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CONTENT

Chapter 1

Introduction

An information source is a source of information for somebody, i.e. anything that might inform a person about something or provide knowledge about it. Different types of questions require different sources of information. Information sources may be observations, people, speeches, documents, pictures, organizations, websites, etc. They may be primary sources, secondary sources, tertiary sources and so on.

Empiricism regards sense data as the ultimate information sources, while other epistemologies have different any thing or place from which something comes, arises, or is obtained; origin: Which foods are sources of calcium? 2. the beginning or place of origin of a stream or river. 3. a book, statement, person, etc., supplying 4. the person or business making interest or dividend payments. 5. a manufacturer or supplier views

In the other words any system producing information or containing information intended for transmission; in information science, the conventional designation for scholarly documents or publications, which serve not only as important sources but also as the means of transmission of information in space and time.

Information sources are distinguished by the form of representation: textual (books, journals, manuscripts), graphic (graphs, diagrams, plans, charts), and audiovisual (sound recordings, motion pictures, slides). Different information sources have arisen at various times, but they have all undergone significant evolution in the 20th century. The most important division of information sources was considered to be that into published and unpublished, since ideas and facts were acknowledged as introduced to scholarly use only after their publication, which implied wide dissemination and official registration of the corresponding documents. Information science has made a different division of information sources—into primary and secondary. Primary information sources chiefly contain new scholarly information or a new comprehension of known ideas and facts, such as books (excluding handbooks), periodicals and serials, special kinds of technical publications, scientific-technical reports, dissertations, and information charts. Secondary information sources contain for the most part information from primary documents or about them, such as reference literature, surveys, journals of abstracts, library catalogs, and bibliographical indexes and card catalogs.

Since the mid-1960's a system of depositing unpublished information sources has spread. It consists of manuscripts, articles, and books that are of interest to a small number of specialists; they are turned over, upon the decision of publishing and editing houses, for storage in information agencies. Information on these manuscripts is published in information publications, and copies of the manuscripts themselves are sent out upon the requests of specialists.

It has been established by analysis of interrelationships between scholarly publications that, of the enormous number of information sources accumulated by mankind, a small number of publications (about 10 percent of the total quantity), half of which are not more than five years old, are most often mentioned in later works and, consequently, are actually important for further scholarly investigations. These information sources constitute the core of truly valuable scholarly works.

Chapter 2

Information Sources: Primary, Secondary and Tertiary Sources

Primary sources are original materials. They are from the time period involved and have not been filtered through interpretation or evaluation. Primary sources are original materials on which other research is based. They are usually the first formal appearance of results in physical, print or electronic format. They present original thinking, report a discovery, or share new information.

Note: The definition of a primary source may vary depending upon the discipline or context.

Examples include:

•   Artifacts (e.g. coins, plant specimens, fossils, furniture, tools, clothing, all from the time under study);

•   Audio recordings (e.g. radio programs)

•   Diaries;

•   Internet communications on email, listservs;

•   Interviews (e.g., oral histories, telephone, e-mail);

•   Journal articles published in peer-reviewed publications;

•   Letters;

•   Newspaper articles written at the time;

•   Original Documents (i.e. birth certificate, will, marriage license, trial transcript);

•   Patents;

•   Photographs

•   Proceedings of Meetings, conferences and symposia;

•   Records of organizations, government agencies (e.g. annual report, treaty, constitution, government document);

•   Speeches;

•   Survey Research (e.g., market surveys, public opinion polls);

- Video recordings (e.g. television programs);

- Works of art, architecture, literature, and music (e.g., paintings, sculptures, musical scores, buildings, novels, poems).

- Web site.

For more information about identifying and analyzing primary sources, visit this guide.

Secondary sources

Secondary sources are less easily defined than primary sources. Generally, they are accounts written after the fact with the benefit of hindsight. They are interpretations and evaluations of primary sources. Secondary sources are not evidence, but rather commentary on and discussion of evidence. However, what some define as a secondary source, others define as a tertiary source. Context is everything.

Note: The definition of a secondary source may vary depending upon the discipline or context.

Examples include:

- Bibliographies (also considered tertiary);

- Biographical works;

- Commentaries, criticisms;

- Dictionaries, Encyclopedias (also considered tertiary);

- Histories;

- Journal articles (depending on the disciple can be primary);

- Magazine and newspaper articles (this distinction varies by discipline);

- Monographs, other than fiction and autobiography;

- Textbooks (also considered tertiary);

- Web site (also considered primary).

Tertiary sources

Tertiary sources consist of information which is a distillation and collection of primary and secondary sources.

- Almanacs;

- Bibliographies (also considered secondary);

- Chronologies;

- Dictionaries and Encyclopedias (also considered secondary);

- Directories;

- Fact books;

- Guidebooks;

- Indexes, abstracts, bibliographies used to locate primary and secondary sources;

- Manuals;

- Textbooks (also be secondary).

Comparison across the disciplines

Chapter 3

Data Organization

Stages:

1: Initiation

During the first stage, initiation, the information seeker recognizes the need for new information to complete an assignment. As they think more about the topic, they may discuss the topic with others and brainstorm the topic further. This stage of the information seeking process is filled with feelings of apprehension and uncertainty.

2: Selection

In the second stage, selection, the individual bocha begins to decide what topic will be investigated and how to proceed. Some information retrieval may occur at this point. The uncertainty associated with the first stage often fades with the selection of a topic, and is replaced with a sense of optimism.

3: Exploration

In the third stage, exploration, information on the topic is gathered and a new personal knowledge is created. Students endeavor to locate new information and situate it within their previous understanding of the topic. In this stage, feelings of anxiety may return if the information seeker finds inconsistent or incompatible information.

