Information Skills in Information Technologies
16/09/2019

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Program

1. Search engines + Ethical use of information → TODAY!!

2. Databases and professional sources of information (I) + INSPEC → 30/09/19

3. Databases and retrieving information (II) + ISI WOS + Scopus + Scientific communication. Open Science. Digital identity → 07/10/19

4. Managing and communicating information. Social media in Science. Mendeley.) → 14/10/19

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Evaluation

- ✓ **Readings and exercises at:** http://atenea.upc.edu/
- ✓ **4 mandatory exercises:**

Exercise	Deadline	% mark
1	23/09/19	25%
2	07/10/19	25%
3	14/10/19	25%
4	21/10/19	25%

- ✓ **Delay in handing the exercises → -0,5 per day**

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Today we're going to see:

1) Information skills
2) The catalogue
3) Internet resources:
   Google Scholar,
   Semantic Scholar
4) Evaluation of information
5) Plagiarism and citations

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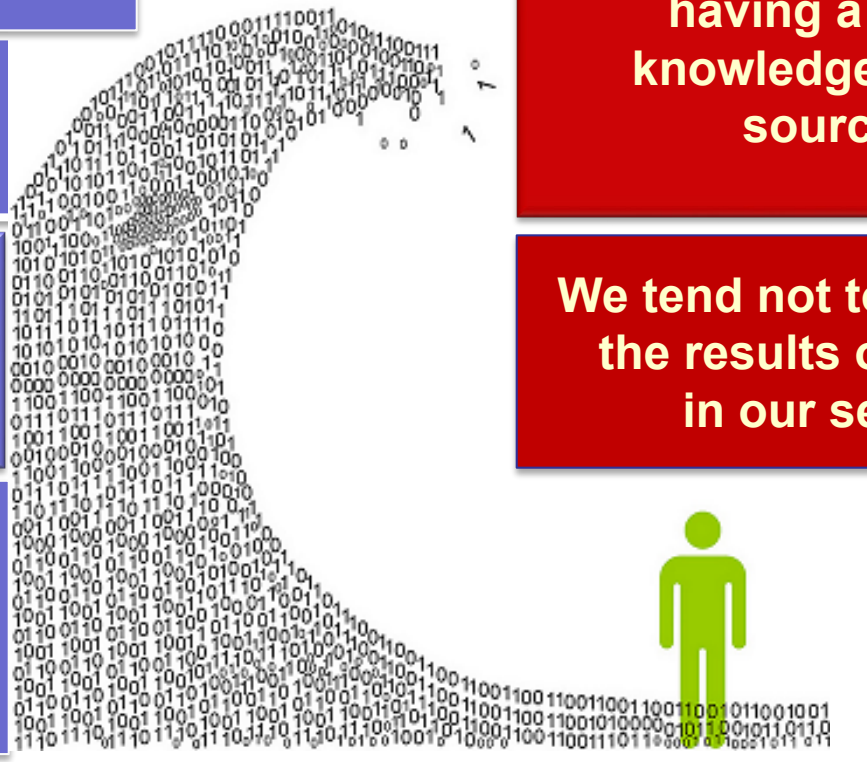
Information Skills

More than 48 billion of URL of URLs in Google's index

More than 4,5 milion of articles (in English) on Wikipedia

Irregular quality of contents

Information is disperse in diverse sources



We tend to search information without having a deep knowledge of the sources

We tend not to evaluate the results obtained in our search

Mark Smiciklas

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Which sources?

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Catalogue

What is a catalogue?

It is a database useful to know

- **the documents held by a library or group of libraries** (books, journals, DVD, etc.)
- where these materials are **located**
- which is their **availability** to consult or loan them

Usually we don't find in a catalogue:

- Journal articles, book chapters, conference papers

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Catalogue

Accés directe a:

- Catàleg UPC
- Usuari: El meu compte / Catàleg UPC
- UPCommons
- Producció científica de la UPC
- Laboratori Virtual d'Idiomes
- Oficina de documentació i arxiu

Serveis destacats

- Catàleg de les biblioteques
- Revistes electròniques
- Bases de dades
- Sessions d'acollida a les Biblioteques
- Préstec de documents
- La biblioteca t'ajuda a...

http://bibliotecnica.upc.edu

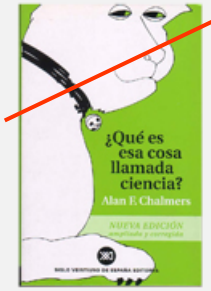
Type the keyword(s) in the box below then press Enter or click the Search button.

Keyword | View Entire Collection

Search at UPC | Search at CCUC

Search tips:
- Type the keyword(s) you want to find
- Use quotation marks to find exact phrases
- You may use the boolean operators AND, OR and AND NOT between words

Advanced search:
- To refine your search (e.g. by which library owns the document, by date, by language), use the Advanced Search



Alan F. Chalmers

¿Qué es esa cosa llamada ciencia?

