in others, the reverse is true. They must include the results of original and significant investigation, and must be the candidate’s own work. The research is assessed by external examiners before the degree is awarded.

**Conferences Papers/ Proceedings**

Usually, a scientific meeting, convention or conference covers a range of topics within a subject area. Other commonly used terms include symposia, colloquium, congress, discussion, institute, seminar, meeting, session, summer school or workshop. These events are an important avenue for reporting new research or developments in the form of discussion groups, lectures, presentations and/or poster sessions. The oral presentations at these meetings are called conference papers. The collective group of conference papers is called the conference proceedings. The papers presented may or may not be subject to editorial scrutiny. Conference papers can be: not published at all, published only in abstract form, published in advance of the conference as a preprint, published in book form, or as a special issue of a journal.

**Technical Reports**

: individual publications reporting research. They may report internal research within an organization, or research done by an individual or organization under contract to a client. They can be: freely available, available only to members of an organization, only available by purchase. Sometimes the information from the report will also be published in a journal article, but more often, the report is the only source of the information. Many governmental reports (full-text) are now being made available via the Internet.

Technical reports are scientific and technical information that usually originate from research sponsored by federal government agencies, but may also come from academic institutions, state or foreign governments, and private firms and organizations. They contain results of research carried out in government labs or on government contracts or, in the case of private companies, for in-house, proprietary use. They are often cited in engineering literature and occasionally indexed in databases; however, they often are difficult to verify and obtain as issuing or funding agencies may not make their reports publicly available. Technical reports can be particularly difficult to identify and locate as publication and dissemination of has never been centrally coordinated.

Characteristics of technical reports are that they:

* are written by and for experts within a given discipline
* contain the results of funded research
* address the needs of the sponsoring organizations
* can be difficult to locate and obtain

**Patents**

provides research information on new products or processes. Once published, patent information is freely available, but rarely republished in journal articles

Any **new and useful** process, machine, manufactured item, or composition of matter, or any new (“novel”) and useful improvement, subject to the conditions and requirements of the law.

**The “Useful” Requirement:**

The invention has a useful purpose

The invention will operate to perform that useful purpose—that is, it works.

**The “New,” or “Novelty” Requirement:**

The invention has not been disclosed (made public) before (in the United States, there is a one-year grace period following public disclosure)

The invention is not something that would be obvious to “a person having ordinary skill in the art”

For additional details, see [**Patent Requirements**](http://www.bitlaw.com/patent/requirements.html), at BitLaw.com

A **Patent** is an official document, issued by the U.S. Patent & Trademark Office (U.S.P.T.O.), granting property rights to the inventor or to the assignee (the latter is the owner of the patent).

An **Inventor** is alwaysa person—never a company or any other type of organization.

An **Assignee**—the owner or holder of a patent—can be a person, or a company, or an organization, or a country.

The term of a patent is generally 20 years from the date of application in the United States, providing that maintenance fees are paid

A patent granted by the U.S.P.T.O. is effective only in the United States, its territories, and possessions.

A patent grants the right to **exclude others** from making, using, offering for sale, selling, or importing the invention—a patent does not grant **“The”** right***to***engage in any of those activities.

The assignee—the patent owner—may license the patent to another party.

**Secondary sources**

Secondary sources analyses, evaluates, interprets, re-packages, summarizes or reorganizes information reported by researchers in the primary literature.They can be a good place to gather background information on a topic.These include textbooks, monographs, handbooks, reference books such as encyclopedias, abstracts, web sites, etc. that people write using the information from primary sources.

**Encyclopedias**

Encyclopedias are collections of short, factual entries often written by different contributors who are knowledgeable about the topic. There are two types of encyclopedias: general and subject. General encyclopedias provide concise overviews on a wide variety of topics. Subject encyclopedias contain in-depth entries focusing on one field of study.

Blackwell Companion to Phonology

Available online or as a five-volume print set, The Blackwell Companion to Phonology is a major reference work drawing together 124 new contributions from leading scholars in the field. Led by a renowned team of international scholars, the Companion represents a diverse range of approaches and methodologies to the key phenomena in phonological research. In contrast to other handbooks and reference works currently available for phonology, the Companion focuses on phenomena and case studies to highlight historical and ongoing debates in the field. The Companion will be a touchstone for future phonological theorists, giving an overview of all the data and insights which any good theory of phonology should be able to cover.