4: Formulation

During the fourth stage, formulation, the information seeker starts to evaluate the information that has been gathered. At this point, a focused perspective begins to form and there is not as much confusion and uncertainty as in earlier stages. Formulation is considered to be the most important stage of the process. The information seeker will here formulate a personalized construction of the topic from the general information gathered in the exploration phase.

5: Collection

During the fifth stage, collection, the information seeker knows what is needed to support the focus. Now presented with a clearly focused, personalized topic, the information seeker will experience greater interest, increased confidence, and more successful searching

6: Search closure

In the sixth and final stage, search closure, the individual has completed the information search. Now the information seeker will summarize and report on the information that was found

through the process. The information seeker will experience a sense of relief and, depending on the fruits of their search, either satisfaction or disappointment.

Chapter 4

Data Collection

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes. The data collection component of research is common to all fields of study including physical and social sciences, humanities, business, etc. While methods vary by discipline, the emphasis on ensuring accurate and honest collection remains the same.

Regardless of the field of study or preference for defining data (quantitative, qualitative), accurate data collection is essential to maintaining the integrity of research. Both the selection of appropriate data collection instruments (existing, modified, or newly developed) and clearly delineated instructions for their correct use reduce the likelihood of errors occurring.

A formal data collection process is necessary as it ensures that data gathered are both defined and accurate and that subsequent decisions based on arguments embodied in the findings are valid. The process provides both a baseline from which to measure and in certain cases a target on what to improve.

Consequences from improperly collected data include:

•   Inability to answer research questions accurately.

•   Inability to repeat and validate the study.

Distorted findings result in wasted resources and can mislead other researchers to pursue fruitless avenues of investigation. This compromises decisions for public policy, and causes harm to human participants and animal subjects.

While the degree of impact from faulty data collection may vary by discipline and the nature of investigation, there is the potential to cause disproportionate harm when these research results are used to support public policy recommendations.

Chapter 5

Data Hierarchy

Data Hierarchy refers to the systematic organization of data, often in a hierarchical form. Data organization involves fields, records, files and so on.

A data field holds a single fact or attribute of an entity. Consider a date field, e.g. "September 19, 2004". This can be treated as a single date field (e.g. birth date), or 3 fields, namely, month, day of month and year.

A record is a collection of related fields. An Employee record may contain a name field(s), address fields, birth date field and so on.

A file is a collection of related records. If there are 100 employees, then each employee would have a record (e.g. called Employee Personal Details record) and the collection of 100 such records would constitute a file (in this case, called Employee Personal Details file).

Files are integrated into a database. This is done using a Database Management System. If there are other facets of employee data that we wish to capture, then other files such as Employee Training History file and Employee Work History file could be created as well.

An illustration of the above description is shown in this diagram below.

Hierarchy	Example
Database	**Employee Database** Employee Details File Training Records File Salary File
File	**Employee Details File** | EMP_NAME	JOB TITLE	DATE EMPLOYED
---	---	---
Alice Carter	Lecturer	31 Mar 2002
Faridah bte Hassan	Sales Manager	9 Aug 2013
Jeffrey Tan	Lecturer	19 Sep 2004
Steve Willis	HR Manager	23 Dec 2005	
Record	**Employee Record** | EMP_NAME	JOB TITLE	DATE EMPLOYED
---	---	---
Jeffrey Tan	Lecturer	19 Sep 2004	
Field	**Employee Name Field** EMP_NAME Jeffrey Tan
Byte	01001010 (Letter J in ASCII)
Bit	0

Note: EMP = employee   Source: Jeffrey TL Tan Wikipedia original contributor for Data Hierarchy. 9 Aug 2013
Permission is given to freely use this diagram in its entirety & unedited.

Data Hierarchy Diagram – with Employee Database example

The following terms are for better clarity.

With reference to the example in the above diagram.

Data field label = Employee Name or EMP_NAME

Data field value = Jeffrey Tan

The above description is a view of data as understood by a user e.g. a person working in Human Resource Department.

The above structure can be seen in the hierarchical model, which is one way to organize data in a database.

In terms of data storage, data fields are made of bytes and these in turn are made up of bits.

Chapter 6

Research Report

A report or account is any informational work (usually of writing, speech, television, or film) made with the specific intention of relaying information or recounting certain events in a widely presentable form.

Written reports are documents which present focused, salient content to a specific audience. Reports are often used to display the result of an experiment, investigation, or inquiry. The audience may be public or private, an individual or the public in general. Reports are used in government, business, education, science, and other fields.

Reports use features such as graphics, images, voice, or specialized vocabulary in order to persuade that specific audience to undertake an action. One of the most common formats for presenting reports is IMRAD: Introduction, Methods, Results and Discussion. This structure is standard for the genre because it mirrors the traditional publication of scientific research and summons the ethos and credibility of that discipline. Reports are not required to follow this pattern, and may use alternative patterns like the problem-solution format.

Additional elements often used to persuade readers include: headings to indicate topics, to more complex formats including charts, tables, figures, pictures, tables of contents, abstracts, and nouns summaries, appendices, footnotes, hyperlinks, and references.

Some examples of reports are: scientific reports, recommendation reports, white papers, annual reports, auditor's reports, workplace reports, census reports, trip reports, progress reports, investigative reports, budget reports, policy reports, demographic reports, credit reports, appraisal reports, inspection reports, military reports, bound reports, etc.

