Use of Scopus and WoS in literature reviews for doctoral theses

Procedures and functions

Lluís Codina, Elisenda Aguilera
#UPFCommResearch
Department of Communication
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Credits

- **Title**: *Use of Scopus and WoS in literature reviews for doctoral theses: procedures and functions*
- **Author**: Lluís Codina, Cristina Aguilera
- **Context**: Research week – Doctoral programme. Department of Communication. UPF.
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Abstract and keywords

- **Abstract** Fundamentals of the use of literature reviews in doctoral theses. Use of the Scopus and Web of Science databases for literature reviews and scoping reviews. Use with Mendeley. Advanced search functions. Boolean operators. Parametric search. Use of the results page. Using the record for information discovery functions.
- **Keywords** Literature reviews, scoping reviews, academic databases, Scopus, Web of Science, Mendeley, PhD. Theses

Foundations: social responsibility of researchers

- Researchers have an ethical responsibility: their research must be useful academically or socially or, preferably, **both**.
- It is impossible to do research that responds to social responsibility ignoring the **preceding** science.
- In fact, one way to identify pseudo science is that it is often presented as a way to break with all previous science.

Science is a cumulative process

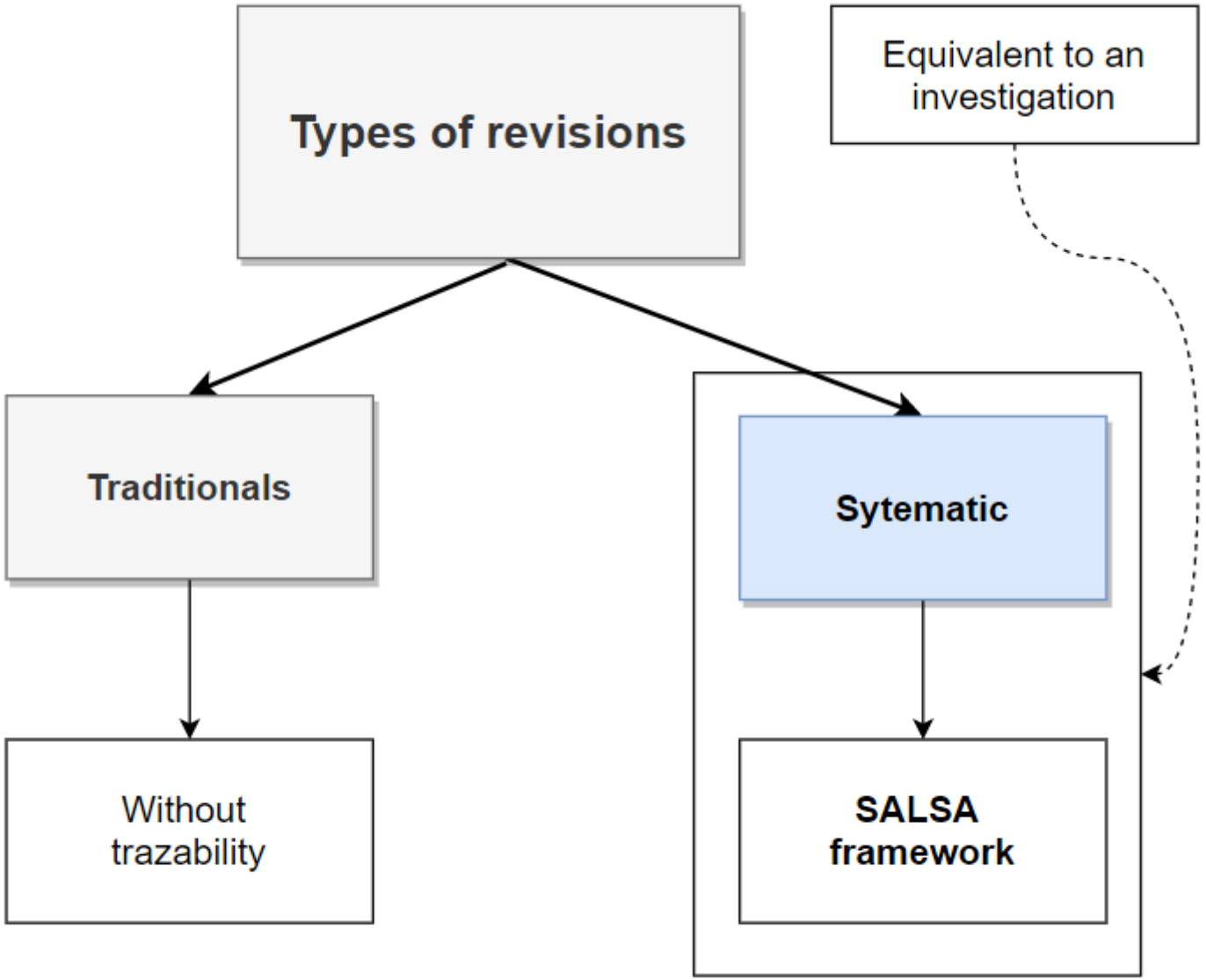
- Investigators should be aware of past research to:
  - identify the best available evidence in the field;
  - detect research opportunities and gaps;
  - make the best economy of scale that is possible: that which is based on accumulated prior knowledge;
  - make the best decisions about its research design.
- Also, to avoid:
  - useless or redundant investigations;
  - outdated or discredited theories;
  - pseudoscience that goes against the scientific knowledge or expressly ignores it.