The online platform provides audio files and links to external web content, as well as interactive cross-referencing and powerful searching and browsing capabilities. Simultaneously offering broad coverage and a high level of detail, The Blackwell Companion to Phonology is a landmark work that will be indispensable to students and researchers in the field for years to come.

**Textbooks**

Most books are secondary sources, where authors reference primary source materials and add their own analysis.  "Lincoln at Gettysburg: the Words that Remade America" by Gary Wills is about Abraham Lincoln's Gettysburg Address. If you are researching Abraham Lincoln, this book would be a secondary source because Wills is offering his views about Lincoln and the Gettysburg Address.
Books can also function as primary sources. For example,Abraham Lincoln's letters, speeches, or autobiography would be primary sources. To locate primary sources in the library catalog, do a keyword search and include "sources" in your search. The search results for "Abraham Lincoln" and "Sources" would include include "The Civil War: the First Year Told By Those Who Lived It", a book that includes letters written by Abraham Lincoln.

**Dictionaries**

**Manuals/Handbooks/Guides**

These are synonymous terms used to refer a technical communication document intended to give assistance to people using a particular system. Theyare usually written by a technical writer.

**Manual/handbook** refers specifically to a reference document which provides detailed information about operation and maintenance of a product. Manufacturers will often provide an official manual for a product to provide assistance to its owners or users: cars, for example, usually come with an *owner's manual*, machinery with an *operator's manual*, and official documentation for Unix programs with *manual pages*.

User guides on the other hand are most commonly associated with electronic goods, computer hardware and software. Most of them contain both a written guide and the associated images. In the case of computer applications, it is usual to include screenshots of the human-machine interface(s), and hardware manuals often include clear, simplified diagrams. The language used is matched to the intended audience, with jargon kept to a minimum or explained thoroughly.

**Tertiary sources**

Tertiary sources contain information that has been compiled from primary and secondary sources. Tertiary sources are typically the last to be published in the information cycle. Tertiary sources provide overviews of topics by synthesizing information gathered from other resources. Tertiary resources often provide data in a convenient form or provide information with context by which to interpret it.Tertiary sources include almanacs, chronologies, directories andbibliographies .

**ELECTRONIC INFORMATION SOURCES**

Electronic publishing has become a major topic in the world literature in recent years, particularly because of the developments in information technologies. Electronic publications -- all those publications which are in electronic or digital media -- are usually known as electronic sources of information. In early 70s, most of the electronic sources were available on magnetic tapes and some were online. These were of course, mostly secondary sources (-- bibliographical databases). Since then many developments have taken place. Today, electronic sources are available on CD-ROMs or on the Net. In the present day context, sources which are available on the Net are often referred to as online sources. These sources consist of reference documents (-- dictionaries, encyclopedia, directories, handbook, atlas, etc), data, research publications, journals etc.

E-Resources are occupying a significant portion of the global literature. They refer to information sources in electronic form accessible via computer and communication technologies. According to AACR2, electronic information sources are the materials (data and/or program(s)) encoded for manipulation by a computerized device. They may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet).

The different types of e-resources are, E-books, E-journals, Databases, CDs/DVDs, E-conference proceedings, EReports, E-Maps, E-Pictures/Photographs, E-Manuscripts, E-Theses, E-Newspaper, Internet/Websites, Newsgroups, Subject Gateways etc.

1. CD-ROMs.
2. DVDs
3. Electronic Journals
4. Electronic Databases
5. Electronic Books
6. ETD’s (Electronic Theses and Dissertations)
7. Digital Libraries
8. Internet Resources
9. Electronic mail Data
10. OPAC
11. Institutional Repository System

**E-books**

**Notes**

The ability to create and then easily display archived notes is a big plus for eBooks. Instead of scribbling in small writing in the margins of a paper book, you can type a clear note in your eReader.

## Search

You can search for topics or keywords inside your eBook, or out on the Web. Similar to the word look-up feature, this is something that augments the reading experience.

**Electronic Journals**

Also known as online journals, virtual jurnals and e-journals, the electronic journals have emerged as the most prominent electronic information resource today. According to CONSER (The Cooperative ONlineSERials cataloging program) A remote access electronic serial is a continuing resource that is accessed “via computer networks”. It is issued in a succession of discrete parts usually bearing numbering, and has no predetermined conclusion. This is in contrast to direct access electronic resource which is issued on a physical carrier such as CD-ROM or floppy disks.

