

Documentary Research & Thesis Design



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Table of contents

I - Chapter 02: Selecting Information Sources	3
1. Objectives	3
2. Types of documents	3
3. Type of resources	5
4. Assess the quality and relevance of information sources	8
5. Exercice : Civil engineering area	12
6. Exercice : Evaluating of the quality of a source	12
Exercises solution	13

I Chapter 02: Selecting Information Sources

Following the *analysis* and *definition* of the *topic*, it is essential to select the ***most appropriate information sources*** for the literature review.

This process encompasses two dimensions:

- The documents requested include monographs, journal articles, reports, review articles, dissertations, and theses.
- The types of resources to explore include *library catalogs, databases, web search engines, and specialized portals*.

1. Objectives

At the end of this chapter 02, the student will be able to:

In terms of understanding:

- ***Distinguish*** the most appropriate information sources for the literature review.

In terms of application:

- ***Application*** of techniques to ***avoid*** plagiarism and ***respect*** research ethics in writing.

In terms of analysis:

- ***Analyze*** the methods that define the selection of the information sources.
- ***Evaluate*** information sources' structure, dependability, and biases.

2. Types of documents

 ***Definition***

The ***classification*** is contingent upon the *level* and *nature* of the information required.

⚙️ Method: Types of documents in scientific and technical fields

Various types of documents in scientific and technical fields contain different kinds of information. Understanding the primary characteristics of these document types is beneficial, as it enables **the selection of the most suitable ones** for research purposes.

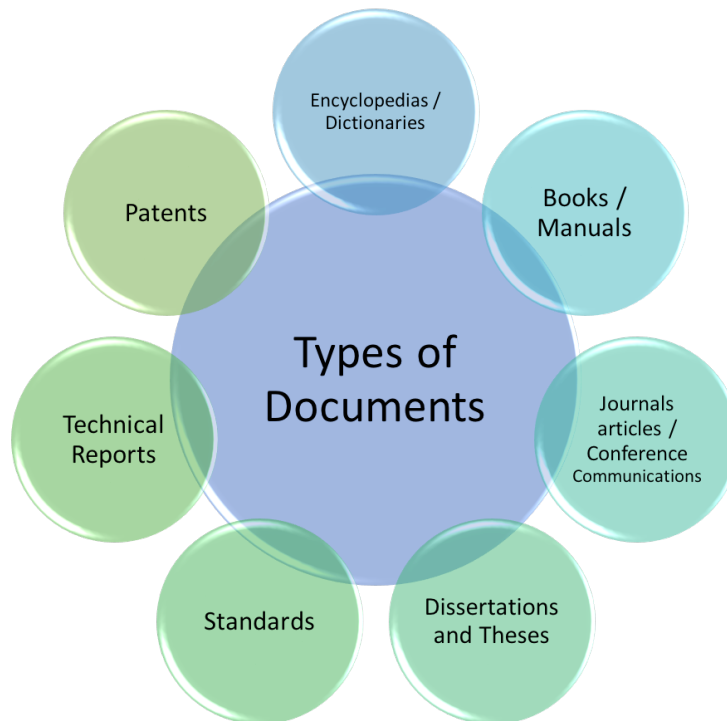


Fig. 7. Which type of documents will you need?

⊕ Complement: Category of documents

This **category** encompasses:

1. *Textbooks* offer a comprehensive overview of a subject.
2. *Reference guides* offer a succinct overview of a topic.
3. *Comprehensive analyses* that examine a particular facet of the subject with increased specificity.
4. *Conference proceedings* serve as the official documentation of a congress.
5. *General and specialized periodicals* facilitate awareness of recent research findings and current events pertinent to social issues.
6. *Theses, dissertations, and research reports* (grey literature) maintain a high scientific standard and are suitable for exploring complex topics.
7. The utilization of *specific documents, such as maps, patents, images, and statistical data*, is contingent upon the disciplinary field or the methodological approach selected for addressing a subject.
8. *Official documentation* encompasses all documents published by the State (Wilaya), including *laws, decrees, regulations, public contracts, and associations*.