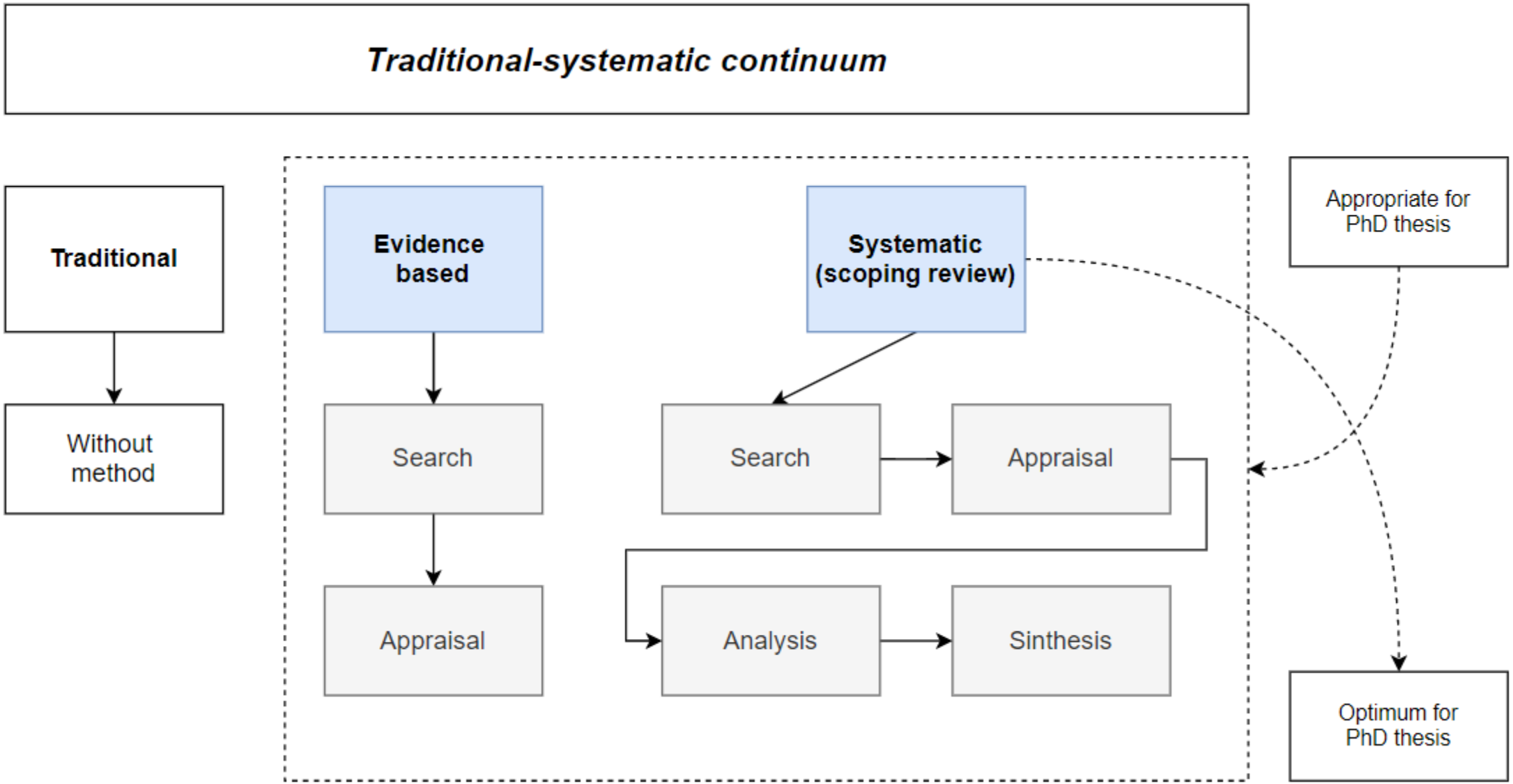
Main literature reviews functions

- Scientific:
  - To know the main characteristics of the field where the doctoral thesis will be developed: main theories and concepts, most used methods, main authors, main sources, etc.
  - To develop the theoretical and methodological framework that will frame the research.
  - Identify trends and research opportunities.
- Cognitive
  - Acquire skills necessary to interpret and synthesize scientific research.
- Pragmatic
  - Identify successful investigations that provide examples and models for doctoral thesis research.
  - Demonstrate to the evaluators that you have a solid knowledge of the research field.

Typology of reviews

- Traditional
  - Can be works of a high quality, but they cannot be presented as research results as they do not provide traceability.
- Systematized
  - Include traceable procedures for the following phases:
    - **S**earch
    - **A**ppraisa**L**
    - **S**ynthesis
    - **A**nalysis


Types of revisions
Equivalent to an investigation
Traditionals
Sytematic
Without trazability
SALSA framework


Traditional-systematic continuum
Traditional
Without method
Evidence based
Search
Appraisal
Systematic (scoping review)
Search
Appraisal
Analysis
Sinthesis
Appropriate for PhD thesis
Optimum for PhD thesis

The intermediate zone in the traditional-systematic *continuum*

- At one extreme: traditional reviews, with no traceability. At the other extreme: systematic reviews with full traceability.
- In an **intermediate zone** we have **evidence-based literature reviews** with academic databases utilization.
- Advantages and disadvantages:
  - More easier to carry out that a systematic review
  - Provides a solid base for the development of theoretical or conceptual frameworks
  - They cannot be used as investigations in themselves, but they provide a lot of security to the doctoral student
- General advice on doctoral theses
  - Use, at least, one **evidence-based literature reviews** with solid search and evaluation procedures at an early point in your research.