**Access Formats**

HTML and PDF most common

HTML Advantages • More options for linking, searching and supplementing the text • Loads quickly as file size is smaller then than PDF • Easy to index – HTML Disadvantages • More labor intensive to produce • Troublesome to print fragmented documents • Requires a separate production process form that of print journal • Display may change with different browsers.

PDF Advantages • Stable manageable and cost-effective for publishers • Familiar look for users • Easy conversion of legacy print – PDF Disadvantages • Requires additional plug-in i.e. Acrobat Reader • Large Files – can cause annoyance with slow bandwidth.

Multimedia objects, Data files and other Supplementary materials

Articles available much before available in print such as • Online fir st in case of Springer • Online Early in case o f Blackwell Synergy • Articles in Press in Case of ScienceDirect.

SEARCHEABILTY – Simple search – Advanced search – This Journal – All journals on the site – Journals in a subject cluster – Examples • ScienceDirect, SpringerLink.

Alerting service – ACS ASAPAlerts – Wiley’s MobileEdition – Highwire’seTOCs.

Independent of Space and Time – Constraints • Low bandwidth • Availability of proper hardware and software • Occasional breakdown of Internet • IP blocking by the Content Provider • Shifting URLs • Shifting contents • Embargoes • IP Issues

LONG TERM ACCESS: ARCHIVAL ISSUES – What happens if subscription is stopped – Change in hardware and software – Local hosting vsRemote hosting.

BENEFIT TO USERS – Independent of space and time – Interact with other electronic resources – Save user’s time (Ranganthan’s fourth Law) – Provides value addition such as searcheability, supplements, formats unavailable in print formats – Accelerated publication – Can be read by multiple users simultaneously – Can not be mutilated, stolen, lost vandalized etc etc.

BENEFIT TO LIBRARIES – Superior resource delivery – Improved service – Potentiality of accurate usage to help collection development decisions – Cost savings – Reduced shelving, binding, maintenance, claiming – Public relation opportunities – Provided and opportunity for concrete user education – Satisfied users – Simultaneous access

Drawbacks – Coverage may not be as complete as in print format – Authentication issues – Archival issues and long term preservation – Less control – Users technology does not always keep up with ejournal technology – Temporary unavailability due to technical reasons – Managing e-journals require much more skilled manpower.

Each academic discipline creates and uses primary and secondary sources differently; the definition of a primary source only makes sense in the context of a specific discipline or field of inquiry.
In the humanities and the arts, a primary document might be an original creative work.It might be a part of the historical record written about, or in proximity to, an event.In the sciences, it might be a publication of original research.

**A definition from Cornell:** Primary sources are the main text or work that you are discussing (e.g. a sonnet by William Shakespeare; an opera by Mozart);
actual data or research results (e.g. a scientific article presenting original findings; statistics);
or historical documents (e.g. letters, pamphlets, political tracts, manifestoes).
[["What is a Source?"](http://plagiarism.arts.cornell.edu/tutorial/logistics2.cfm) Recognizing and Avoiding Plagarism.Cornell University.College of Arts and Sciences.]

**A definition from Yale:** "A primary source is firsthand testimony or direct evidence concerning a topic under investigation. The nature and value of a source cannot be determined without reference to the topic and questions it is meant to answer. The same document, or other piece of evidence, may be a primary source in one investigation and secondary in another. The search for primary sources does not, therefore, automatically include or exclude any category of records or documents.

A primary source is a document or physical object which was written or created during the time under study. These sources were present during an experience or time period and offer an inside view of a particular event. They may also present original thinking, new discoveries or new information collected at the time of an event.

Primary sources are **first-hand, authoritative accounts** of an event, topic, or historical time period. They are typically produced at the time of the event by a person who experienced it, but can also be made later on in the form of personal memoirs or oral histories.