18ª ed.Madrid : Siglo XXI de España Editores, S.A

ISBN 84-323-0426-3

Col·lecció Tecnoscopi

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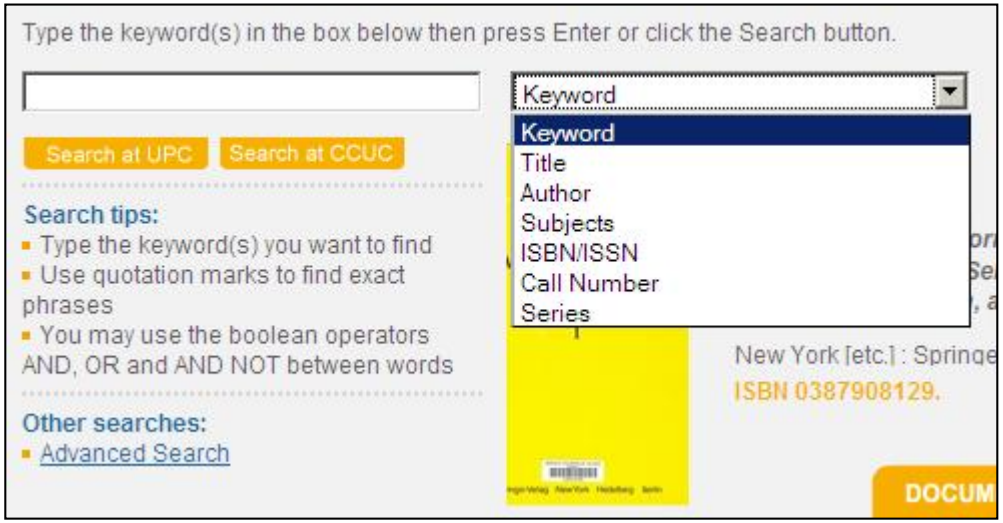
Catalogue



Search by…

Title: Title of the work – avoiding the article - (The Third man → Third man)

Subject: In Catalan. Identify the accepted form in the catalog

Author: Surname

Keyword: Search the written words from any field in the record

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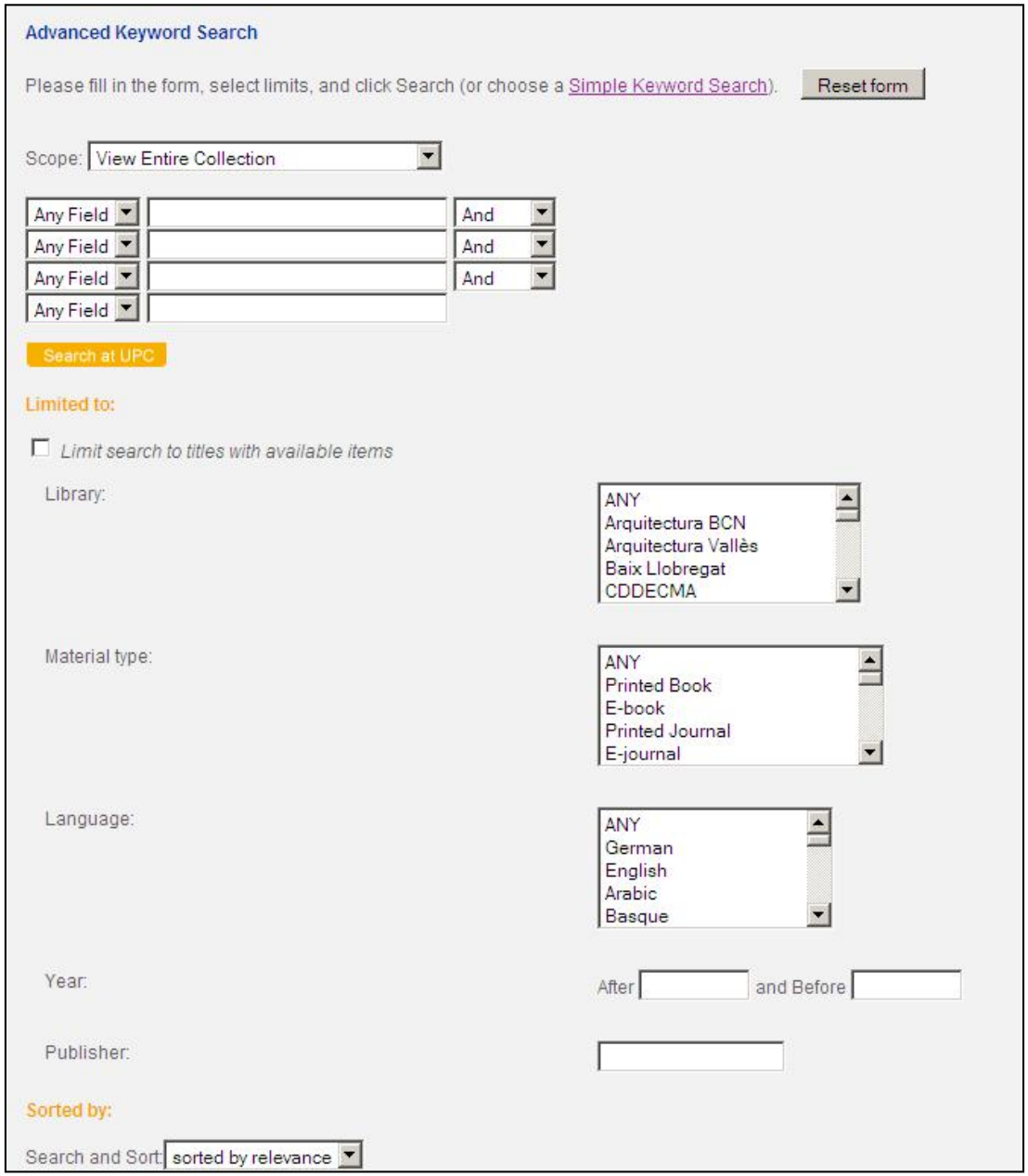
Set Search Limits