Document bank = evidence base

- The document bank is the evidence base in a rigorous review:
  - Incorporates the first degree of systematicity to the review
- This document bank is built:
  - First, through searches using internationally recognized information systems, such as academic databases **Scopus**, and **Web of Science**
  - Second, after applying inclusion and exclusion criteria.

In synthesis

- The standard recommendation is to carry out at least one **evidence-based literature review** using databases at some early stage of the doctoral thesis research.
- Solid literature reviews evidence based, provide guarantees to the author of the research or doctoral thesis, but they cannot always be presented as research in itself.
- Systematic reviews that contemplate the four phases can be presented as research in themselves.
  - In the case of doctoral thesis, the most appropriate kind of review are **scoping reviews.**

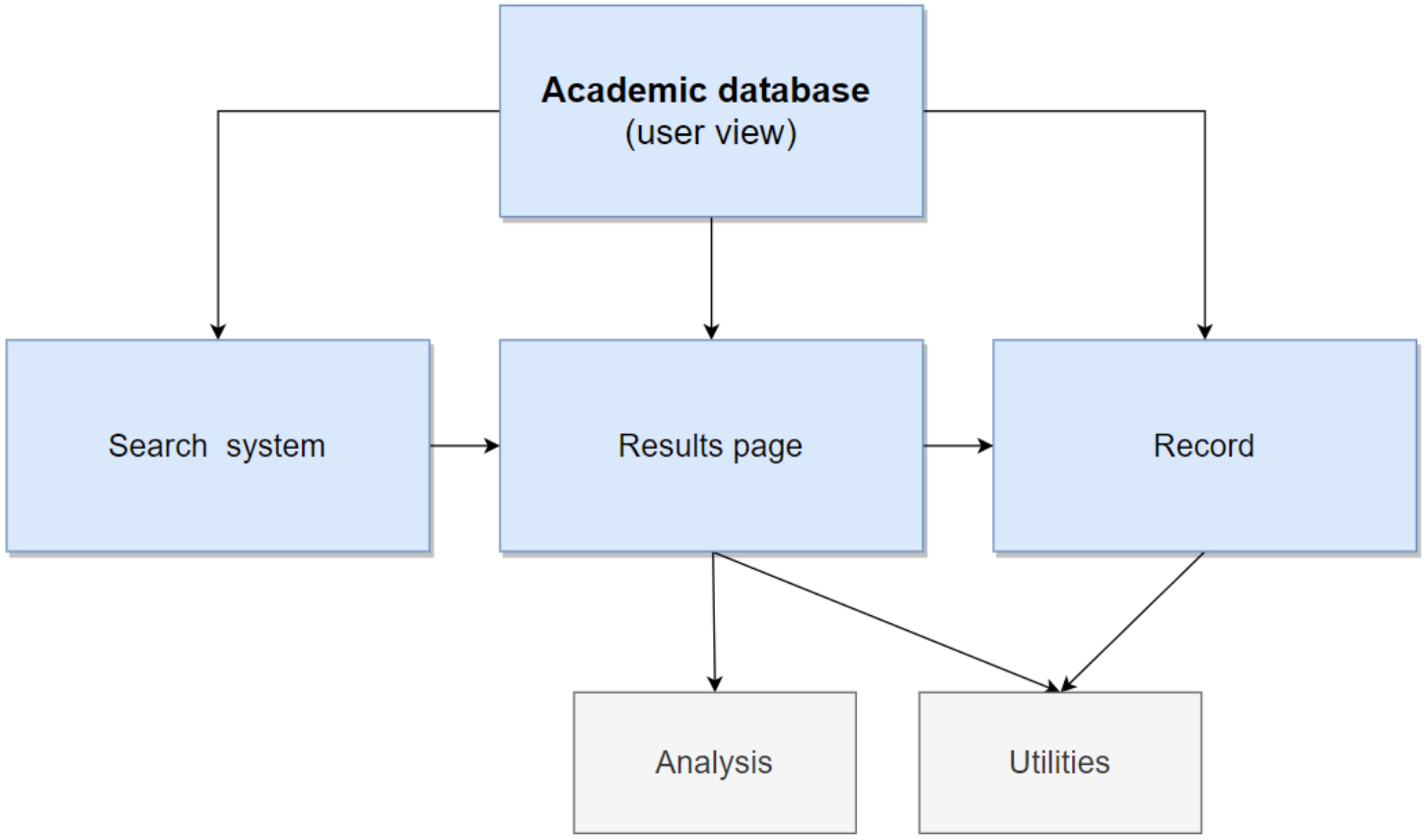
Requirements for using academic databases

- Know how to convert information needs into search equations using assisted systems or search forms