Reports are very important in all their various forms along with the usual evidences like in a crimes scene people usually leave behind evidences. They fill a vast array of critical needs for many of society's important organizations. Police reports are extremely important to society for a number of reasons. They help to prosecute criminals while also helping the innocent become free. Reports are a very useful method for keeping track of important information. The information contained in reports can be used to make very important decisions that affect our lives daily.

Bibliography (from Greek βιβλιογραφία, bibliographia, literally "book writing"), as a discipline, is traditionally the academic study of books as physical, cultural objects; in this sense, it is also known as bibliology (from Greek -λογία, -logia). Carter and Barker (2010) describe bibliography

as a twofold scholarly discipline—the organized listing of books (enumerative bibliography) and the systematic, description of books as physical objects (descriptive bibliography).

Chapter 7

Branches of Bibliography

Carter and Barker (2010) describe bibliography as a twofold scholarly discipline—the organized listing of books (enumerative bibliography) and the systematic, description of books as physical objects (descriptive bibliography). These two distinct concepts and practices have separate rationales and serve differing purposes. Innovators and originators in the field include W. W. Greg, Fredson Bowers, Philip Gaskell, and G. Thomas Tanselle.

Bowers (1949) refers to enumerative bibliography as a procedure that identifies books in "specific collections or libraries," in a specific discipline, by an author, printer, or period of production (3). He refers to descriptive bibliography as the systematic description of a book as a material or physical artifact. Analytical bibliography, the cornerstone of descriptive bibliography, investigates the printing and all physical features of a book that yield evidence establishing a book's history and transmission (Feather 10). It is the preliminary phase of bibliographic description and provides the vocabulary, principles and techniques of analysis that descriptive bibliographers apply and on which they base their descriptive practice.

Descriptive bibliographers follow specific conventions and associated classification in their description. Titles and title pages are transcribed in a quasi-facsimile style and representation. Illustration, typeface, binding, paper, and all physical elements related to identifying a book follow formulaic conventions, as Bower's established in his foundational opus, The Principles of Bibliographic Description. The thought expressed in this book expands substantively on W. W. Greg's groundbreaking theory that argued for the adoption of formal bibliographic principles (Greg 29). Fundamentally, analytical bibliography is concerned with objective, physical analysis and history of a book while descriptive bibliography employs all data that analytical bibliography furnishes and then codifies it with a view to identifying the ideal copy or form of a book that most nearly represents the printer's initial conception and intention in printing.

In addition to viewing bibliographic study as being composed of four interdependent approaches: enumerative, descriptive, analytical, and textual, Bowers notes two further subcategories of research, namely historical bibliography and aesthetic bibliography. Both historical bibliography, which involves the investigation of printing practices, tools, and related documents, and aesthetic bibliography, which examines the art of designing type and books, are often employed by analytical bibliographers.

D. F. McKenzie extended previous notions of bibliography as set forth by W. W. Greg, Bowers, Gaskell and Tanselle. He describes the nature of bibliography as "the discipline that studies texts as recorded forms, and the processes of their transmission, including their production and reception" (1999 12). This concept broadens the scope of bibliography to include "non-book texts" and an accounting for their material form and structure, as well as textual variations,

technical and production processes that bring socio cultural context and effects into play. McKenzie's perspective contextualizes textual objects or artifacts with sociological and technical factors that have an effect on production, transmission and, ultimately, ideal copy (2002 14). Bibliography, generally, concerns the material conditions of books [as well as other texts] how they are designed, edited, printed, circulated, reprinted, collected.

Bibliographic works differ in the amount of detail depending on the purpose and can generally be divided into two categories: enumerative bibliography (also called compilative, reference or systematic), which results in an overview of publications in a particular category and analytical or critical bibliography, which studies the production of books. In earlier times, bibliography mostly focused on books. Now, both categories of bibliography cover works in other media including audio recordings, motion pictures and videos, graphic objects, databases, CD-ROMs and websites.

Enumerative bibliography

An enumerative bibliography is a systematic list of books and other works such as journal articles. Bibliographies range from "works cited" lists at the end of books and articles, to complete and independent publications. A notable example of a complete, independent publication is Gow's, A. E. Housman: A Sketch, Together with a List of His Classical Papers (1936). As separate works, they may be in bound volumes such as those shown on the right, or computerized bibliographic databases. A library catalog, while not referred to as a "bibliography," is bibliographic in nature. Bibliographical works are almost always considered to be tertiary sources.

Bibliographer workplace in Russia

Enumerative bibliographies are based on a unifying principle such as creator, subject, date, topic or other characteristic. An entry in an enumerative bibliography provides the core elements of a

text resource including a title, the creator(s), publication date and place of publication. Belanger (1977) distinguishes an enumerative bibliography from other bibliographic forms such as descriptive bibliography, analytical bibliography or textual bibliography in that its function is to record and list, rather than describe a source in detail or with any reference to the source's physical nature, materiality or textual transmission. The enumerative list may be comprehensive or selective. One noted example would be Tanselle's bibliography that exhaustively enumerates topics and sources related to all forms of bibliography. A more common and particular instance of an enumerative bibliography relates to specific sources used or considered in preparing a scholarly paper or academic term paper.

Citation styles vary. An entry for a book in a bibliography usually contains the following elements:

•   creator(s)

•   title

•   publisher and place of publication

•   date of publication

An entry for a journal or periodical article usually contains:

•   creator(s)

•   article title

•   journal title

•   volume

•   pages

•   date of publication

A bibliography may be arranged by author, topic, or some other scheme. Annotated bibliographies give descriptions about how each source is useful to an author in constructing a paper or argument. These descriptions, usually a few sentences long, provide a summary of the source and describe its relevance. Reference management software may be used to keep track of references and generate bibliographies as required.