Anything that contains original information on a topic is considered a primary source. Usually, primary sources are the object discussed in your paper. For instance, if you are writing an analysis on Upton Sinclair’s *The Jungle*, the book would be a primary source. But, just because a source is old does not mean it is a primary source

Sources are considered primary, secondary, or tertiary depending on the originality of the information presented and their proximity or how close they are to the source of information

### TYPES OF SOURCES

Sources are considered primary, secondary, or tertiary depending on the **originality**of the information presented and their **proximity**or how close they are to the source of information. This distinction can differ between subjects and disciplines. In the sciences, research findings may be communicated informally between researchers through email, presented at conferences (primary source), and then, possibly, published as a journal article or technical report (primary source). Once published, the information may be commented on by other researchers (secondary sources), and/or professionally indexed in a database (secondary sources). Later the information may be summarized into an encyclopedic or reference book format (tertiary sources).

### Secondary Sources

Secondary sources analyses, evaluates, interprets, re-packages, summarizes or reorganizes information reported by researchers in the primary literature. These include:

* **Review Journals** : These generally start with Annual Review of …, Advances in …, Current Opinion in …
* **Article Reviews** : Articles that summarize the current literature on a specific topic.
* **Textbooks** : These can be either specialized to a narrow topic or a more boarder overview.
* **Data Compilations** :  Statistical databases (SEERS), Vital & Health Statistics, etc.
* **Article Indexes/Databases**: These can be abstracting or citation (e.g. Biological Abstracts/MEDLINE).

Electronic Encyclopedias

* [AccessScience](http://proxy.cc.uic.edu/login?url=http://www.accessscience.com)

AccessScience is the online edition of the McGraw-Hill Encyclopedia of Science & Technology. Limited to 8 simultaneous users.

more...

* [Encyclopaedia Britannica Online](http://proxy.cc.uic.edu/login?url=http://search.eb.com)

Includes growing set of research tools: Gateway to the Classics ; Quotable Quotes; Timelines and more. This resource was acquired with funds from the [the Library/IT Assessment](http://library.uic.edu/home/about-us/library-it-assessment).

more...

* [International Encyclopedia of the Social & Behavioral Sciences, 2nd edition](http://proxy.cc.uic.edu/login?url=http://www.sciencedirect.com/science/referenceworks/9780080970875)
	+ 

Comprehensive, scholarly background information on topics in the social and behavioral sciences with international scope

## Electronic Dictionaries and Thesauri

* [American Heritage® Dictionary of Idioms](http://proxy.cc.uic.edu/login?url=http://search.credoreference.com/content/title/hmidiom?tab=entries)

more...

* [American Heritage® Dictionary of the English Language](http://proxy.cc.uic.edu/login?url=http://search.credoreference.com/content/title/hmdictenglang?tab=entries)

more...

* [Merriam-Webster's Collegiate(R) Dictionary](http://proxy.cc.uic.edu/login?url=http://www.credoreference.com/book/mwcollegiate)
* [Oxford English Dictionary](http://proxy.cc.uic.edu/login?url=http://www.oed.com)

Definitive record of the meaning, history and evolution of English words over the last 1500 years.

more...

* [Roget's II The New Thesaurus](http://search.credoreference.com.proxy.cc.uic.edu/content/title/hmrogets?tab=overview)

more...

# Rehabilitation Reference Center

This evidence-based, point-of-care resource is for physical therapists, occupational therapists, speech therapists and rehabilitation professionals. With Rehabilitation Reference Center, therapists can access the most current information in their specialty so they can provide the best care to their patients. It is updated weekly with the most current information available about speech, physical and occupational therapy. Content is created using a strict evidence-based methodology and protocol focused on systematic identification, evaluation and consolidation of practice-changing information.

# Clinical Reviews: Summaries of common conditions including information on causes and risk factors, assessment and care plans, maintenance best practices and prevention.

# Patient Education: More than 1,500 patient education topics provide information to educate patients about their specific course of rehabilitation. Content is provided in both English and Spanish.

# Continuing Education Modules: Continuing education modules for physical therapists, occupational therapists and speech therapists

# Books: Access to the full text of renowned textbooks and manuals including Orthopedic and Athletic Injury Evaluation Handbook; Therapeutic Exercise: Foundations & Techniques; and Modalities for Therapeutic Intervention.

# Journals: Full text from top rehabilitation databses, such as Rehabilitation & Sports Medicine Source, can be included in Rehabilitation Reference Center search results (additional subscription is required)

# Exercise Images: Over 9,500 images with detailed explanations and demonstrations of thousands of exercises. Images are provided by Visual Health Images.

# Drug Information: Comprehensive drug information on more than 11,700 drugs including separate monographs for systemic, topical and EENT drug formulations. Drug information is provided by AHFS.