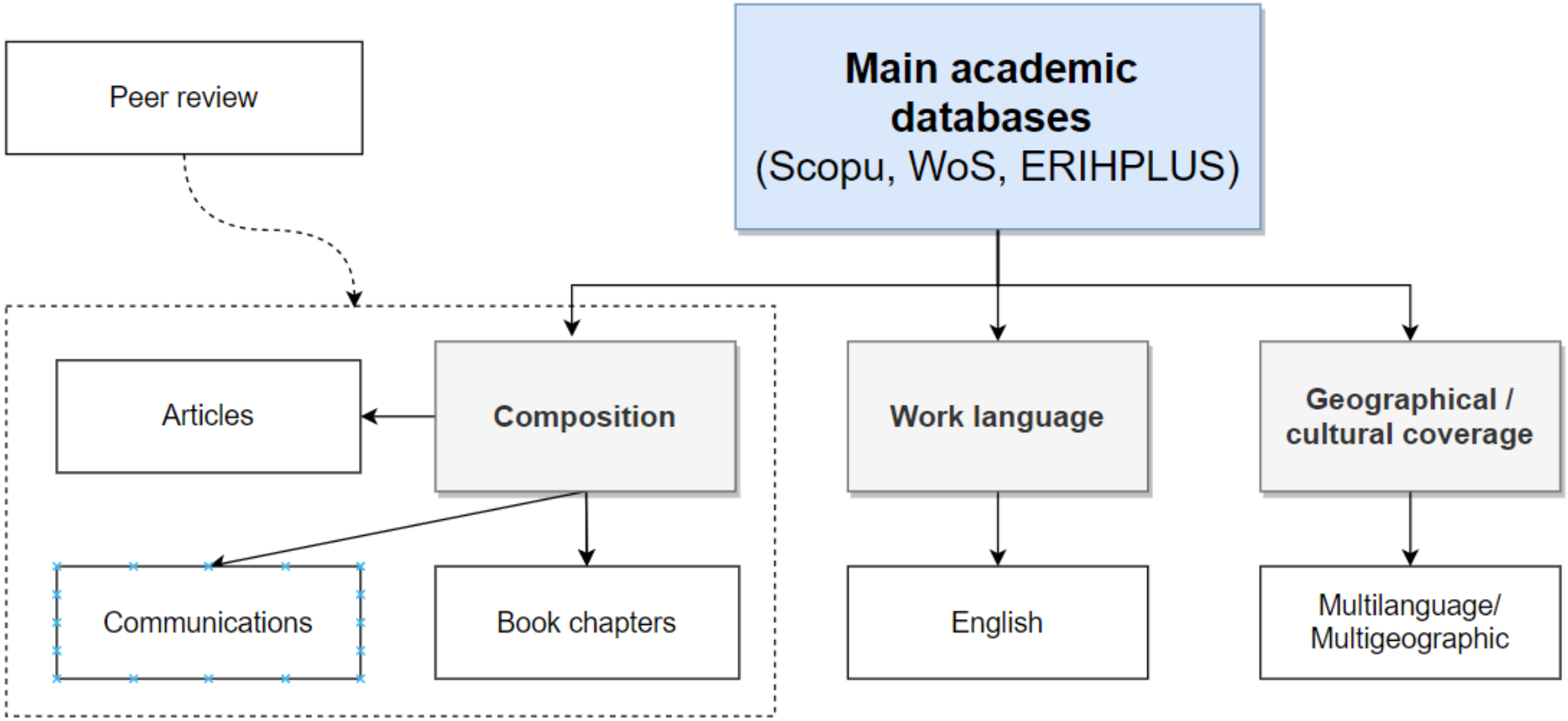
Preparation

- To **carry out the searches** for a literature review, we need:
  - A **research question**, or a **research problem statement**. Alternative: a statement that describes the **topic and objectives** of the investigation.
  - A derived set of **keywords** from the above
  - A combination of the keywords in one or more **search equations**.
- To **manage** the references, we need:
  - **Mendeley** or a similar reference manager (Zotero, e.g.)