Bibliographies differ from library catalogs by including only relevant items rather than all items present in a particular library. However, the catalogs of some national libraries effectively serve as national bibliographies, as the national libraries own almost all their countries' publications.

Descriptive bibliography

Fredson Bowers described and formulated a standardized practice of descriptive bibliography in his Principles of Bibliographical Description (1949). Scholars to this day treat Bowers' scholarly guide as authoritative. In this classic text, Bowers describes the basic function of bibliography as, "[providing] sufficient data so that a reader may identify the book described, understand the printing, and recognize the precise contents" (124).

Descriptive bibliographies as scholarly product

Descriptive bibliographies as a scholarly product usually include information on the following aspect of a given book as a material object:

•   Format and Collation/Pagination Statement – a conventional, symbolic formula that describes the book block in terms of sheets, folds, quires, signatures, and pages

According to Bowers (193), the format of a book is usually abbreviated in the collation formula:

Broadsheet: I° or b.s. or bs.

Folio: 2° or fol.

Quarto: 4° or 4to or Q° or Q

Octavo: 8° or 8vo

Duodecimo: 12° or 12mo

Sexto-decimo: 16° or 16mo

Tricesimo-secundo: 32° or 32mo

Sexagesimo-quarto: 64° or 64mo

The collation, which follows the format, is the statement of the order and size of the gatherings.

For example, a quarto that consists of the signed gatherings:

2 leaves signed A, 4 leaves signed B, 4 leaves signed C, and 2 leaves signed D

would be represented in the collation formula:

4°: A2B-C4D2

•   Binding – a description of the binding techniques (generally for books printed after 1800)

- Title Page Transcription – a transcription of the title page, including rule lines and ornaments

- Contents – a listing of the contents (by section) in the book

- Paper – a description of the physical properties of the paper, including production process, an account of chain-line measurements, and a description of watermarks (if present)

- Illustrations – a description of the illustrations found in the book, including printing process (e.g. woodblock, intaglio, etc.), measurements, and locations in the text

- Presswork – miscellaneous details gleaned from the text about its production

- Copies Examined – an enumeration of the copies examined, including those copies' location (i.e. belonging to which library or collector)

Analytical bibliography

This branch of the bibliographic discipline examines the material features of a textual artifact – such as type, ink, paper, imposition, format, impressions and states of a book – to essentially recreate the conditions of its production. Analytical bibliography often uses collateral evidence – such as general printing practices, trends in format, responses and non-responses to design, etc. – to scrutinize the historical conventions and influences underlying the physical appearance of a text. The bibliographer utilizes knowledge gained from the investigation of physical evidence in the form of a descriptive bibliography or textual bibliography. Descriptive bibliography is the close examination and cataloging of a text as a physical object, recording its size, format, binding, and so on, while textual bibliography (or textual criticism) identifies variations – and the aetiology of variations – in a text with a view to determining "the establishment of the most correct form of [a] text (Bowers 498[1]).

Etymology

The word bibliographia (βιβλιογραφία) was used by Greek writers in the first three centuries AD to mean the copying of books by hand. In the 12th century, the word started being used for "the intellectual activity of composing books". The 17th century then saw the emergence of the modern meaning, that of description of books. Currently, the field of bibliography has expanded to include studies that consider the book as a material object.

Non-book material

Systematic lists of media other than books can be referred to with terms formed analogously to bibliography:

• Discography – recorded music

• Filmography – films

• Webography (or webliography) – websites (the first use of the word "webliography" recorded in the Oxford English Dictionary dates from June 1995)

Arachniography is a term coined by NASA research historian Andrew J. Butrica, which means a reference list of URLs about a particular subject. It is equivalent to a bibliography in a book. The name derives from arachne in reference to a spider and its web.

Bibliography as a field of study

Bibliography is a specialized aspect of library science (or library and information science, LIS) and documentation science. The founder of documentation, Paul Otlet wrote about "the science of bibliography".However, there have recently been voices claiming that "the bibliographical paradigm" is obsolete, and it is not today common in LIS. A defense of the bibliographical paradigm was provided by Hjørland (2007). The quantitative study of bibliographies is known as bibliometrics, which is today an influential subfield in LIS.

Chapter 8

Reference

Reference is a relation between objects in which one object designates, or acts as a means by which to connect to or link to, another object. The first object in this relation is said to refer to the second object. The second object – the one to which the first object refers – is called the referent of the first object.

The term reference is used in many spheres of human knowledge, adopting shades of meaning particular to the contexts in which it is used.

References can take on many forms, including: a thought, a sensory perception that is audible (onomatopoeia), visual (text), olfactory, or tactile, emotional state, relationship with other,[1] spacetime coordinate, symbolic or alpha-numeric, a physical object or an energy projection; but, other concrete and abstract contexts exist as methods of defining references within the scope of the various fields that require an origin, point of departure, or an original form. This includes methods that intentionally hide the reference from some observers, as in cryptography.

The following sections give specific usages of reference in different subjects.

Rererence

The word reference is derived from Middle English referren, from Middle French référer, from Latin referre, "to carry back", formed from the prefix re- and ferre, "to bear". A large number of words derive from this root, including referee, referent, referendum, all retaining the basic meaning of the original Latin as "a point, place or source of origin" in terms of which something of comparable nature can be defined. A referee is the provider of this source of origin, and a referent is the possessor of the source of origin, whether it is knowledge, matter or energy.

Computer science

Main article: Reference (computer science)

In computer science, references are data types that refer to an object elsewhere in memory and are used to construct a wide variety of data structures, such as linked lists. Generally, a reference is a value that enables a program to directly access the particular data item. Most programming languages support some form of reference.