Catalogue



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Catalan Universities Consortium

http://ccuc.cbuc.cat/

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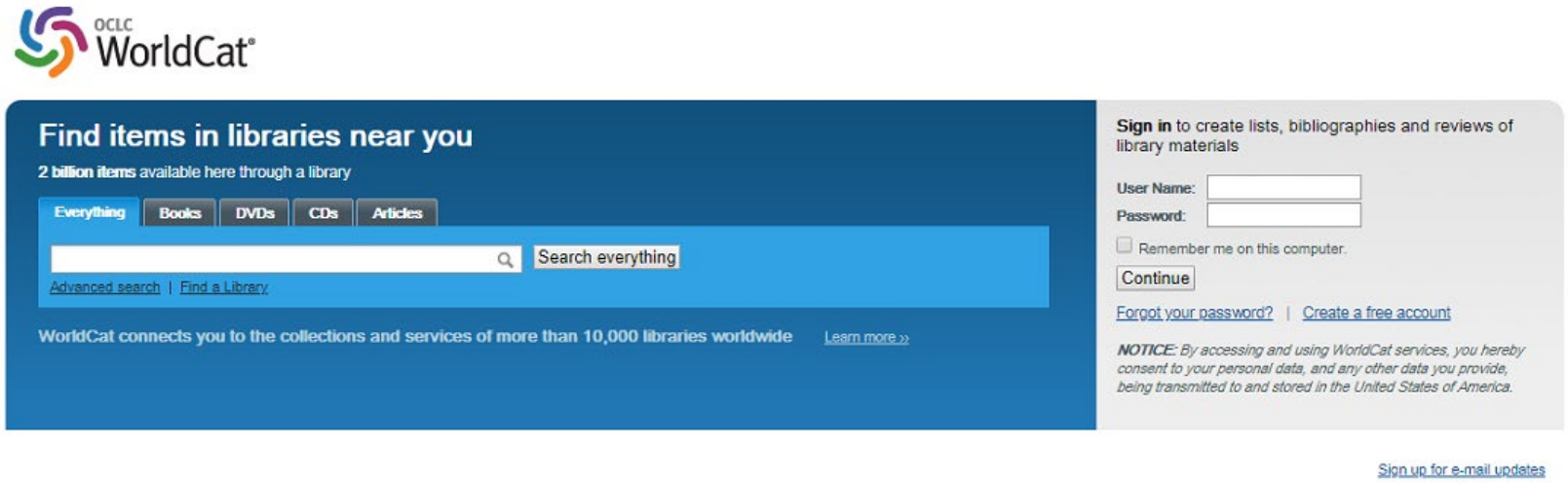
Not so local, not so simple: WorldCat



http://www.worldcat.org

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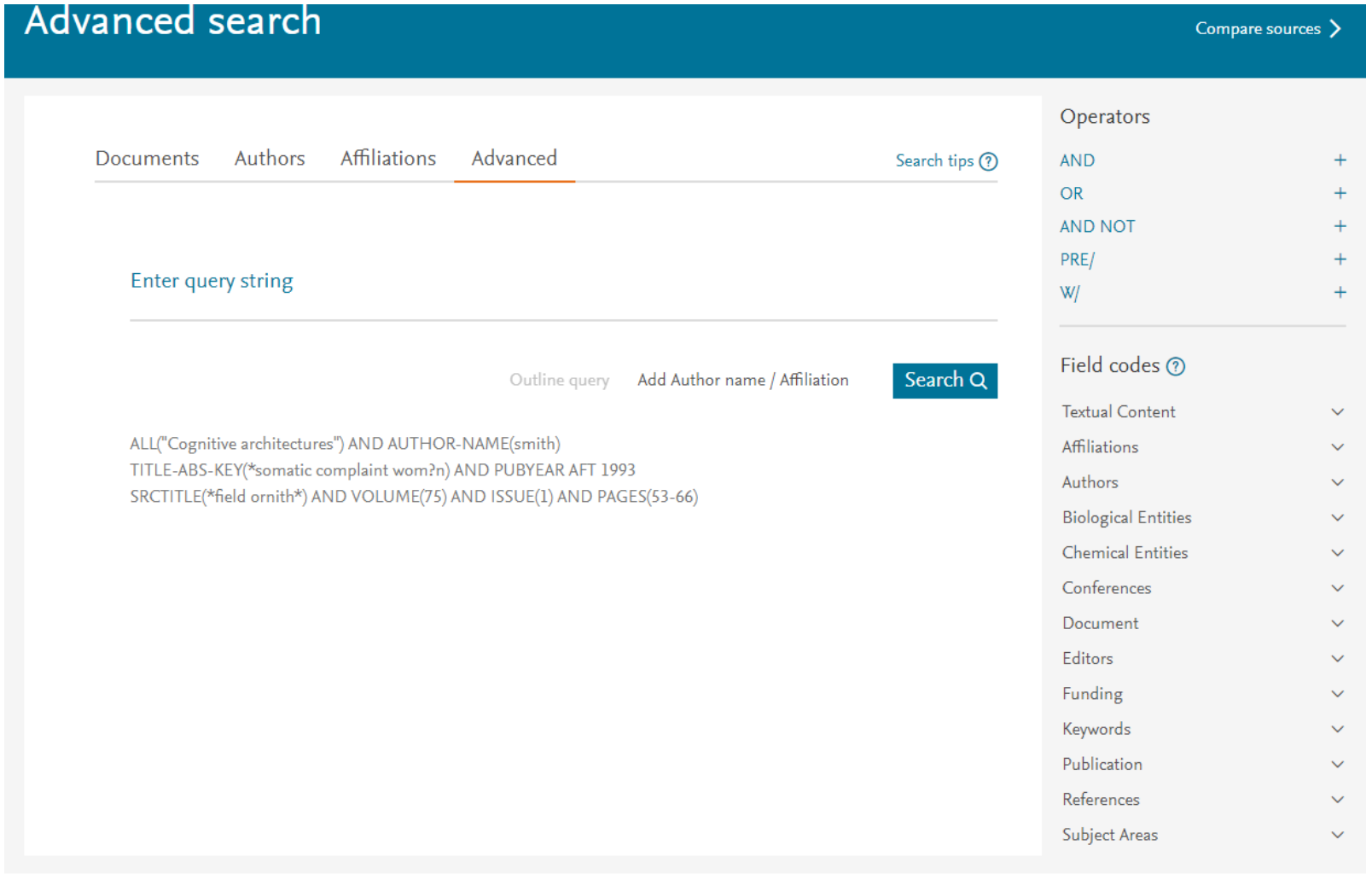
Databases:
Complex search = Relevant results