🔍 Example: Data bases and monographs

Data bases such as articles and thesis serve as *valuable resources for comprehending and elucidating topics*, particularly when encountering new concepts. **Books** or **monographs** serve as crucial resources for comprehensive research.

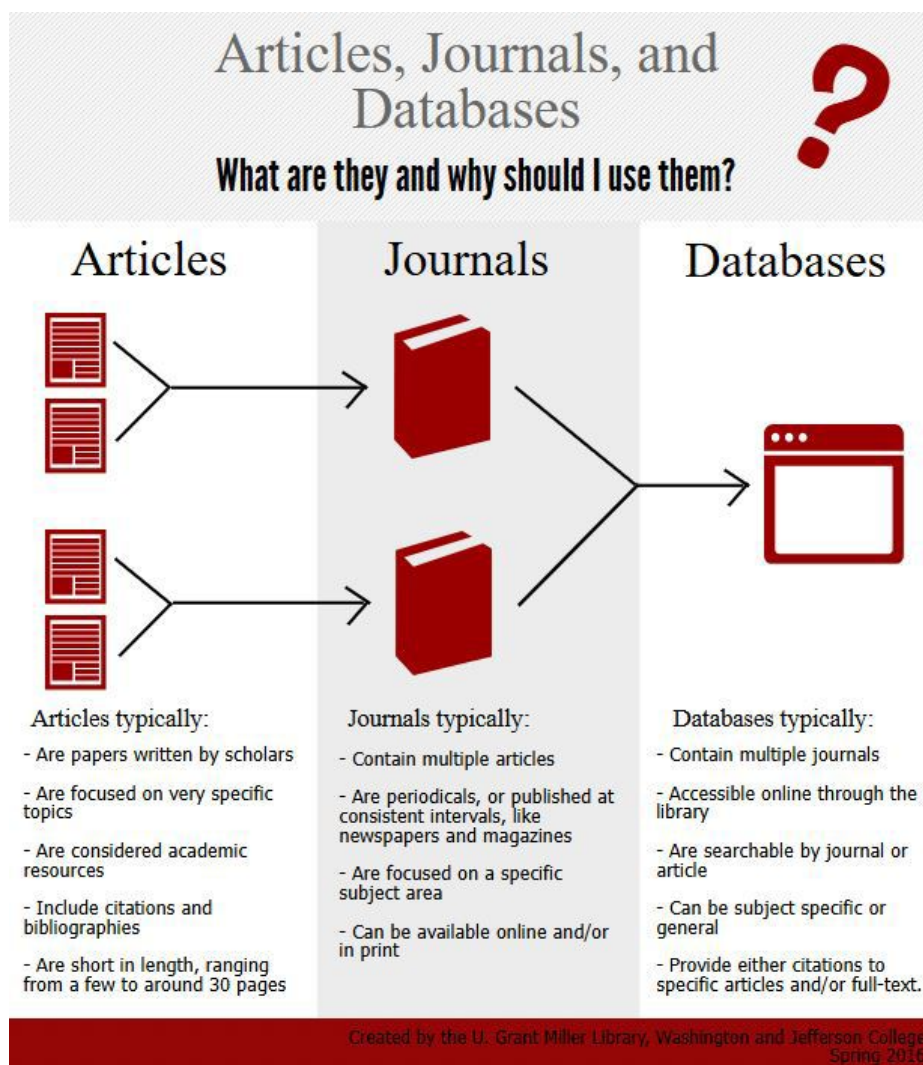


Fig. 8. Articles, journals, and databases.

3. Type of resources

🔍 Definition

The **resource's type** will be contingent upon the *subject's nature* and the *specific document required*.

Library catalogs

They are multidisciplinary resources crucial for locating print documentation, they are multiple resources such as:

- The *SNDL* gives you access to a very rich and varied national and international electronic documentation covering all areas of teaching and scientific research.

- The catalog of *Avignon University Library*.
- The university union catalog *SUDOC*.
- *WorldCat* is a global catalog of library materials.
- The catalog of the *National Library of Algeria*.