The C++ programming language has a specific type of reference also referred to as a "reference"; see reference (C++).

The notion of reference is also important in relational database theory; see referential integrity.

Bibliographies

Bibliographies are special reference works that are used to identify as many published works on a given subject as possible, and serve as compilations for other authors or researchers.

Library and information sciences

In a library, "reference" may refer to a dictionary, an encyclopedia or other reference work, that contains many brief articles that cover a broad scope of knowledge in one book, or a set of books. However, the word reference is also used to mean a book that cannot be taken from the room, or from the building. Many of the books in the reference department of a library are reference works, but some are books that are simply too large or valuable to loan out. Conversely, selected reference works may be shelved with other circulating books, and may be loaned out.

References to many types of printed matter may come in an electronic or machine-readable form. For books, there exists the ISBN and for journal articles, the Digital object identifier (DOI) is gaining relevance. Information on the Internet may be referred to by a Uniform Resource Identifier (URI).

Librarians also conduct reference interviews at the library reference desks, to help people find the information they seek. Help may also be available outside the library though virtual reference and digital reference services.

Encyclopedias & books of facts

Some published sources are produced as reference works that allow quick access to essential information about given subjects, sometimes compiled as topical collections, and sometimes as general collections of entries.

Psychology

In terms of mental processing, a self-reference is used in psychology to establish identification with a mental state during self-analysis. This seeks to allow the individual to develop own frames

of reference in a greater state of immediate awareness. However, it can also lead to circular reasoning, preventing evolution of thought.

Economics and business

Further information: Employment reference letter

In the labour market, potential employers often ask job applicants for references or recommendations, so that their suitability can be verified independently. The references can be a written letter, but are often just a contact telephone number. Employers can ask for professional references, which are from former employers, or for character references, which are from people of distinction such as doctors or teachers. The source of the reference must be well known to the applicant and able to vouch for their abilities during employment.

In business administration, terms of reference describe the purpose and structure of a project, committee, meeting, negotiation, or any similar collection of people who have agreed to work together to accomplish a shared goal. The terms of reference of a project are often referred to as the project charter.

In business marketing and public procurement and tenders references are often used within the field of engineering, consultancy, industry and construction contracts. References are used to examine a company's ability to deliver the required level of service. Very often bigger companies will have hundreds or even thousands of references and will often try to categorize and manage them with reference management software.

Education

In academics and scholarship, an author-title-date information in bibliographies and footnotes, specifying complete works of other people. Copying of material by another author without proper citation or without required permissions is plagiarism.

Keeping a diary allows an individual to use references for personal organization, whether or not anyone else understands the systems of reference used. However, scholars have studied methods of reference because of their key role in communication and co-operation between different people, and also because of misunderstandings that can arise. Modern academic study of reference has been developing since the 19th Century.

In scholarship, a reference may be a citation of a text that has been used in the creation of a piece of work such as an essay, report, or oration. Its primary purpose is to allow people who read such work to examine the author's sources, either for validity or to learn more about the subject. Such items are often listed at the end of an article or book in a section marked "Bibliography" or

"References". A bibliographical section often contains works not cited by the author, but used as background reading or listed as potentially useful to the reader. A reference section contains all of the works and only those works cited by the author(s) in the main text.

Law

In law, references are documents or people providing witness to character. This connotation is also used in employment.

In patent law, a reference is a document that can be used to show the state of knowledge at a given time and that therefore may make a claimed invention obvious or anticipated. Examples of references are patents of any country, magazine articles, Ph.D. theses that are indexed and thus accessible to those interested in finding information about the subject matter, and to some extent Internet material that is similarly accessible.

In Canadian law, a reference question is a procedure through which the government can submit legal questions to the Supreme Court of Canada and provincial governments to the provincial courts of appeal.

Semantics

Further information: Sense and Reference

In semantics, reference is generally construed as the relationships between nouns or pronouns and objects that are named by them. Hence, the word "John" refers to John. The word "it" refers to some previously specified object. The object referred to is called the "referent" of the word. Sometimes the word-object relation is called "denotation"; the word denotes the object. The converse relation, the relation from object to word, is called "exemplification"; the object exemplifies what the word denotes. In syntactic analysis, if a word refers to a previous word, the previous word is called the "antecedent".

Meaning

Gottlob Frege argued that reference cannot be treated as identical with meaning: "Hesperus" (an ancient Greek name for the evening star) and "Phosphorus" (an ancient Greek name for the morning star) both refer to Venus, but the astronomical fact that '"Hesperus" is "Phosphorus"' can still be informative, even if the "meanings" of "Hesperus" and "Phosphorus" are already known. This problem led Frege to distinguish between the sense and reference of a word. Some

cases seem to be too complicated to be classified within this framework; the acceptance of the notion of secondary reference may be necessary to fill the gap.

Absent referent

Main article: Absent referent

Words can often be meaningful without having a concrete here-and-now referent. Fictional and mythological names such as "Bo-Peep" and "Hercules" illustrate this possibility. Sign links with absent referents also allow for discussing abstract ideas ("love," "peace") as well as people and events of the past and future.

For those who argue that one cannot directly experience the divine (e.g. God), the sign "God" can serve as an example of a reference with an absent referent. Additionally, certain sects of Judaism and other religions consider it sinful to write, discard, or deface the name of the divine. To avoid this problem, the signifier G-d is sometimes used, though this could be seen as a sign that refers to another sign with an absent referent.