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Search engines: an algorithm is doing the work

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

Home | Quick | Advanced | Pat Num | Help

Bottom

View Cart | Add to Cart

Images

(1 of 1)

United States Patent **6,285,999**
Page **September 4, 2001**

**Please see images for: (Certificate of Correction) **

Method for node ranking in a linked database

Abstract

A method assigns importance ranks to nodes in a linked database, such as any database of documents containing citations, the world wide web or any other hypermedia database. The rank assigned to a document is calculated from the ranks of documents citing it. In addition, the rank of a document is calculated from a constant representing the probability that a browser through the database will randomly jump to the document. The method is particularly useful in enhancing the performance of search engine results for hypermedia databases, such as the world wide web, whose documents have a large variation in quality.

Inventors: **Page; Lawrence** (Stanford, CA)
Assignee: **The Board of Trustees of the Leland Stanford Junior University** (Stanford, CA)
Family ID: **26673538**
Appl. No.: **09/004,827**
Filed: **January 9, 1998**

Current U.S. Class: **1/1**; 707/999.005; 707/999.007; 707/E17.097; 707/E17.108; 715/206; 715/207; 715/230; 715/256
Current CPC Class: G06F 17/30728 (20130101); G06F 17/30864 (20130101); Y10S 707/99935 (20130101); Y10S 707/99937 (20130101)
Current International Class: G06F 17/30 (20060101); G06F 017/30 ()
Field of Search: ;707/100,5,7,513,1-3,10,104,501 ;345/440 ;382/226,229,230,231

References Cited [Referenced By]

U.S. Patent Documents

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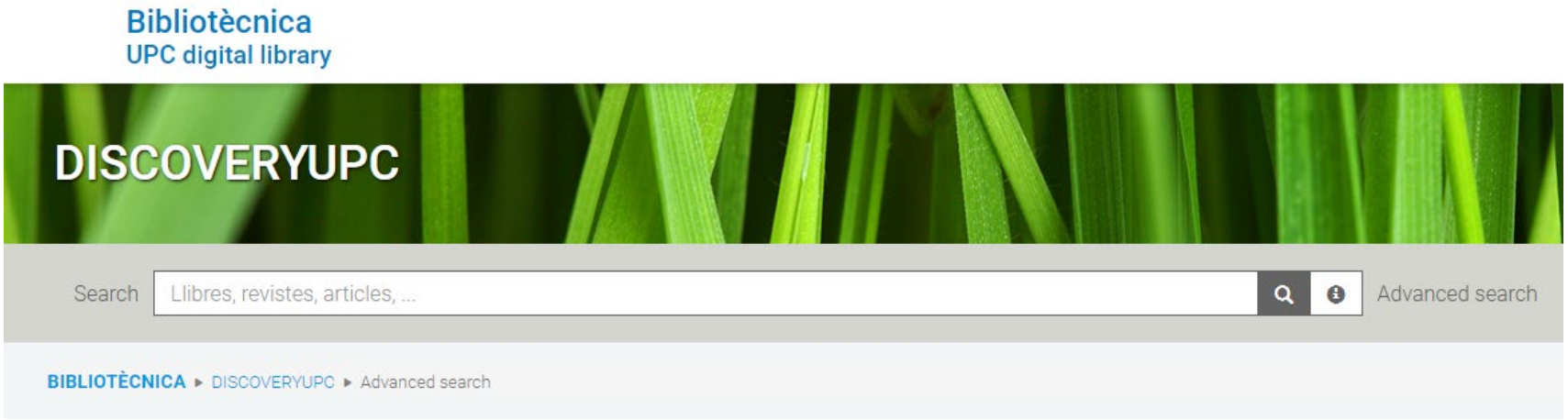
Metasearch: catalog + databases + other e-resources