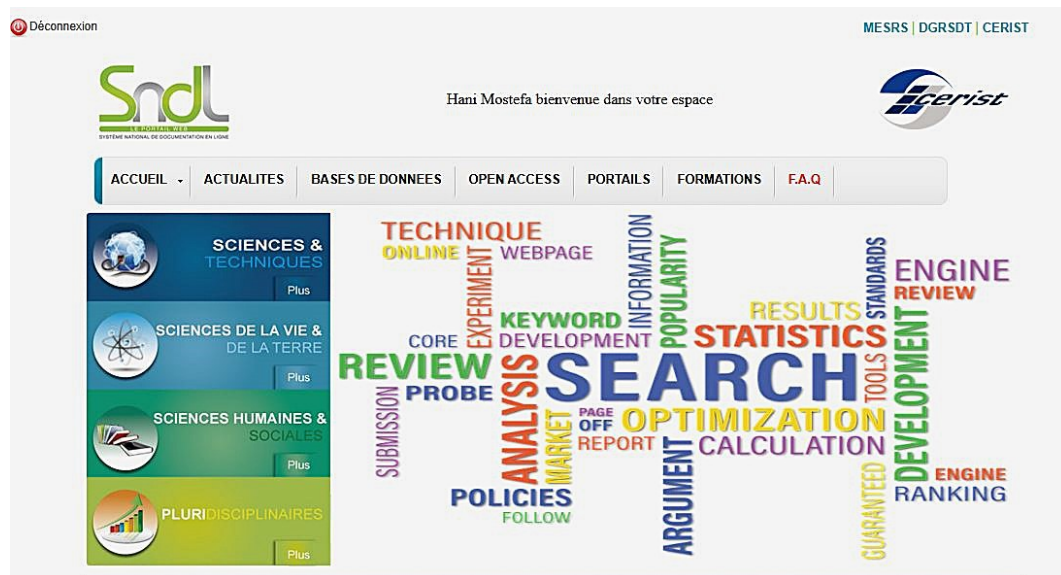
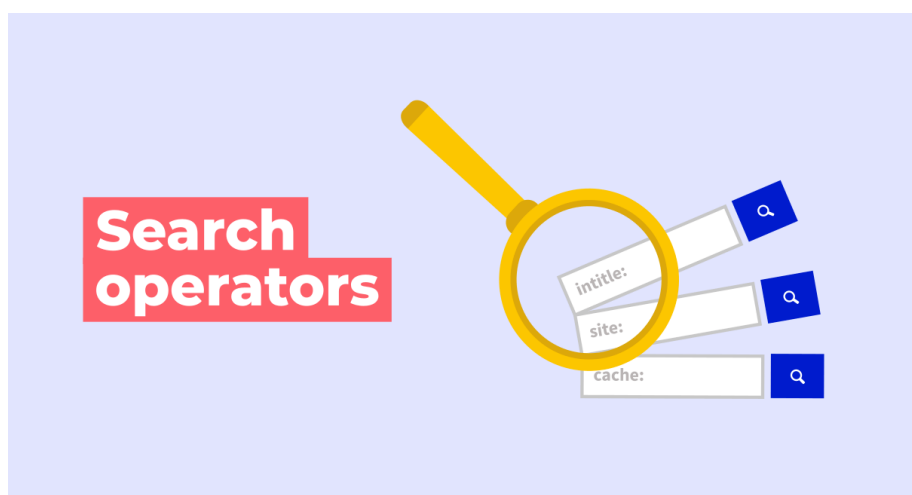


Fig. 9. SndL Algerian and international electronic documentation platform.

+ Complement: Bibliographic databases

These are organized collections of bibliographic references pertaining to a specific subject, field, or document type. The documents may include an analysis, a summary, and, increasingly, access to the complete text of the document. They have multiple choices like:

- *Multidisciplinary databases* include Scopus, JSTOR, DOAJ, and (WOS).
- *Specialized databases* include LexisNexis, Doctrinal (law), EconLit, Business Source (economics), and arXiv.org (mathematics and physics).
- *Access to the complete text* of the document is available through JSTOR, EconLit, and *Thèses-Algérie*.
- *Limited or incomplete access to the text*: Periodic, and Pascal and Francis.