Linguistic sign

The very concept of the linguistic sign is the combination of content and expression, the former of which may refer entities in the world or refer more abstract concepts, e.g. thought. Certain parts of speech exist only to express reference, namely anaphora such as pronouns. The subset of reflexives expresses co-reference of two participants in a sentence. These could be the agent (actor) and patient (acted on), as in "The man washed himself", the theme and recipient, as in "I showed Mary to herself", or various other possible combinations.

Mathematics

In mathematics, the absent referent can be seen with the symbol for zero, "0" or the empty set, "{ }".

A reference point in Geometry is a location used to describe another point, by giving the relative position. Similarly there is the concept of frame of reference (both in physics and figuratively) and benchmark (in surveying and figuratively).

Engineering In engineering a reference design is often used during the pre-production phase of design development to test design features against original specifications.

Arts

In Art, a reference is an item from which a work is based. This may include:

- an existing artwork,

- a reproduction (i.e., photo),

- directly observed object (i.e., person), or

- the artist's memory.

Another example of reference is samples of various musical works being incorporated into a new one.

Literature and rhetoric

In academic literature, a reference is a previously published written work within academic publishing that has been used as a source for theory or claims referred to that are used in the text. References contain complete bibliographic information so the interested reader can find them in a library. References can be added either at the end of the publication or asfootnotes.

Chapter 9

Citation

Broadly, a citation is a reference to a published or unpublished source (not always the original source). More precisely, a citation is an abbreviated alphanumeric expression embedded in the body of an intellectual work that denotes an entry in the bibliographic references section of the work for the purpose of acknowledging the relevance of the works of others to the topic of discussion at the spot where the citation appears. Generally the combination of both the in-body citation and the bibliographic entry constitutes what is commonly thought of as a citation (whereas bibliographic entries by themselves are not). References to single, machine-readable assertions in electronic scientific articles are known as nanopublications, a form of microattribution.

Citation has several important purposes: to uphold intellectual honesty (or avoiding plagiarism), to attribute prior or unoriginal work and ideas to the correct sources, to allow the reader to determine independently whether the referenced material supports the author's argument in the claimed way, and to help the reader gauge the strength and validity of the material the author has used.

The forms of citations generally subscribe to one of the generally accepted citations systems, such as the Oxford, Harvard, MLA, American Sociological Association (ASA), American Psychological Association (APA), and other citations systems, as their syntactic conventions are widely known and easily interpreted by readers. Each of these citation systems has its respective advantages and disadvantages relative to the trade-offs of being informative (but not too disruptive) and thus are chosen relative to the needs of the type of publication being crafted. Editors often specify the citation system to use.

Bibliographies, and other list-like compilations of references, are generally not considered citations because they do not fulfil the true spirit of the term: deliberate acknowledgement by other authors of the priority of one's ideas.

• A bibliographic citation is a reference to a book, article, web page, or other published item. Citations should supply detail to identify the item uniquely.[5] Different citation systems and styles are used in scientific citation, legal citation, prior art, and the arts and the humanities.

Content

Citation content can vary depending on the type of source and may include:

• Book: author(s), book title, publisher, date of publication, and page number(s) if appropriate.

• Journal: author(s), article title, journal title, date of publication, and page number(s).

• Newspaper: author(s), article title, name of newspaper, section title and page number(s) if desired, date of publication.

• Web site: author(s), article and publication title where appropriate, as well as a URL, and a date when the site was accessed.

• Play: inline citations offer part, scene, and line numbers, the latter separated by periods: 4.452 refers to scene 4, line 452. For example, "In Eugene Onegin, Onegin rejects Tanya when she is free to be his, and only decides he wants her when she is already married" (Pushkin 4.452-53).[8]

• Poem: spaced slashes are normally used to indicate separate lines of a poem, and parenthetical citations usually include the line number(s). For example: "For I must love because I live / And life in me is what you give." (Brennan, lines 15–16).[8]

• Interview: name of interviewer, interview descriptor (ex. personal interview) and date of interview.

Unique identifiers

Along with information such as author(s), date of publication, title and page numbers, citations may also include unique identifiers depending on the type of work being referred to.

• Citations of books may include an International Standard Book Number (ISBN).

• Specific volumes, articles or other identifiable parts of a periodical, may have an associated Serial Item and Contribution Identifier (SICI).

• Electronic documents may have a digital object identifier (DOI).

• Biomedical research articles may have a PubMed Identifier (PMID).

• A citation number, used in some citation systems, is a number or symbol added inline and usually in superscript, to refer readers to a footnote or endnote that cites the source. In other citation systems, an inline parenthetical reference is used rather than a citation number, with limited information such as the author's last name, year of publication, and page number referenced; a full identification of the source then appears in an appended bibliography.

Systems

Broadly speaking, there are two types of citation systems (Vancouver Referencing and Parenthetical referencing) according to. However, according to Council of Science Editors(CSE) there are three main styles

Citation-Sequence System or Vancouver Referencing Styles

Vancouver Referencing Styles are a group of styles that use sequential numbers in the text. The numbers refer to either footnotes (notes at the end of the page) or endnotes (notes on a page at the end of the paper) that provide source detail. They are either bracketed or superscript. The notes system may or may not require a full bibliography, depending on whether the writer has used a full note form or a shortened note form.

For example, an excerpt from the text of a paper using a notes system without a full bibliography could look like:

"The five stages of grief are denial, anger, bargaining, depression, and acceptance."

The note, located either at the foot of the page (footnote) or at the end of the paper(endnote) would look like this:

1. Elisabeth Kübler-Ross, On Death and Dying (New York: Macmillan, 1969) 45–60.

In a paper with a full bibliography, the shortened note could look like:

1. Kübler-Ross, On Death and Dying 45–60.

The bibliography entry, required with a shortened note, would look like this:

Kübler-Ross, Elisabeth. On Death and Dying. New York: Macmillan, 1969.