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Searching Internet

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Internet Resources

Search engines

Crawler

Indexing

Analysis

Storage

Searching

Algorithms

Retrieving

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Internet Resources

Biases

Commercial

Political

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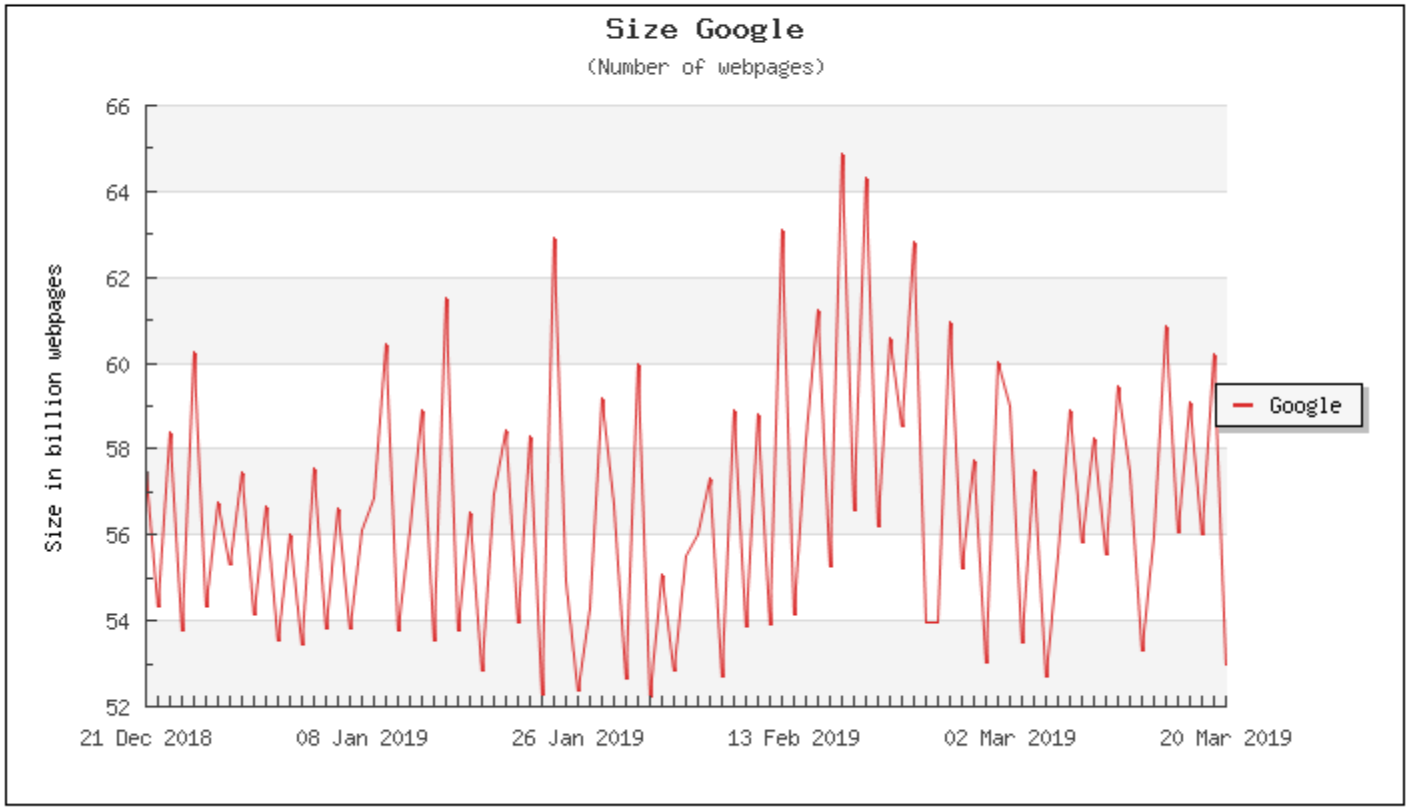
Internet Resources

Google

The size of the World Wide Web:
Estimated size of Google's index

Last Month | Last Three Months | Last Year | Last Two Years | Last Five Years



Source: Maurice de Kunder
http://www.worldwidewebsize.com/

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Tilburg University

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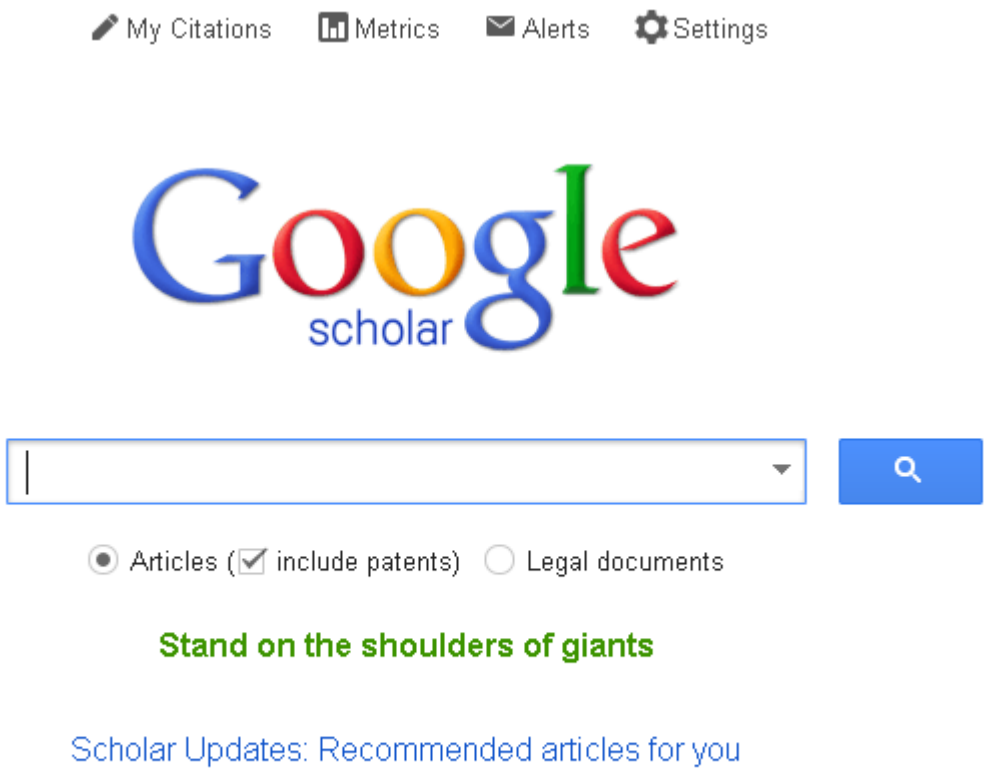
Internet Resources: Google Scholar