# Guidelines: Summaries of evidence-based clinical practice guidelines from the National Guideline Clearinghouse.

# Research Instruments: Descriptions of research instruments, clinical assessment tools, psychological tests, attitude measures and more.

# CINAHL Databases: A suite of databases on

# CINAHL Database

The Cumulative Index to Nursing and Allied Health Literature

Nurses, allied health professionals, researchers, nurse educators and students depend on theCINAHL Database to research their subject areas from this authoritative index of nursing and allied health journals.

### Easy Access to the Most Authoritative Nursing and Allied Health Literature Available

CINAHL Database provides indexing of the top nursing and allied health literature available including nursing journals and publications from the National League for Nursing and the American Nurses Association. Literature covers a wide range of topics including nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines.

In addition, CINAHL Database provides access to health care books, nursing dissertations, selected conference proceedings, standards of practice, audiovisuals and book chapters. It includes full-text journals, legal cases, clinical innovations, critical paths, research instruments and clinical trials.

### A Powerful Research Tool

An essential tool for nursing research, CINAHL Database provides an easy-to-use interface with basic and advanced search features and searchable cited references. CINAHL Subject Headings help users effectively search and retrieve information and follows the structure of the Medical Subject Headings (MeSH) used by the National Library of Medicine.

**CINAHL Complete**

The most comprehensive database of the CINAHL suite, CINAHL Complete is the world’s largest source of full text for nursing and allied health journals, and provides full text for more than 1,300 journals indexed in CINAHL. Full text is provided for many of the most-used journals in the CINAHL index, with no embargo. CINAHL Complete also provides indexing for more than 4,000 journals, and provides additional nursing and allied health research material including health care books, select conference proceedings, evidence-based care sheet and quick lesson disease overviews. This comprehensive file is an essential research database covering all areas of nursing and allied health literature.

# CINAHL Plus with Full Text

Full-Text Nursing and Allied Health Literature Plus Additional Resources

This comprehensive research database provides full text for nursing and allied health journals indexed in CINAHL Plus. Additional materials include full-text evidence-based care sheets, quick lessons and continuing education modules.

### Nursing and Allied Health Content from the Most Authoritative Sources

CINAHL Plus with Full Text includes publications from the National League for Nursing and the American Nurses Association. Many of the most popular full-text journals are available with no embargo. In addition, this resource offers access to health care books, nursing dissertations, selected conference proceedings, standards of practice, audiovisuals, book chapters and more.

CINAHL Plus with Full Text covers a wide range of topics including nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines.

### A Powerful Research Tool

CINAHL Plus with Full Textprovides an easy-to-use interface with basic and advanced search features and searchable cited references. CINAHL Subject Headings follow the structure of the Medical Subject Headings (MeSH) used by the National Library of Medicine.

# CINAHL with Full Text

Full Text for Top Nursing and Allied Health Literature

This valuable resource provides full text for nursing and allied health journals indexed in the CINAHL Database, many of which with no embargo. Nurses, allied health professionals, researchers, nurse educators and students consider this database an essential full-text research tool.

### Full-Text Coverage for a Wide Range of Nursing and Allied Health Subject Areas

CINAHL with Full Textprovides full text for the top nursing and allied health literature available and covers a wide range of topics including nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines.

This full-text resource features publications from the National League for Nursing and the American Nurses Association. In addition, it provides access to health care books, nursing dissertations, selected conference proceedings, standards of practice, audiovisuals, book chapters and more.

CINAHL with Full Text provides an easy-to-use interface with basic and advanced search features and searchable cited references. CINAHL Subject Headings help users effectively search and retrieve information and follow the structure of the Medical Subject Headings (MeSH) used by the National Library of Medicine.

# CINAHL Plus

The CINAHL Index Plus Additional Nursing and Allied Health Literature and Resources

The expanded version of the CINAHL index, CINAHL Plus provides an even wider scope of nursing and allied health journals as well as a higher number of records, full-text and cited references. In addition, it provides full-text evidence-based care sheets, quick lessons and continuing education modules.

### Comprehensive Journal Index and Additional Resources for Nursing and Allied Health Professionals

CINAHL Plus provides nurses, allied health professionals, researchers, nurse educators and students with an expanded version of CINAHL Database, the cumulative index to nursing and allied health literature. Including access to additional journals and increased content dating back to 1937, it covers a wide range of topics including nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines.

