

INFORMATION LITERACY: A REFORMED GUIDE TOWARDS TOOLS AND TECHNIQUES**Ali Akbar Petiwala ***

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ABSTRACT: - *Information literacy is the ability to discover and use various types of information. It's an essential skill for navigating the information age. Paper will talk about more on how to learn about strategies for finding information from a library, archive, database, or the Internet and the ethics of using it. Paper also discusses about different types of resources and explains how to evaluate their usefulness. Paper also shows how to avoid plagiarism and copyright infringement, and accurately cite sources. This paper helps readers to become better, quicker and more thorough researcher and better student too. Paper will also help to understand the massive world of information, information which contains in libraries as well as more massive information online. The paper will go through different types of resources and navigation through them and also challenge the way we think about search query to help us better find the information which we are looking for. Paper also discusses about popular and scholarly sources through how user can ethically use the information that has been discovered by them.*

KEY WORDS – E-learning, Education, Information Literacy, Copyright, Plagiarism, Online Searching, Online Database.

1. INTRODUCTION

We are now living in the time referring to information age. World of information is big and it's growing extensively. Some say the amount of information in the world is doubling every two years. This includes everything from print versions of books and magazines and libraries to digital information on website and in databases.

That's why everyone can benefits from continuing

to learn about information literacy. The most basic definition of information literacy is a set of skills that are useful in finding, evaluating and effectively using information. An expanded definition of information literacy includes deepening of understanding the entire information Ecosystem this means all formats including print, media and the internet. If the reader have knowledge about on how information gets created

and about the types of information that are available for use, they become better, navigating the massive growing world of information. Information Literacy is the set of skills needed to navigate research but it's also approaches to show broader understanding of information of the world. If readers have understanding on how information is created, the relative value of the information they find and the ability to synthesize it.

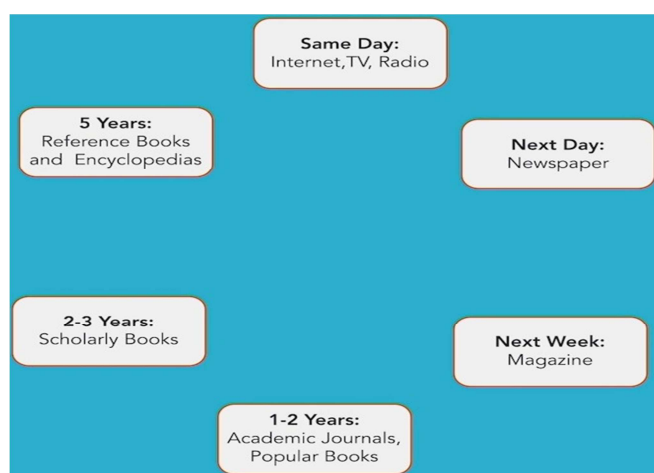


Figure 1: Explains the Information Cycle

The process of changing news and media coverage of events over time is called the Information Cycle. A news story goes through different stages across various media formats, because of that we hear a news story first on the Internet, then on television, radio, and newspapers. Later it appears in magazines and academic journals, and eventually it is published into books. If we want to become a better researcher, it is very important to know how information is created, how it is transmitted, and how it changes over time. If any major or minor event is taking place, reports are always there for

covering big public event but at the same time many observers start clicking the photographs on social media as well as they start sending the tweets on twitter. After some time, journalists cover that scene and ultimately citizen report gets published on twitter which acts as primary sources. Within the first few hours, Facebook and Wikipedia pages were created and then news report are generated in the newspaper next day which are often with distorted facts.

Later all these articles are examined by the professional journalists which also covers over view of the entire and are considered secondary sources. After a week time, it will appear in weekly news magazines and after over viewing all the articles it will appear on academic journals which will again go for in depth study for at least 3-5 years' and then it will get published by the professional author in form of a book. It is very important to analyze the data first and the platform from where we are getting the information.

2. WORKING WITH BOOKS, PERIODICALS, DATABASES, AND WEB RESOURCES

2.1 E-books

So how do we know what type of sources is best for your research. We find the answer to research question in a book, an article, a newspaper or

online. Knowing what type of information we will find in a variety of sources will help us to make decision, depending on where we are on information cycle. Books are the first thing which comes to our mind and libraries. There are two types of physical books viz. Circulating books that are checked out and reference books which are mainly viewed inside the library premises. Books are also published in electronic format called E-books. Books have greater depth and provide more information on topic than any other sources of information. Books can cover a topic in great details and most books are written by author with expertise in particular subjects. The full text articles goes to vigorous editorial process and fact checking. This process makes sure that the information we receive is accurate. Because of the detailed and in-depth nature and it's a good idea of scanning the content pages and index or bibliographies to identify on which topic we want the information.