<i>Document type</i>	<i>Characteristics</i>	<i>Primary use in research</i>
Scholarly book	Comprehensive, in-depth treatment of a broad topic; peer-reviewed; often foundational texts.	Establishing foundational knowledge, historical context, theoretical frameworks.
Doctoral dissertation / Master 2 Thesis	Original, extensive research contributing new knowledge to a field; evaluated by a committee; unpublished or published by university.	Detailed primary research, methodological insights, specific case studies.
Journal article (Paper)	Concise, focused on specific research questions or findings; rigorous peer-review; published in academic journals.	Reporting novel/new findings, current research trends, specific experimental results.
Conference proceeding	Collection of papers presented at an academic conference; often preliminary or cutting-edge research; peer-reviewed or editor-reviewed.	Accessing emerging research, interdisciplinary perspectives, rapid dissemination of findings.

Table 1. Resources according to document types.

 **Note:** *Factual databases and text corpora*

Factual databases provide *directly usable information* for the user, such as Maitron.

Text corpora consist of *collections of texts* that are thematically or historically related, such as EEBO.

 **Example:** *Web resources*

Web resources are numerous; however, their quality varies significantly, and the information is often unstable. Presented below are recommended websites for the retrieval of scientific and academic information, organized by category.

1. Specialized search engines:

- Google Scholar.
- Google Books.
- Google Patents.
- ResearchGate.

2. Scientific or thematic portals:

- Algerian Thesis Portal.
- Thèses-Algérie.

4. Assess the quality and relevance of information sources

Definition

This step is crucial for **validating** the *quality* and *relevance* of the collected information. Information must satisfy both *criteria* for *utilization*.

Research should rely on **credible information**. This is particularly applicable in the context of website research. Information with an *unknown origin* should be *eliminated*.

Method: Assessing source reliability

What are the **primary criteria** for assessing source reliability?

- The creator or distributor of the resource.
- The date of publication for the document.
- The resource's domain (URL).
- The website's purpose.
- The website's reputation or popularity.
- The information's content includes its structure, argumentation, and sources.

[cf. Assessing the quality of Research]

Fundamental: Source quality assessment

To ensure the retention of **high-quality information**, the following criteria must be evaluated:

1. Credibility of the information.
2. Information Accuracy.
3. Purpose of the Information.
4. Significance of the information.





Fig. 10. Evaluating credibility of articles.

Example: Credibility of the information, information accuracy, purpose of the information, and significance of the information

1. Credibility of the information

The author's reputation and standing:

- Is the author referenced?
- What is their area of expertise?
- Do they receive frequent citations in other publications that discuss the same topic?
- Is the syntax of the document credible?
- Is the presence of the author on a website significant, regardless of whether it is an institutional, personal, collaborative, association, commercial, or media site (such as an online newspaper)?
- What is their purpose: to sell a product, disseminate objective and truthful information, or promote an opinion and persuade the reader?

2. Information accuracy

Verifiability of Information:

- Is the information presented thorough and well-documented?
- Are the sources capable of being verified?

- Have the facts been verified? Are copyrights upheld?
- Is the document considered official?

3. *Purpose of the information*

Subjective versus Objective Information:

- Does the author aim to persuade or to provide information?
- Do they convey a general opinion or a personal viewpoint?

4. *Significance of the information*

Date of publication:

- Are updates conducted regularly?
- Are the publications current?

See: *Credibility & Peer review*

⊕ *Complement: Assessment of source relevance*

Prior to reviewing the document, ensure that it ***aligns with the relevant keywords*** of the subject matter. A brief examination may adequately determine the *content's relevance*. To accomplish this, it is necessary to analyze the subsequent elements:

1. The document's ***title***, specifically for a book, can be found on the title page.
2. ***Abstract*** and ***keywords*** are typically located at the beginning or end of journal articles, in most bibliographic records from databases, and frequently on the back cover of books.
3. ***Table of Contents***: this facilitates comprehension of the content, including the structure and logic of the argument, and allows for the easy identification of relevant chapters.
4. ***Tables, graphs***, and similar ***visual aids*** can enhance comprehension of the topic and contribute to the overall work.
5. ***Document classification***: ascertain if it falls under educational, research, or popular science categories.
6. ***Introduction*** and ***Conclusion***: analyzing these sections aids in recognizing the primary question and the conclusions reached by the author.