CINAHL Plus also contains nursing journals and publications from the National League for Nursing and the American Nurses Association as well as access to health care books, nursing dissertations, selected conference proceedings, standards of practice, audiovisuals, book chapters and more.

### A Powerful Research Tool

An essential tool for nursing research, CINAHL Plus provides an easy-to-use interface with basic and advanced search features and searchable cited references.CINAHL Subject Headings help users effectively search and retrieve information and follows the structure of the Medical Subject Headings (MeSH) used by the National Library of Medicine

# ****Open-i****

Open Access Biomedical Image Search Engine

# Open-i is a service of the National Library of Medicine enables search and retrieval of abstracts and images (including charts, graphs, clinical images, etc.) from the open source literature, and biomedical image collections. Searching may be done using text queries as well as query images. Open-i provides access to over 3.7 million images from about 1.2 million PubMed Central® articles; 7,470 chest x-rays with 3,955 radiology reports; 67,517 images from NLM History of Medicine collection; and 2,064 orthopedic illustrations.

# International Encyclopedia of Rehabilitation

The International Encyclopedia of Rehabilitation is a collaborative effort from the Center for International Rehabilitation Research Information and Exchange (CIRRIE), at the University at Buffalo, SUNY, and the Laboratoired'informatique et de terminologie de la réadaptation et de l'intégationsociale (LITRIS), from the Institut de réadaptation en déficience physique de Québec (IRDPQ).

On its completion, the encyclopedia will include four hundred articles on rehabilitation and disability topics identified through terms found in the CIRRIE and REHABDATA Thesauri, the World Health Organization's International Classification of Functioning, Disability and Health (ICF) and the International Index and Dictionary of Rehabilitation and Social Integration (IIDRIS).

Links among the encyclopedia, CIRRIE and REHABDATA databases, the dictionary and other databases will create an integrated information system and a comprehensive synthesis of the field of rehabilitation in a free, accessible, online, multilingual encyclopedia in English, French, and Spanish.

# Welcome to CIRRIE

The mission of the Center for International Rehabilitation Research Information and Exchange (CIRRIE) is to facilitate the sharing of information between rehabilitation researchers in the U.S. and those in other countries. CIRRIEmakes available to the disability community in the U.S. knowledge that has been found useful in other countries. It does this through a number of resources that are found on this website.

The [International Encyclopedia of Rehabilitation](http://cirrie.buffalo.edu/encyclopedia/) provides a synthesis of much of this research. The majority of the authors of the Encyclopedia articles are from outside the U.S. as are the reviewers, providing the Encyclopedia with an international scope.

CIRRIE supports international collaboration in rehabilitation research through its [program to support exchanges of researchers](http://cirrie.buffalo.edu/exchange/) between the U.S. and other countries.

CIRRIE also develops [educational resources related to culture and disability](http://cirrie.buffalo.edu/culture/) to strengthen the cultural competency of rehabilitation service providers who work with persons born outside the U.S., especially recent immigrants.

Additionally, CIRRIE compiles a [list of conferences, workshops and other events](http://cirrie.buffalo.edu/conferences/) that provide settings for the exchange of expertise internationally. In our current cycle we have conducted the [U.S. Launch and Symposium for the World Report on Disability](http://cirrie.buffalo.edu/conferences/2011/).

CIRRIE has been funded since 1999 through grants from the [the National Institute on Disability, Independent Living, and Rehabilitation Research](http://www.acl.gov/programs/NIDILRR/) of the U.S.Department of Health and Human Services.

# Evaluation

Anyone with a computer and the necessary rights to a Web server can post or alter data. This greatly increases accessibility and availability of information on a limitless range of topics, but it also means that anyone with such access can edit documents and disseminate false information, actions that cannot necessarily be detected by the user. There is no guarantee of the poster’s authority or of the authenticity of a document. Some assurance and security derives from a reputable site or designated domain (e.g., .gov or .edu), but even in such cases, the review process for documents posted is not always apparent or consistent. Unlike most printed resources (except vanity publications), many free online ones are not routinely reviewed, edited, or checked for accuracy prior to or after publication. Even fee-based e-resources may inaccurately report content information, from titles or dates included to currency.