In the humanities, many authors use footnotes or endnotes to supply anecdotal information. In this way, what looks like a citation is actually supplementary material, or suggestions for further reading.

Name-Year System or Parenthetical referencing

Parenthetical referencing also known as Harvard referencing where full or partial, in-text citations are enclosed within parentheses and embedded in the paragraph, as opposed to the footnote style.

An example of a parenthetical reference would be:

Depending on the choice of style, fully cited parenthetical references may require no end section. Alternately a list of the citations with complete bibliographical references may be included in an end section sorted alphabetically by author's last name.

This section may be known as:

- References

- Bibliography

- Works cited

- Works consulted

However, the in-text referencing style in online publications may differ from the conventional parenthetical referencing. A full reference can be hidden and displayed in the form of atooltip on a reader's request. This style makes citing easier and improves the reader's experience.

Citation-Name System

Superscripted numbers are inserted at the point of reference as in the citation-sequence system. However, the citations are numbered according to the alphabetical listing by author's last name of cited works in the end reference page.

Styles

Style guides

- ACS Style Guide

- AMA Manual of Style

- AP Stylebook

- The ASA Style Guide

- Bluebook

- The Chicago Manual of Style

- The Elements of Style

- The Elements of Typographic Style

- ISO 690

- MHRA Style Guide

- The Microsoft Manual of Style

- MLA Handbook

- MLA Style Manual

- The New York Times Manual

- The Oxford Guide to Style/New Hart's Rules

- The Publication Manual of the APA

- Turabian

- V

- T

- E

Main articles: APA style, MLA style, The Chicago Manual of Style, Bluebook, ALWD Citation Manual, ASA style, Harvard referencing, and Vancouver system

Citation styles can be broadly divided into styles common to the Humanities and the Sciences, though there is considerable overlap. Some style guides, such as the Chicago Manual of Style, are quite flexible and cover both parenthetical and note citation systems. Others, such as MLA and APA styles, specify formats within the context of a single citation system. These may be referred to as citation formats as well as citation styles. The various guides thus specify order of appearance, for example, of publication date, title, and page numbers following the author name, in addition to conventions of punctuation, use of italics, emphasis, parenthesis, quotation marks, etc., particular to their style.

A number of organizations have created styles to fit their needs; consequently, a number of different guides exist. Individual publishers often have their own in-house variations as well, and some works are so long-established as to have their own citation methods too:Stephanus

pagination for Plato; Bekker numbers for Aristotle; citing the Bible by book, chapter and verse; or Shakespeare notation by play,

Humanities

The Chicago Style (CMOS) was developed and its guide is The Chicago Manual of Style. It is most widely used in history and economics as well as some social sciences. The closely related Turabian style—which derives from it—is for student references, and is distinguished from the CMOS by omission of quotation marks in reference lists, and mandatory access date citation.

The Columbia Style was created by Janice R. Walker and Todd Taylor to give detailed guidelines for citing internet sources. Columbia Style offers models for both the humanities and the sciences.

Evidence Explained: Citing History Sources from Artifacts to Cyberspace by Elizabeth Shown Mills covers primary sources not included in CMOS, such as censuses, court, land, government, business, and church records. Includes sources in electronic format. Used by genealogists and historians.[16]

Harvard referencing (or author-date system) is a specific kind of parenthetical referencing. Parenthetical referencing is recommended by both the British Standards Institution and the Modern Language Association. Harvard referencing involves a short author-date reference, e.g., "(Smith, 2000)", being inserted after the cited text within parentheses and the full reference to the source being listed at the end of the article.

MLA style was developed by the Modern Language Association and is most often used in the arts and the humanities, particularly in English studies, other literary studies, including comparative literature and literary criticism in languages other than English ("foreign languages"), and some interdisciplinary studies, such as cultural studies, dramaand theatre, film, and other media, including television. This style of citations and bibliographical format uses parenthetical referencing with author-page (Smith 395) or author-[short] title-page (Smith, Contingencies 42) in the case of more than one work by the same author within parentheses in the text, keyed to an alphabetical list of sources on a "Works Cited" page at the end of the paper, as well as notes (footnotes or endnotes). See The MLA Style Manual and The MLA Handbook for Writers of Research Papers, particularly Citation and bibliography format.

The MHRA Style Guide is published by the Modern Humanities Research Association (MHRA) and most widely used in the arts and humanities in the United Kingdom, where the MHRA is based. It is available for sale both in the UK and in the United States. It is similar to MLA style, but has some differences. For example, MHRA style uses footnotes that reference a citation fully while also providing a bibliography. Some readers find it advantageous that the footnotes

provide full citations, instead of shortened references, so that they do not need to consult the bibliography while reading for the rest of the publication details.

In some areas of the Humanities, footnotes are used exclusively for references, and their use for conventional footnotes (explanations or examples) is avoided. In these areas, the term "footnote" is actually used as a synonym for "reference", and care must be taken by editors and typesetters to ensure that they understand how the term is being used by their authors.

Law

Main article: Legal citation

The Bluebook is a citation system traditionally used in American academic legal writing, and the Bluebook (or similar systems derived from it) are used by many courts. At present, academic legal articles are always footnoted, but motions submitted to courts and court opinions traditionally use inline citations, which are either separate sentences or separate clauses. Inline citations allow readers to quickly determine the strength of a source based on, for example, the court a case was decided in and the year it was decided.

The legal citation style used almost universally in Canada is based on the Canadian Guide to Uniform Legal Citation (aka McGill Guide), published by McGill Law Journal.