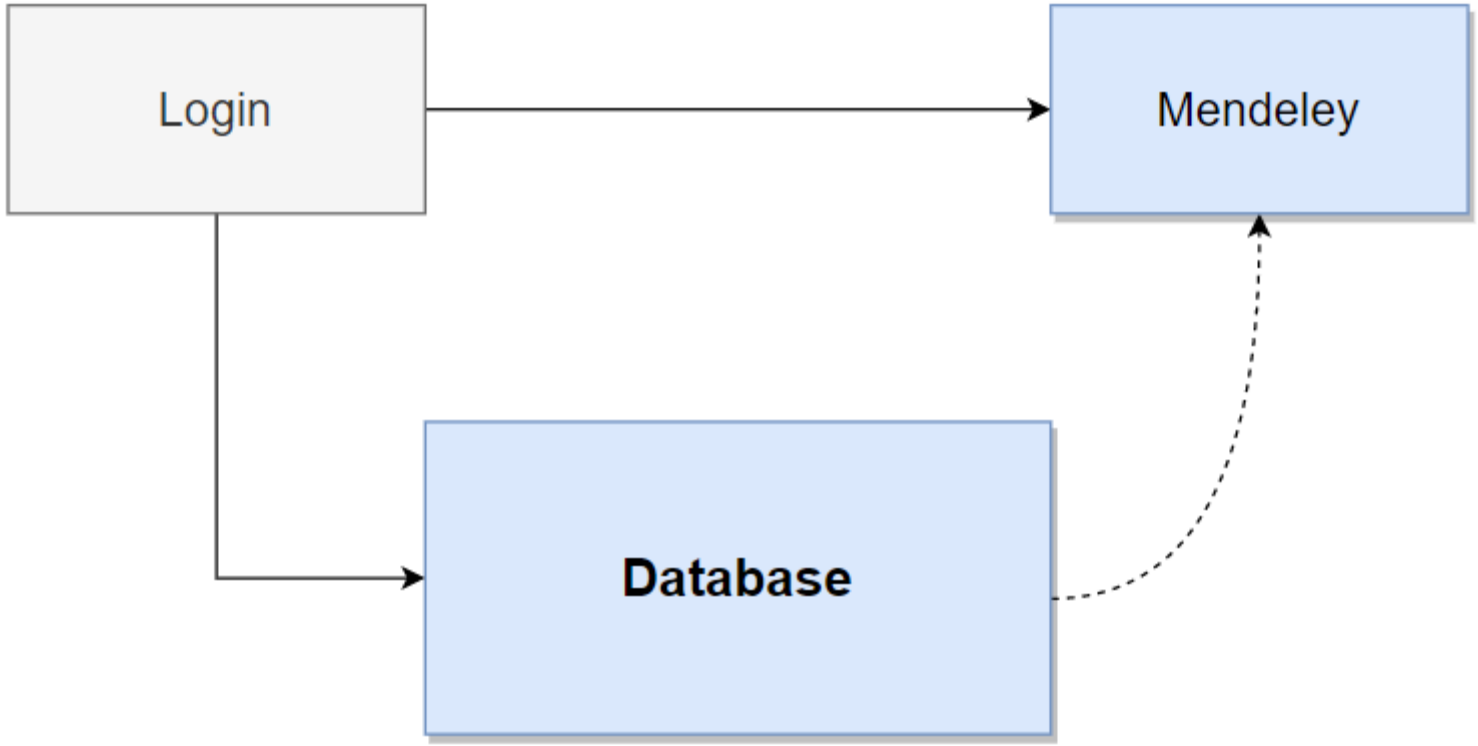
Academic databases: functional components