Google Scholar → http://scholar.google.com



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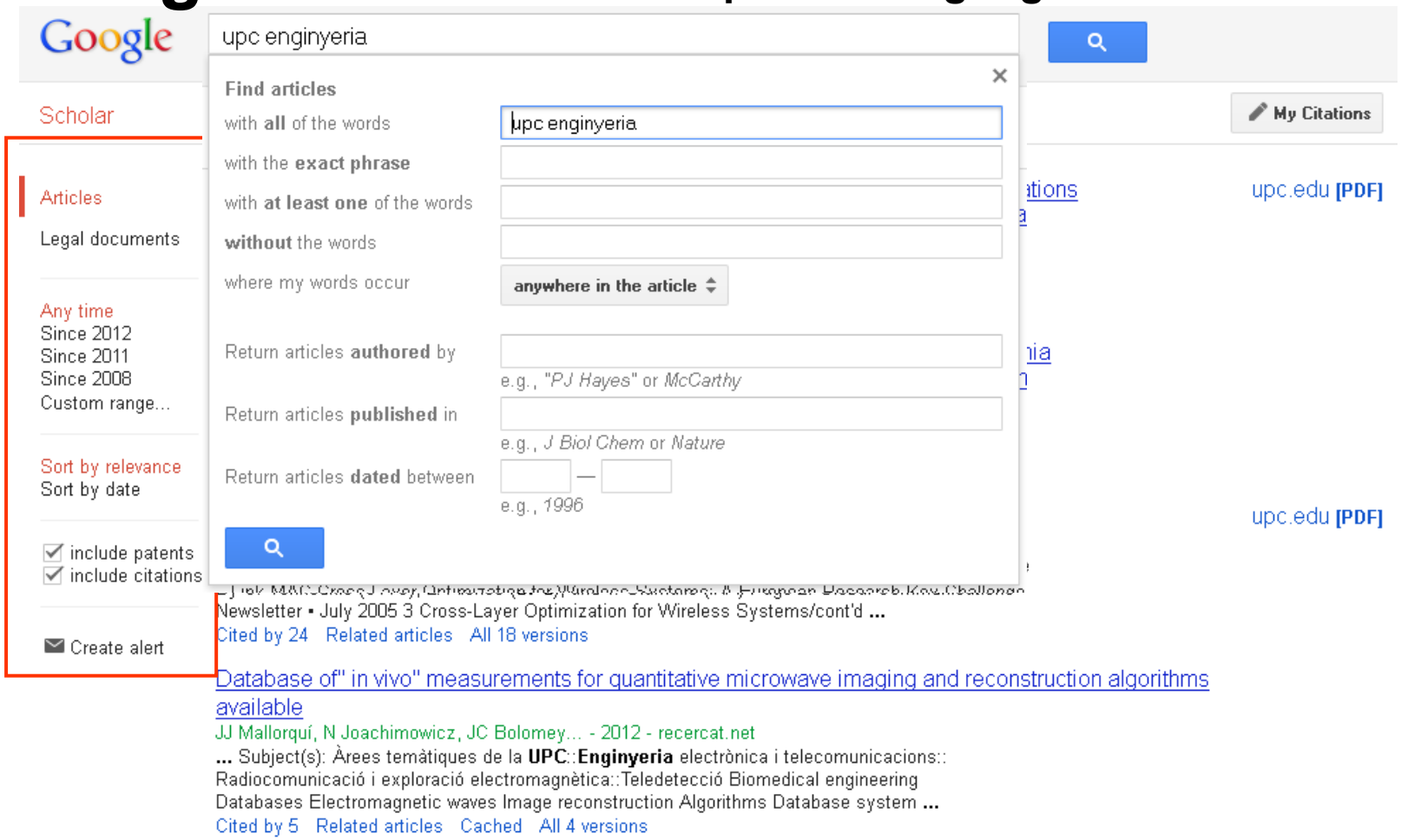
Internet Resources: Google Scholar

Google Scholar → http://scholar.google.es



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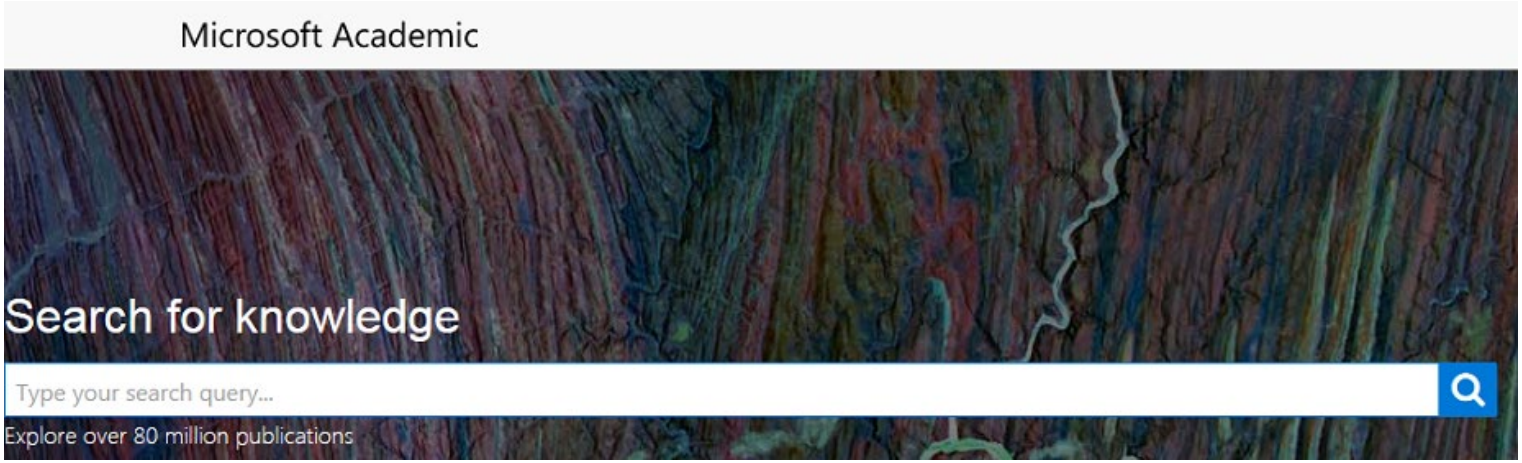
Internet Resources: Microsoft Academic