# What Are Scientific Journals?

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## Q: What are scientific journals, and what kinds of articles do they publish?

A: Scientific journals represent the most vital means for disseminating research findings and are usually specialized for different academic disciplines or subdisciplines. Often, the research challenges common assumptions and/or the research data presented in the published scientific literature in order to gain a clearer understanding of the facts and findings. Depending upon the policies of a given journal, articles may include reports of original research, re-analyses of others’ research, reviews of the literature in a specific area, proposals of new but untested theories, or opinion pieces.

## Q: How is a manuscript evaluated for publication in a scientific journal?

A: A manuscript is first submitted to a journal by the author(s) for potential publication. Authors carefully select a journal based upon the content of their article and the intended audience. The editor determines whether the manuscript is within the editorial domain of the journal and appears to be an appropriate submission. On average, over 97% of submissions to journals published by the American Psychological Association, for example, are referred to outside experts for peer review of their merits.

## Q: What is peer review?

A: Peer review is a process whereby two or more experts in the relevant topic area evaluate manuscripts for potential publication at the request of the journal editor. Reviewers are carefully selected based on their scientific expertise, research area, and lack of bias toward the authors of a given manuscript. (Manuscripts are often circulated for peer review without their title pages to mask the identity of the authors and eliminate reviewer bias.) The reviewers, who usually remain anonymous, submit their written critiques to the journal editor, including attention to the strengths and weaknesses of the manuscript, together with editorial suggestions and recommendations. The editor reads the manuscript and the reviewers’ comments to make a determination as to whether the manuscript should be rejected, revised and resubmitted for further review, or accepted. Reviewers are not financially compensated for their work; they often spend between four and 12 hours (depending on the length and complexity of the manuscript) in completing a thoughtful, extensive editorial review, as one of their service contributions to the advancement of science. Journal editors may receive a small stipend.

## Q: Why are controversial articles published?

A: Scientific progress results from the free interchange of ideas, which other scientists then support or refute through their own research, analyses, and theories. Oftentimes, controversial views are intentionally published to stimulate further debate and move the field forward to a clearer understanding of the critical issues and relevant variables.

## Q: If an article’s methodology and/or conclusions turn out to be inaccurate, how is the scientific literature corrected?

A: Scientists subject published hypotheses to further scrutiny and publish their supportive or opposing conclusions. Commentaries are published about controversial findings, as well as empirical reports, that may contradict or support a hypothesis. In essence, science is a self-correcting, consensus-building enterprise, whereby any serious inaccuracies in an article are identified and the literature corrected through subsequent publications.

## Q: Do views expressed in journal articles reflect the position of the editor or association that published them?

A: No, articles published in scientific journals do not represent the positions of the association or publisher. Scientific journals typically include a disclaimer stipulating that opinions and statements contained in the journal are the personal views of the authors and do not constitute association policy or the views of the editor. Any exceptions are indicated in the article or in an editorial footnote. Furthermore, most scientific journal editors function as independent scholars, and they are neither employees nor official or legal representatives of the association or publisher.

## Q: What is the appropriate role of scientific journal articles in the development of public policy?

A: Public policy should be based on sound, peer-reviewed scientific research, whenever feasible. Such policy decisions are rightfully grounded in a large, respected body of research in a given area, not on a single study or opinion. The social policy implications of research may not be readily evident to some scientists and journal editors. If readers take issue with the social policy implications of a given article, they may submit written comments to the journal. Depending upon journal policy, such comments may be considered for publication after appropriate review.

Secondary Sources

Secondary sources describe, discuss, interpret, comment upon, analyze, evaluate, summarize, and process primary sources.  A secondary source is generally one or more steps removed from the event or time period and are written or produced after the fact with the benefit of hindsight.  Secondary sources often lack the freshness and immediacy of the original material.  On occasion, secondary sources will collect, organize, and repackage primary source information to increase usability and speed of delivery, such as an online encyclopedia

**Electronic Information Sources**

Electronic Thesis and Dissertation (ETD)

An electronic thesis or dissertation (ETD) is digital version of a dissertation that is available to the public via the Internet. Universities and colleges in the United States and abroad have been moving toward this type of publication for the past decade. Johns Hopkins is starting its own ETD program beginning in the fall semester of 2013.

* Easier on the student--no more printing hassles
* Wider dissemination--your dissertation will be freely available to the world soon after you graduate