Academic databases: characterization



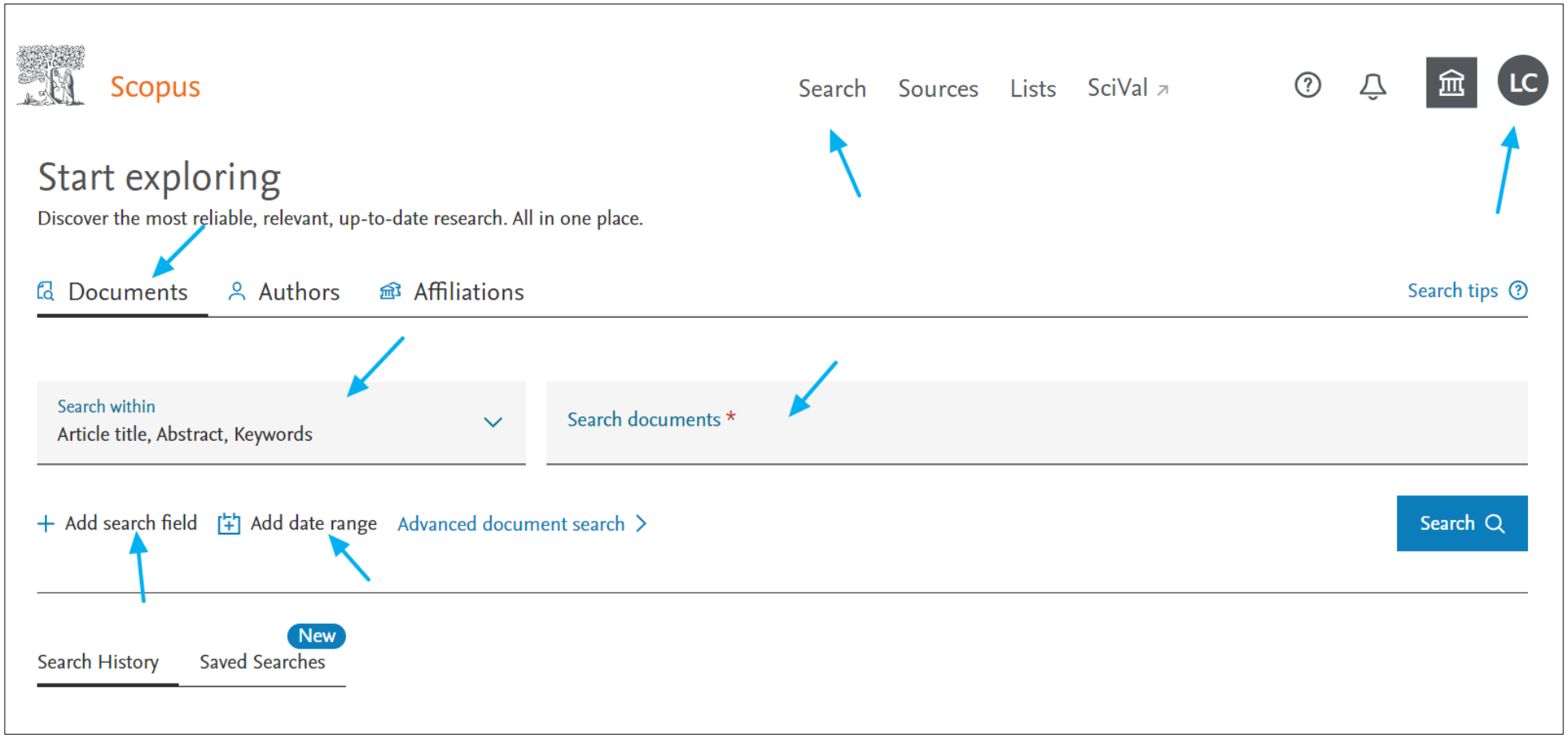
PREPARATION



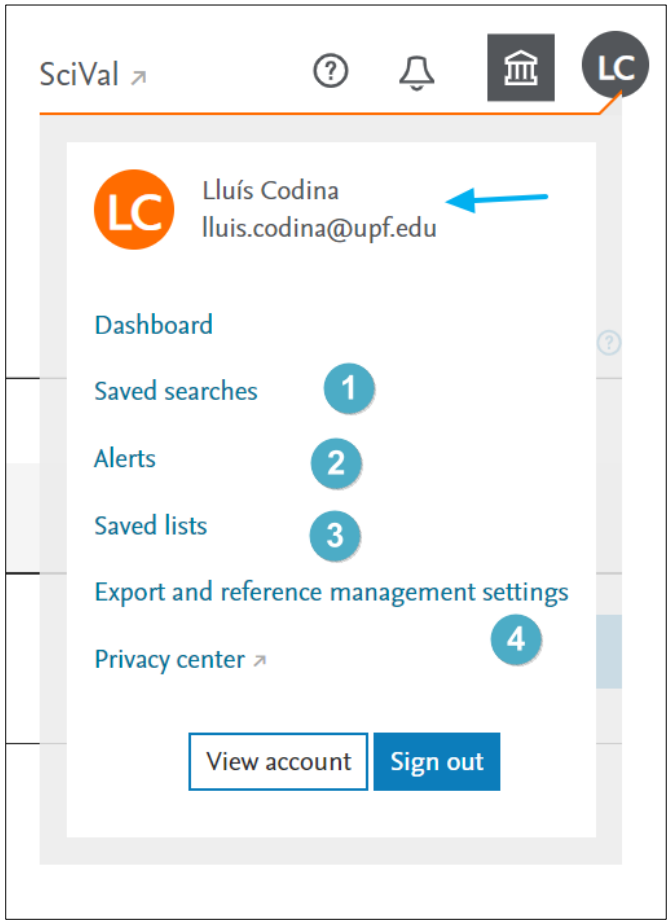
Login

Welcome to
Scopus
The largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings.
Save time, set up a free account:
Save your searches
Save documents to lists
Set up email alerts
Review your author profile
as guest
Login
Create account