Microsoft Academic Search→

https://academic.microsoft.com/



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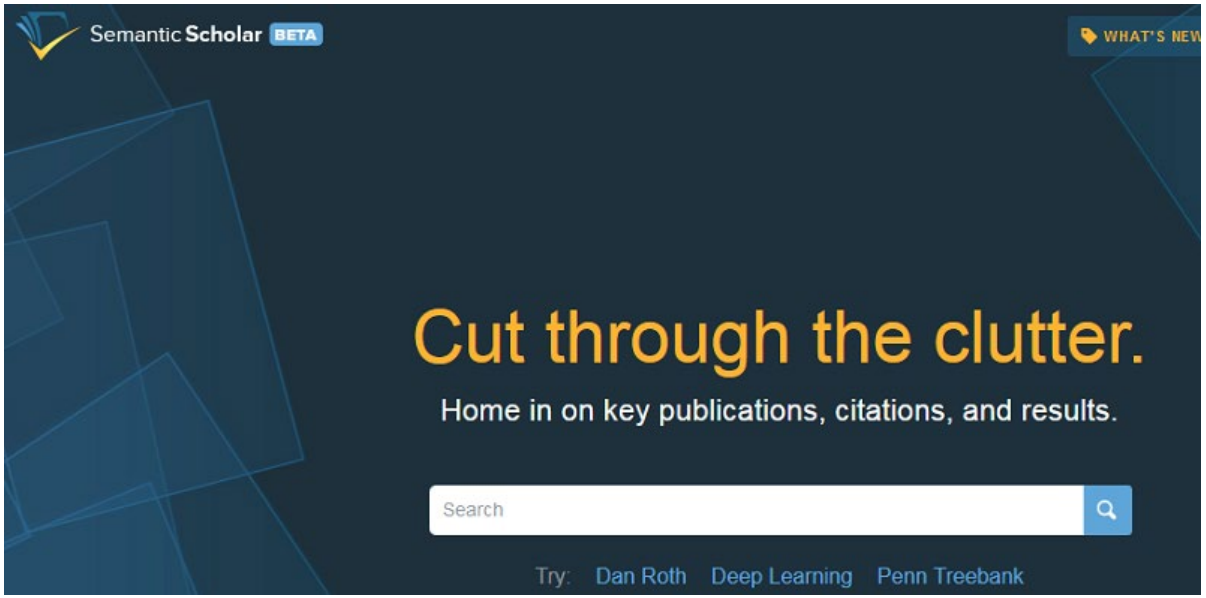
Internet Resources: Semantic Scholar

Semantic Scholar→

https://www.semanticscholar.org/



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Internet Resources: Baidu Scholar

网页 新闻 贴吧 知道 音乐 图片 视频 地图 文库 | 百度首页 登录 注册 设置

Bai du 学术

百度一下

CNKI 中国知网 www.cnki.net | 万方数据 WANFANG DATA | VIP 维普资讯 | SpringerLink | ScienceDirect | Wiley Online Library

WEB OF SCIENCE™ | Engineering Village | +

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Search Strategy

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Search Strategy

1a.Define your search topic in a sentence

"Applying artificial intelligence to computer games"

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Search Strategy

2a. Select information sources

- Library catalogs: *UPC, CCUC…*
- Bibliographic databases: Inspec, WoS, etc
- Internet: *Scholar Google, etc.*

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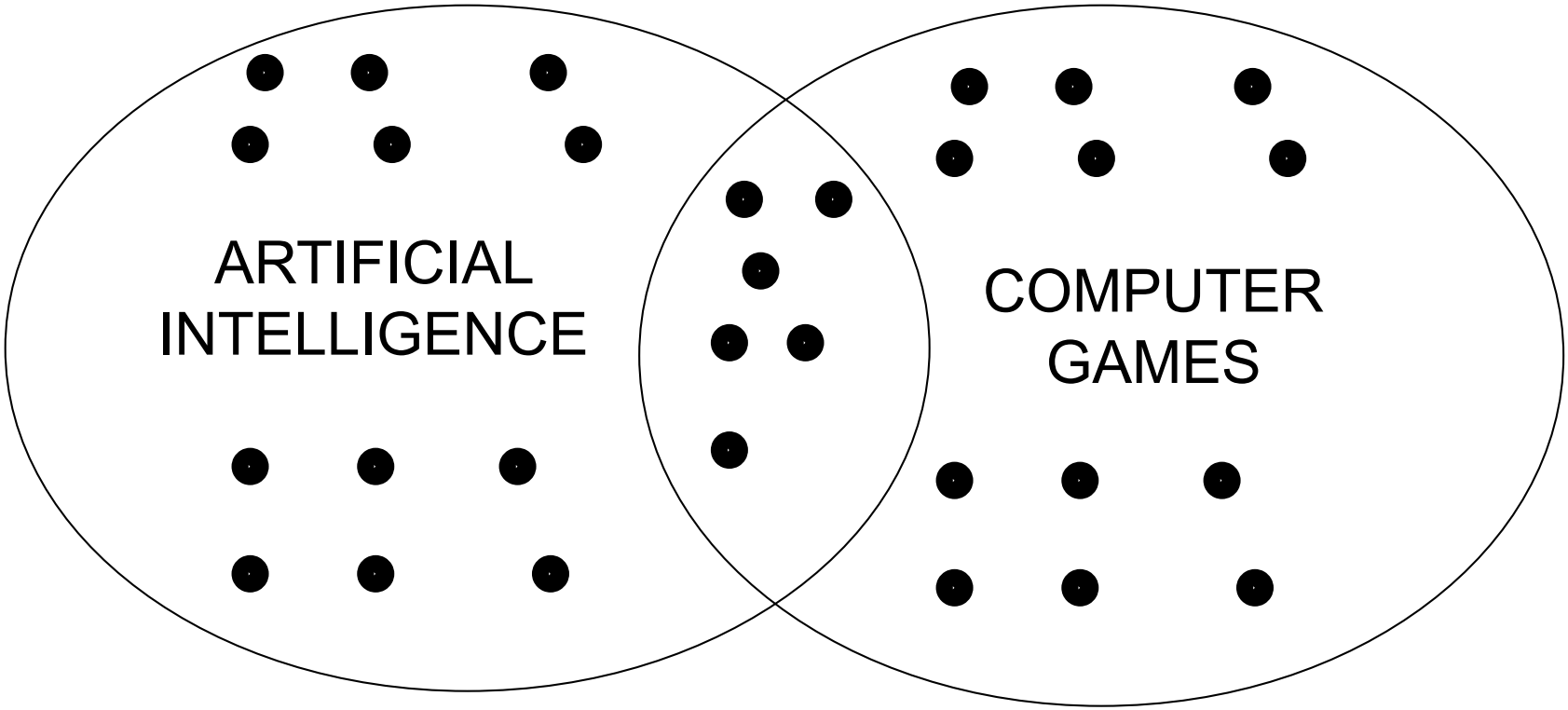
Search Strategy