Many libraries have got their own catalogue from which a researcher can navigate the contents of E-books or E-reference books which are available online as result. Some libraries subscribe to most common online databases like ebrary and ebscohost which help the researcher to find authentic information related to their topic. There are other places where we can find e-books on open web which are full text on www.Gutenberg.org or www.books.google.com website. E-books can be

downloaded on mostly on all electronic devices like computer, iPad, smartphones etc. Let's talk about finding books; a good place to start is library online public access catalogue. We can find books which are arranged according to classification number and subject heading along with the location. The most common call number classification is Library of Congress (LC) and Dewey Decimal System (Dewey). The LC system is mostly used by academia and museum. The Dewey system is typically used by Public Libraries and K-12 Libraries. Advantages of Online Library Catalogue include frequent updates, circulation status, remote access and request materials. Some people refer active reading a physical book and other follow convenient portability caring books on device.

2.2 Archives

Let's talk about how to access archival materials for your research. Archives are similar to libraries which provide access to diverse range of materials. However they are different from libraries and type of materials they hold and the way we access those materials. It can be defined as accumulation of historical records, or the physical places they are located. The Society of American Archivists describes what type of material does archives hold i.e. published and unpublished material in any format. Archival materials are considered as primary sources. A primary source is a document or physical object

written or created during the time period being studied. Example of primary sources is manuscript, letter, artwork, photographs, video & audio, books, diaries and artifacts. Archival materials can be used by undergraduate, graduate, faculty and other researchers. Often archives have a specific focus on history, politics, literature or arts. Excessing archival material is done with specific guidelines develop by each individual archive. Archivist, the people charge of caring the archival collection develops these guidelines in order to preserve it for today and the future. Types of collection includes student alumni & faculty papers, image files, artist & biographical files, artworks & objects, sound recordings, university publications posters etc. all of these can be appear in digitized form which can be likely to access from the repository websites.

2.3 Periodical publications

A periodical comes in many forms, knowing what kind of information we require on our chosen topic, need to decide which will provide best information for the research. Periodicals are published on daily basis, weekly, monthly, quarterly etc. A periodical publication includes general magazines, scholarly journals, trade journals and newspapers. Magazines provides information which is not immediate, it can incorporate both research and facts but they oftenwritten on their point of view. Magazines arewritten for general audience, on generalized

topic and they are considered as secondary sources. Magazines are edited but not peer reviewed. It doesn't include bibliographies but always comes with advertisements. Scholarly journals may conduct detailed studies or analysis of events. Editors normally peer reviews the articles which are consider to be more relevant and they are specialized in subjects, accuracy etc. Scholarly journals are written for specialized audience which is written by expert in the field. Scholarly journals are considered as primary resource comes with bibliographies and no advertisement. Trade journals are different from scholarly journals because they are written for specific professionals like news update etc. The articles are generally brief and come up in very professional languages. Trade journals are written for professional audiences which arewritten by professional or expert in the field. Contents are reviewed by editorial staff which also includes bibliographies and may also include advertisements related to the profession. Newspapers provide information on current events and articles are written in simple language which can be understood by everyone. Articles are written for general audiences which are peer reviewed by editorial staff. It consists of many advertisements but no citation is given.

2.4 Databases

A research database is a set or collection of data which is gathered and made available via computer. Most of the databases which we are going to use is basically comes from our academic

public library. We use databases to find journals articles, studies or other scholarly sources. It is not possible for every academic library to subscribe to all printed journals as it may cause storage and cost issues as well. As a result libraries subscribe to online databases which help to get aggregate information, indexing technique which results in better search ability throughout database. Libraries are paying for journals so that we can access to broader world of information which we can't find on surface web. Our institute library website is the best place to find the list of subscribed databases. Widely used databases are JStor, Ebsco, Emerald, ProQuest etc.

2.5 Visual resources

Visual resources are the collection of images in print or electronic format found in various environments. It is available in digital formats, databases or through online tools. Searching for images or video file is little bit tricky than searching for the books. We need to define specific key terms or specific vocabulary for better and desired results. The New York Public Library, Library of Congress, British Library provides wide range of visual resources which contains prints, photographs, maps, manuscripts, streaming video & more.

2.6 Alternative resources

Types of alternative resources contains maps, geographic information systems, data sets, statistical data, materials, objects & artifacts, informatics, information graphics and film, videos and motion pictures all of these are great source of information. Maps are great sources of visual information, they can be used by aviation department, trail guides, travel guides to roads, nautical charts to guides watercraft. Geographic Information Systems is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data. GIS is used by biologist, geologist for forecasting natural disaster or to check out for population growth etc. Data sets can be used in various fields like astronomy, sociology, biology, government, economics studies, climatology, financial analysis and healthcare field. Statistical data is used to find the census results, crime statistics, environmental status and sports records. Material collections is a range of physical items like textiles, papers, wood, building materials, plastic, marbles or metals, Some design libraries has got free collection of materials. Objects and Artifacts are valuable sources of information. Some examples include sculptures, clothing, household items, decorative arts etc. Informatics is the study of computerized systems that develop, use, and convey information. They are also used in bioinformatics, medical & healthcare industries.