🔍 *Example: Identification of pertinent information*

Consequently, the identification of pertinent information can be accomplished by posing a straightforward question:

- Is the information collected applicable to my research?
- Will it contribute to the support of my argument?
- Are there any quotations or examples that I could emphasize?
- Does the information provided align with my expectations?
- Is it overly simplistic or excessively specialized?
- Does the collected information enable me to address the questions posed?

Establishing a document monitoring system

With the advancement of research, ***establishing an automated information monitoring system is advisable***. This enables ***alerts for new publications*** in a specific field, eliminating the need for manual searches across each source.

🔍 Example: Email, a selected aggregator account, or a personalized web page

- The user obtains notifications from the various tools configured for monitoring purposes.
- Messages may be received via email, a selected aggregator account, or a personalized web page, depending on the specific case.

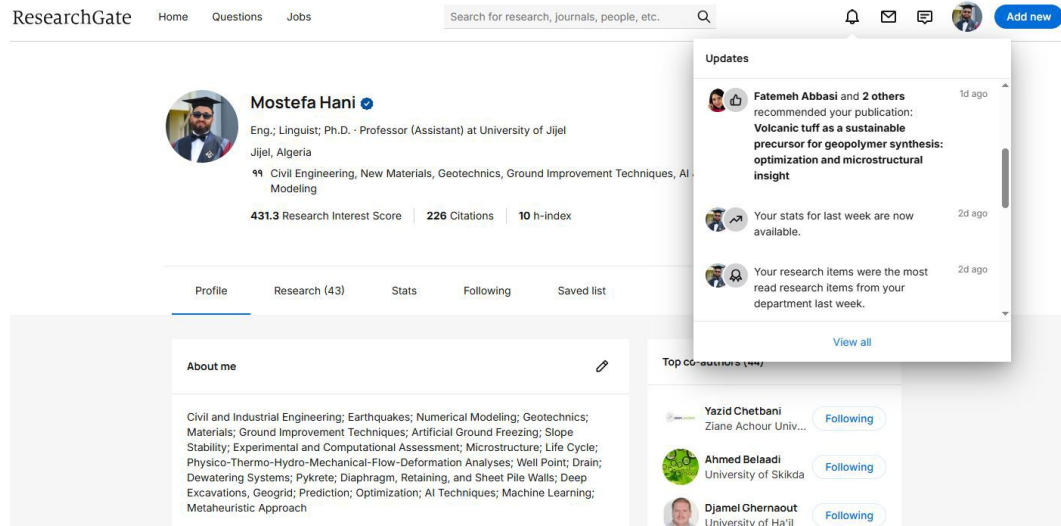


Fig. 11. Types of notifications from the social networking platform for researchers, ResearchGate.

🔗 Note: Search profile

This profile generally depends on *storing a search query* and *associated filters* that delineate its parameters, as well as subscribing to the outcomes of this automated query. This feature necessitates the *creation of a user account* when accessible.

🔍 Example: Databases and internet sources

- The user is required to establish a search profile for each chosen tool, including databases, internet sources such as search engines, journal publisher websites, and blogs.
- **ORCID**: an acronym for **Open Researcher and Contributor ID**, serves as a free, unique, and persistent identifier (PID) for individuals participating in research activities.

5. Exercice : Civil engineering area

[solution n°1 p.13]

Where do you click when you search for an article talking about the civil engineering field?