Scopus with login



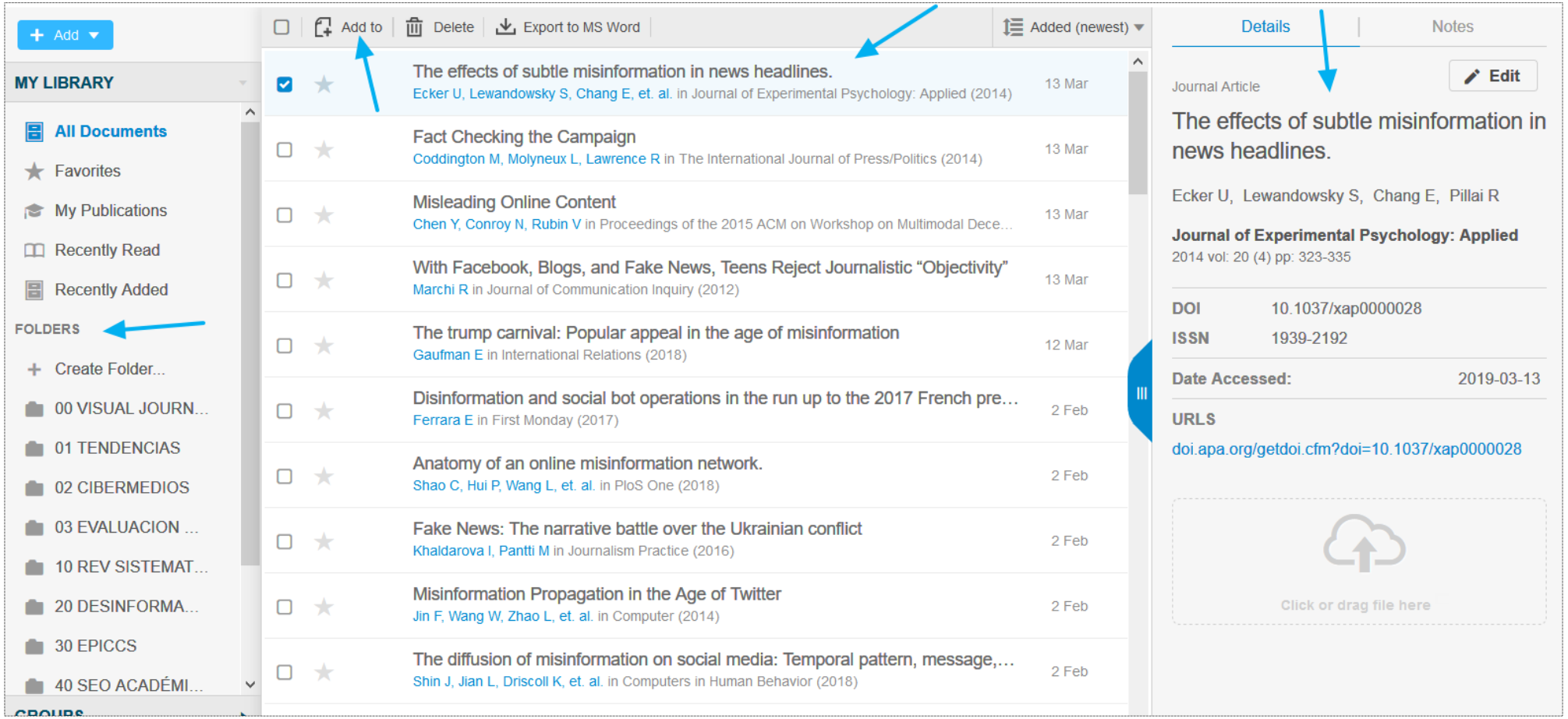
Login functionality



Practice

- Access the UPF databases page
  - Attention: “the screen of death” > delete previous navigation cache
- Register a user profile
- Recommendation: use your UPF mail

Mendeley


Add
MY LIBRARY
All Documents
Favorites
My Publications
Recently Read
Recently Added
FOLDERS
Create Folder...
00 VISUAL JOURN...
01 TENDENCIAS
02 CIBERMEDIOS
03 EVALUACION ...
10 REV SISTEMAT...
20 DESINFORMA...
30 EPICCS
40 SEO ACADÉMI...
Add to
Delete
Export to MS Word
Added (newest)
The effects of subtle misinformation in news headlines.
Ecker U, Lewandowsky S, Chang E, et. al. in Journal of Experimental Psychology: Applied (2014)
13 Mar
Fact Checking the Campaign
Coddington M, Molyneux L, Lawrence R in The International Journal of Press/Politics (2014)
13 Mar
Misleading Online Content
Chen Y, Conroy N, Rubin V in Proceedings of the 2015 ACM on Workshop on Multimodal Dece...
13 Mar
With Facebook, Blogs, and Fake News, Teens Reject Journalistic "Objectivity"
Marchi R in Journal of Communication Inquiry (2012)
13 Mar
The trump carnival: Popular appeal in the age of misinformation
Gaufman E in International Relations (2018)
12 Mar
Disinformation and social bot operations in the run up to the 2017 French pre...
Ferrara E in First Monday (2017)
2 Feb
Anatomy of an online misinformation network.
Shao C, Hui P, Wang L, et. al. in PloS One (2018)
2 Feb
Fake News: The narrative battle over the Ukrainian conflict
Khaldarova I, Pantti M in Journalism Practice (2016)
2 Feb
Misinformation Propagation in the Age of Twitter
Jin F, Wang W, Zhao L, et. al. in Computer (2014)
2 Feb
The diffusion of misinformation on social media: Temporal pattern, message,...
Shin J, Jian L, Driscoll K, et. al. in Computers in Human Behavior (2018)
2 Feb
Details
Notes
Edit
Journal Article
The effects of subtle misinformation in news headlines.
Ecker U, Lewandowsky S, Chang E, Pillai R
Journal of Experimental Psychology: Applied
2014 vol: 20 (4) pp: 323-335
DOI 10.1037/xap0000028
ISSN 1939-2192
Date Accessed: 2019-03-13
URLS
doi.apa.org/getdoi.cfm?doi=10.1037/xap0000028
Click or drag file here