2.7 Wikipedia

Wikipedia is the 7th most visited website in the world, Wikipedia is a kind of encyclopedia holding comprehensive summary of information & knowledge. Wikipedia is launched in 2001 which is also considered as internet encyclopedia. Moreover anyone can edit Wikipedia page and information is nearly accurate as Britannica. There so many editors and mistakes are often corrected very quickly. Encyclopedias are for preliminary research only. Wikipedia give us some basic good overview, we can identify keywords which is the starting point to search any databases. Mostly along with that we can find bibliography and references at the end so it's easy to navigate to sources online.

3. CHOOSING SEARCH TERMS

Searching online seems like a simple task and many people do it on daily basis. Search strategies like keywords searching, subject heading, controlled vocabulary to lead us to better results for our results. Keyword searching or free language term is mostly like we type in google or concept map terms or may be encyclopedia entries. Controlled vocabulary or special name authority are established forms of name & phrases to make the result more digestive.

Sometimes even with keyword or controlled vocabulary we find a need for additional tools to

narrow or broaden our search results. To do so, we can use Boolean terms in conjunction with our keywords and controlled vocabulary phrases. Just like controlled vocabulary, Boolean terms were developed to guide online searches. AND, OR, & NOT are Boolean terms. They are small simple words but powerful search tools. Using the 'and' operator narrow our search by instructing the catalog or database for the catalog records containing first word and then for the entire catalog records containing the second word. This search will result containing both words. The 'or' operator broader our search as it includes either term technique. This term will help us if we are looking for multiple term results. The 'not' operator narrow our search by excluding records which we don't want to discover.

4. EVALUATING RESOURCES

4.1 Beyond Google

When people use internet to find information, by large they start with Google, of course this can be a good way to go as there is seamless information out there. A search engine uses algorithms which crawl through indexes and provide us with tailored results. Typical search engines like Google, Yahoo or Bing can access only tiny fraction of the internet i.e. the surface web. The invisible or deep web contains the information 100x times larger than what is on surface web. Invisible web contains the pages that haven't yet

been published or subscription database or pages we need password to access.



Figure 2: Example explaining Visible & Invisible Web

4.2 The web vs. databases

Library subscribe to database because not all information can be available on the surface web. Web will results in tons of results and variety of sources whereas database will output only scholarly articles and on specific subject when given a search term. Benefits of database can be stated as the information retrieved can be checked for where and when it was published. We can also group according to peer-reviewed or not and also results appear more subject specific. Open web can help us to familiar with the real-time event information and moreover updated modification made to specific area.

5. ETHICAL USE OF INFORMATION

5.1 Copyright and fair use

Copyright Law protects the legal rights of a creator of any material and governs the use of copyrighted materials. Copyright term can be renewed or transferred, if it's not renewed the material will be considered in public domain as all can access it free of charge. Fair use can be term as the fair reproduction dialogs like criticism, comments, news reporting, Research articles are likely to be share by all and can make necessary changes to it. Copyright and Fair use law exists to protects creators, authors and also encourages creativity at times.

5.2 Plagiarism - What it is and how to avoid it

Plagiarism is using someone else's work without giving the original author credit for it. Plagiarism is using another author's words or ideas, quoting or paraphrasing without citation, taking ownership of someone else's unique ideas or repurposing our own work. We can avoid plagiarism by using our own words; credit the original source, use quotation marks, double checking the works in order that everything is properly cited.

6. CITING SOURCES

6.1 What is citation and why cite

If we are doing any research and find any information useful, it's required to quote the actual author and it can be done through citation. Reason to carry out citation is to avoid plagiarism; it can be counted at the proof that we have done genuine research. It can lead us to the other great sources. Citation is required when information that we did not know before our research. Citation tells the users that information is not ours originally, it also tells us from when and where idea is coming from. Citation is not required when we think of common knowledge.

6.2 How to cite

There are different styles which we have to follow whenever we cite something. Citation undergoes styles like MLA (Modern Language Association), APA (American Psychological Association), Chicago and more comes in different style of writing like details, order and syntax used. Citation leads us back to the source. We need to follow key information while citing any material like information of author, title of the work, publisher name and location, date of creator, page numbers etc.

7. CONCLUSION

Research skills are important for any educated person. For any research we can't rely on Google for everything. In fact numerous studies shows that college graduate certainly looking out for very organized and evaluated information on internet which only search engine like Google or Yahoo can't provide. Online Database can be the best option for the studied information if one is going for. Librarians are experts in research as they obtain master's degree in library & information science and they are always eager to help us out. Paper incorporates various methods and techniques on how to get genuine information through various sources.

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