British legal citation almost universally follows the Oxford Standard for Citation of Legal Authorities (OSCOLA).

Sciences, mathematics, engineering, physiology, and medicine

Main article: Scientific citation

The American Chemical Society style, or ACS style, is often used in chemistry and other physical sciences. In ACS style references are numbered in the text and in the reference list, and numbers are repeated throughout the text as needed.

In the style of the American Institute of Physics (AIP style), references are also numbered in the text and in the reference list, with numbers repeated throughout the text as needed.

Styles developed for the American Mathematical Society (AMS), or AMS styles, such as AMS-LaTeX, are typically implemented using the BibTeX tool in the LaTeX typesetting environment. Brackets with author's initials and year are inserted in the text and at the beginning of the reference. Typical citations are listed in-line with alphabetic-label format, e.g. [AB90]. This type of style is also called a "Authorship trigraph."

The Vancouver system, recommended by the Council of Science Editors (CSE), is used in medical and scientific papers and research.

In one major variant, that used by the American Society of Mechanical Engineers (ASME), citation numbers are included in the text in square brackets rather than as superscripts. All bibliographical information is exclusively included in the list of references at the end of the document, next to the respective citation number.

The International Committee of Medical Journal Editors (ICMJE) is reportedly the original kernel of this biomedical style, which evolved from the Vancouver 1978 editors' meeting. The MEDLINE/PubMed database uses this citation style and the National Library of Medicine provides "ICMJE Uniform Requirements for Manuscripts Submitted to Biomedical Journals -- Sample References".

The style of the Institute of Electrical and Electronics Engineers (IEEE), or IEEE style, encloses citation numbers within square brackets and numbers them consecutively, with numbers repeated throughout the text as needed.

Pechenik Citation Style is a style described in A Short Guide to Writing about Biology, 6th ed. (2007), by Jan A. Pechenik.

In 2006, Eugene Garfield proposed a bibliographic system for scientific literature, to consolidate the integrity of scientific publications.

Social sciences

The style of the American Psychological Association, or APA style, published in the Publication Manual of the American Psychological Association, is most often used in social sciences. APA style uses Harvard referencing within the text, listing the author's name and year of publication, keyed to an alphabetical list of sources at the end of the paper on a References page.

The American Political Science Association publishes both a style manual and a style guide for publications in this field. The style is close to the CMOS.

The American Anthropological Association utilizes a modified form of the Chicago Style laid out in their Publishing Style Guide.

The ASA style of American Sociological Association is one of the main styles used in sociological publications.

Boundary marks

In the case of direct citations, the boundaries of a citation are apparent from the quotation marks. However, the boundaries of indirect citations are usually unknown. To clarify these boundaries, citation marks (⌐...⌐) can be used. Example:

This is sentence 1. ⌐This is sentence 2. This is sentence 3.⌐ (Smith et al., 2013)

Here, it becomes apparent from the citation marks that the citation refers to both sentence 2 and 3, but not to sentence 1.

Issues

In their research on footnotes in scholarly journals in the field of communication, Michael Bugeja and Daniela V. Dimitrova have found that citations to online sources have a rate of decay (as cited pages are taken down), which they call a "half-life," that renders footnotes in those journals less useful for scholarship over time.

Other experts have found that published replications do not have as many citations as original publications.

Another important issue is citation errors, which often occur due to carelessness on either the researcher or journal editor's part in the publication procedure. Experts have found that simple precautions, such as consulting the author of a cited source about proper citations, reduce the likelihood of citation errors and thus increase the quality of research.

Research suggests the number of citations an article receives can be, partly, explained by superficial factors and not only by the scientific merits of an article. For instance in Medicine among other factors the number of authors, the number of references, the article length, and the presence of a colon in the title influence the impact. Whilst in Sociology the number of references, the article length, and title length are among the factors.

Citation patterns are also known to be affected by unethical behavior of both the authors and journal staff. Such behavior is called impact factor boosting, and was reported to involve even the top-tier journals. Specifically the high-ranking journals of medical science, including the Lancet, JAMA and New England Journal of Medicine, are thought to be associated with such behavior, with up to 30% of citations to these journals being generated by commissioned opinion articles.

Chapter 10

References

1. Price, D. "Sistema nauchnykh publikatsii." Uspekhi fizicheskikh nauk, 1966, vol. 90, issue 2, pp. 349–59.
2. Mikhailov, A. I., and R. S. Giliarevskii. Istochniki, poisk i ispol'zovanie nauchnoi informatsii. Moscow, 1970.
3. Lescroël, A. L.; Ballard, G.; Grémillet, D.; Authier, M.; Ainley, D. G. (2014). "Antarctic Climate Change: Extreme Events Disrupt Plastic Phenotypic Response in Adélie Penguins". In Descamps, Sébastien. PLoS ONE 9: e85291. doi:10.1371/journal.pone.0085291.
4. Data Collection and Analysis By Dr. Roger Sapsford, Victor Jupp ISBN 0-7619-5046-X
5. Weimer, J. (ed.) (1995). Research Techniques in Human Engineering. Englewood Cliffs, NJ: Prentice Hall ISBN 0-13-097072-7
6. Laudon, Kenneth C. (2007). Management Information Systems. Upper Saddle River: Pearson. p. 226. ISBN 978-0-13-157984-2.
7. Marston, Tony. "The Relational Data Model - Normalisation and Effective Database Design".
8. Laudon, Kenneth C. (2007). Management Information Systems. Upper Saddle River: Pearson. p. 229. ISBN 978-0-13-157984-2.

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