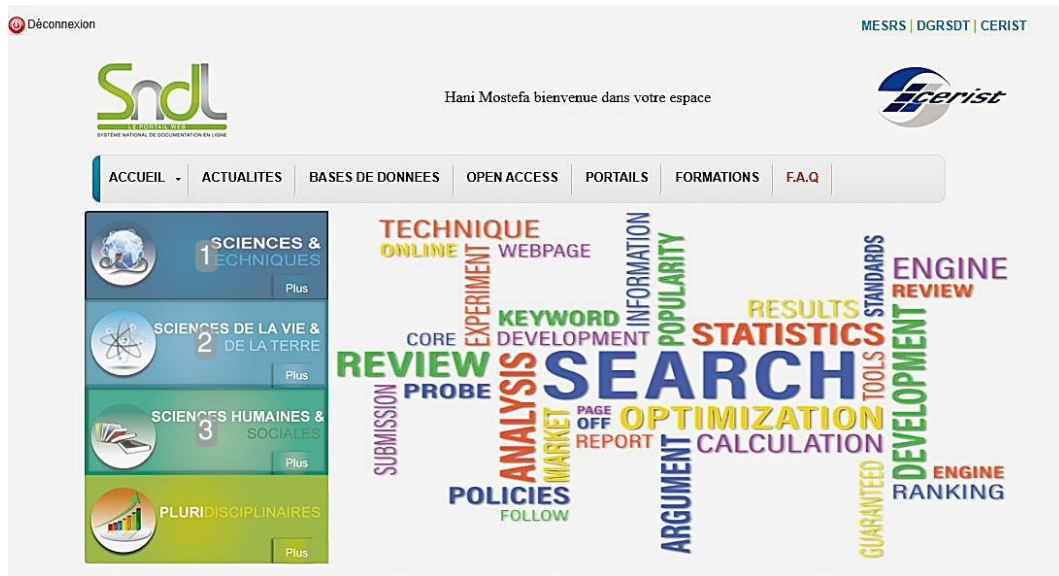


Fig. 9. SNDL Algerian and international electronic documentation platform.

6. Exercice : Evaluating of the quality of a source

[solution n°2 p.13]

In the assessment of source quality, which factors offer the most compelling indication of its reliability?

- ☐ The frequency of document downloads.
- ☐ The qualifications of the author along with their associated institution or professional organization.
- ☐ The aggregate count of pages present in the document.
- ☐ The actual existence of the information in the main text and cited in the references.

Exercices solution

> Solution n° 1

Exercice p. 12

Where do you click when you search for an article talking about the civil engineering field?

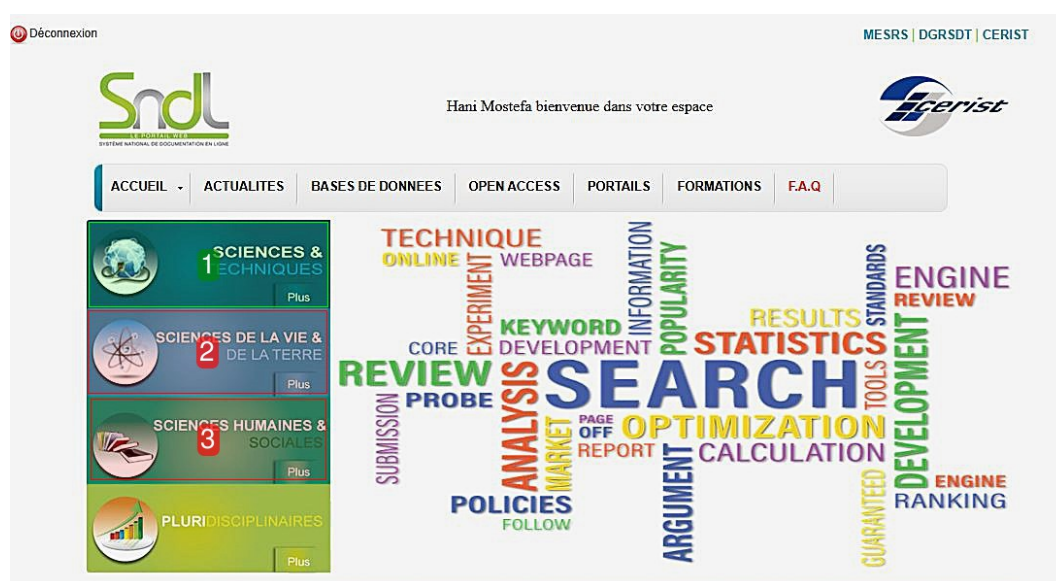


Fig. 9. SNDL Algerian and international electronic documentation platform.

> Solution n° 2

Exercice p. 12

In the assessment of source quality, which factors offer the most compelling indication of its reliability?

- ☐ The frequency of document downloads.
- ☒ The qualifications of the author along with their associated institution or professional organization.
- ☐ The aggregate count of pages present in the document.
- ☒ The actual existence of the information in the main text and cited in the references.