3a. Identify major concepts and its Boolean relationship



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Search Strategy

4a. Identify keywords and synonyms

Game console *Game consoles*	*Videogame* *Videogames*	*Computer game* *Computer games*	*Artificial intelligence* *AI*

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Search Strategy

5a. Study the query language of the resources

- **Operators, Search fields, Thesauri , etc**

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Search Strategy

6a. Write a search statement according to it

((computer* AND game*) OR videogame* OR console*) AND (“artificial intelligence” OR ai)

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Search Strategy

- Step 2: Execute the search
- Step 3: Evaluate your results
- Step 4: Check the terminology and restart if needed

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Evaluation of information

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Search Strategy

Evaluate your search results

- Too many articles? (Noise)

○ Use more specific terms or phrases to narrow the search to exactly what you need

○ Limit your search to restrict retrieval to entries that meet specific requirements

-Too few articles? (Silence)

○Check the spelling

○Use some more general search terms or

○ Add more synonyms (with OR). Use the thesaurus if possible or look in other interesting records and search using their subjects.

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Evaluation of information

- URL domain: .com, .edu, .info, etc.?
- Website creation data (© copyright), an latest update?
- Who???: personal website?? Institutional website?
- Information about author? (CV, activities, other publications)

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Evaluation of information

- Authorship intention (“about us”)?: inform, criticize, sell...?
- The data offered are easily verifiable?
- Data offered are from an acknowledged source?
- Are there some links to interesting or related websites?
- The website is cited or linked from other websites?

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Ethical use of information.

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Ethical use of information. Plagiarism

•Plagiarism is defined as "a piece of writing that has been copied from someone else and is presented as being your own work" or "taking someone's words or ideas as if they were your own"

•Plagiarism is a serious issue in the academic community.

•Plagiarism occurs when you use someone else's ideas and PRETEND they are your own.

•You CAN use other peoples' ideas and even their words. **BUT YOU HAVE TO ACKNOWLEDGE THE AUTHOR!**

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Ethical use of information. Why to cite?

•Citations reflect the **careful and thorough work** you have put into locating and exploring your sources.

•Citations **help readers understand the context of your argument** and are a courtesy to the reader, who may share your interest in a particular area of study.

•Citations allow you to **acknowledge** those authors who contributed to your learning and your work.

•Citations, by illustrating your own learning process, also **draw attention to the originality and legitimacy of your own ideas**.

•By citing sources you demonstrate **your integrity and skill** as a responsible student and participant in your field of study.

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Ethical use of information. When to cite?

•**Direct quotes** of more than one word. If the author's words are powerful or you need to be specific for your argument, the authors' words can be used as a direct quote.

•**Paraphrasing or summarizing**. If you want to use someone else's idea to help you make your point or to support your own ideas, in this case you would "translate" the ideas into your own words.

•Information which may be **common knowledge but still unfamiliar to your reader**. This would also include statistical information which may be familiar information but still requires confirmation.
•**Not just books or articles should be cited**. Any source that you use for information can and should be cited including interviews, websites, TV programs, diagrams, etc.
•**Whenever you are not sure** if something should be cited, err on the side of caution and **cite** sources.

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Ethical use of information. How to cite?

1) How you will reference your sources within your paper?

Generally you will use one of the following options:

•IN TEXT citation. Your source author is included within the body of your paper. This acts as a reference to your 'Works Cited' page.

•END NOTES. The cited idea or quote is noted with a number and the source is listed at the end of the paper.

•FOOT NOTES format is similar to end notes. However, the citations are listed at the bottom of each page.

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Ethical use of information. How to cite?

2) Which format and style guide to use?

There are very specific rules about how to do this. Usually, it depends on the subject area, the journal you want to publish in or the personal preferences of a professor in case of academic works.

The choices will typically be one of the following:

- ISO 690
- CHICAGO (Computer science)
- AIP (Physics)
- MLA (Linguistics)
- APA (Psychology and other social sciences)

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