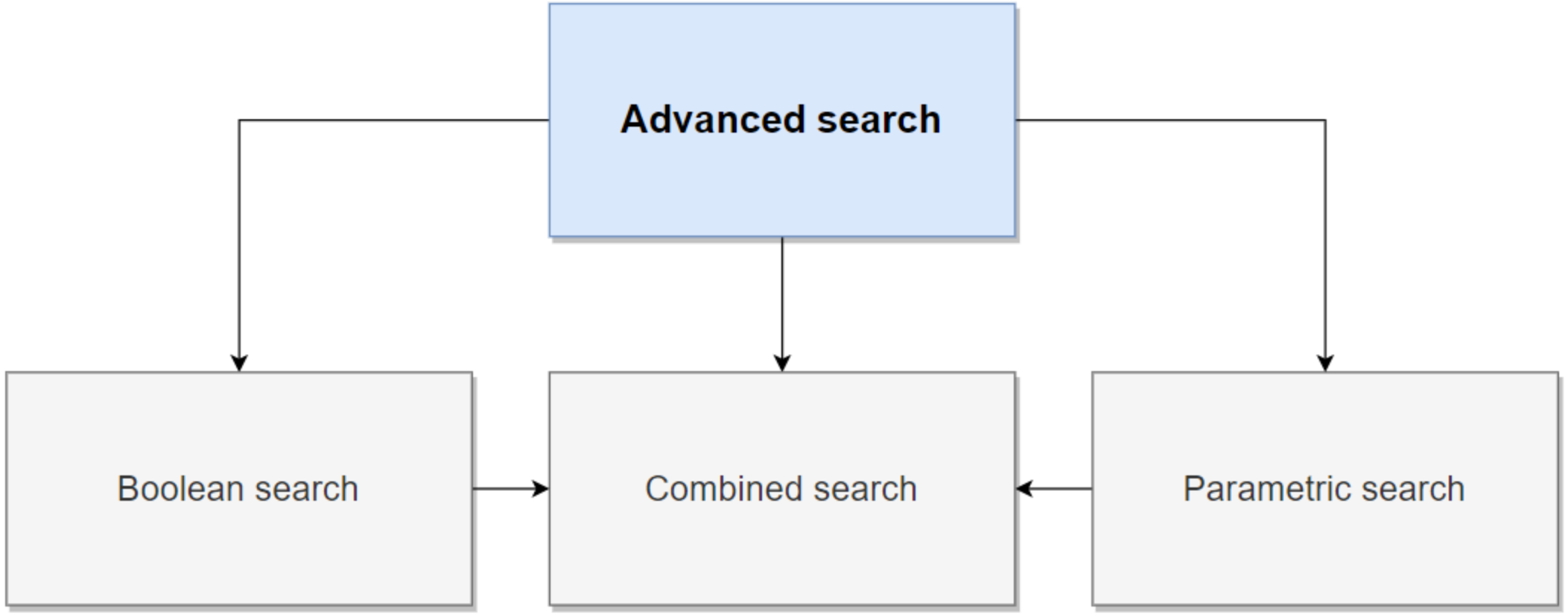
Mendeley – Options

- Desktop version
  - Some exclusive functions (e.g. eliminate duplicates)
- Citation plugin
  - Extension for text editors
  - Allows you to use Mendeley from the text editor (searches and citations)
  - Automatic generation of the bibliography from citations embedded in the text
- Web importer
  - Browser extension
  - Importing references

Practice Mendeley account

- Create a Mendeley account
- From the UPF campus
- Use UPF mail

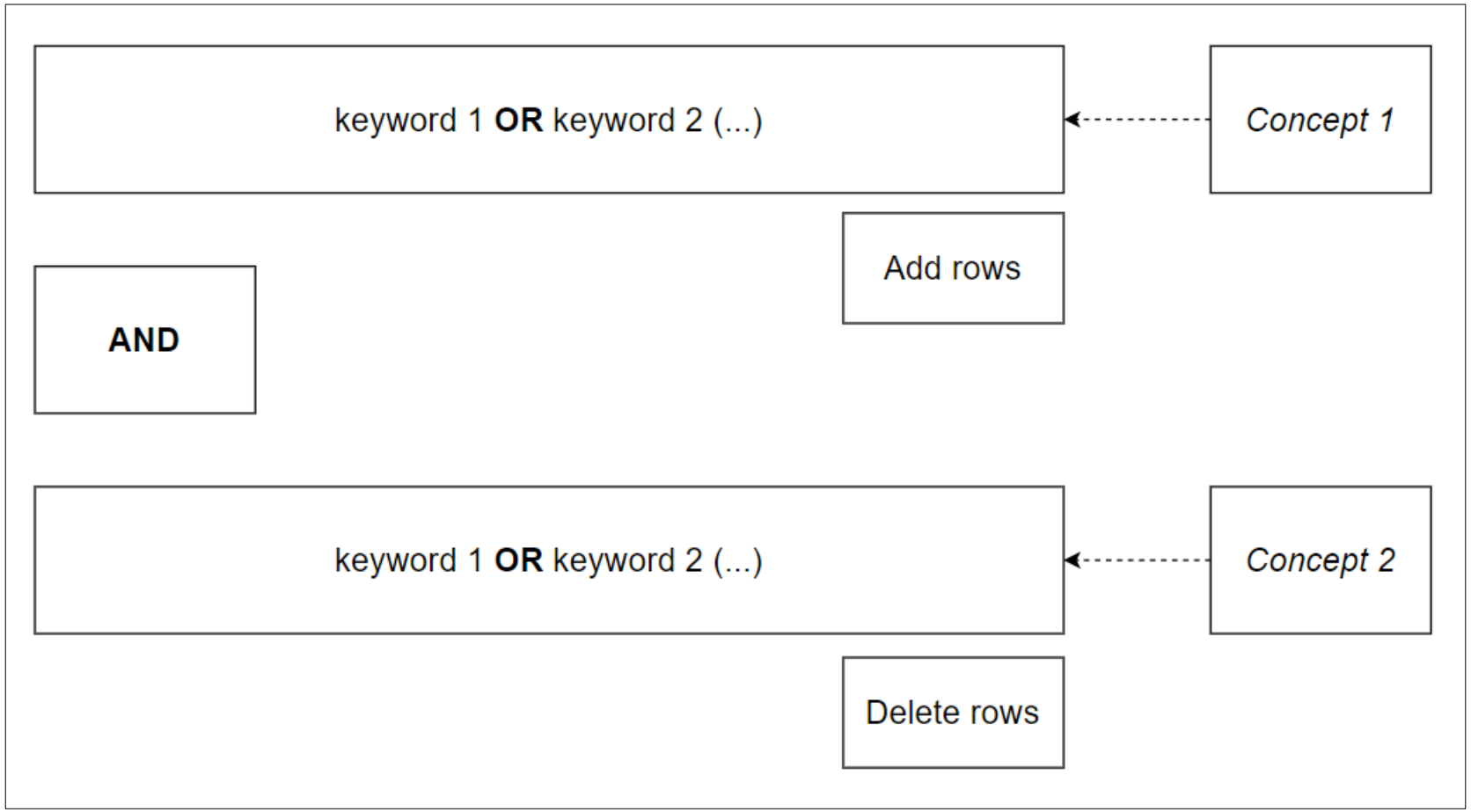
PART 1: ADVANCED SEARCH



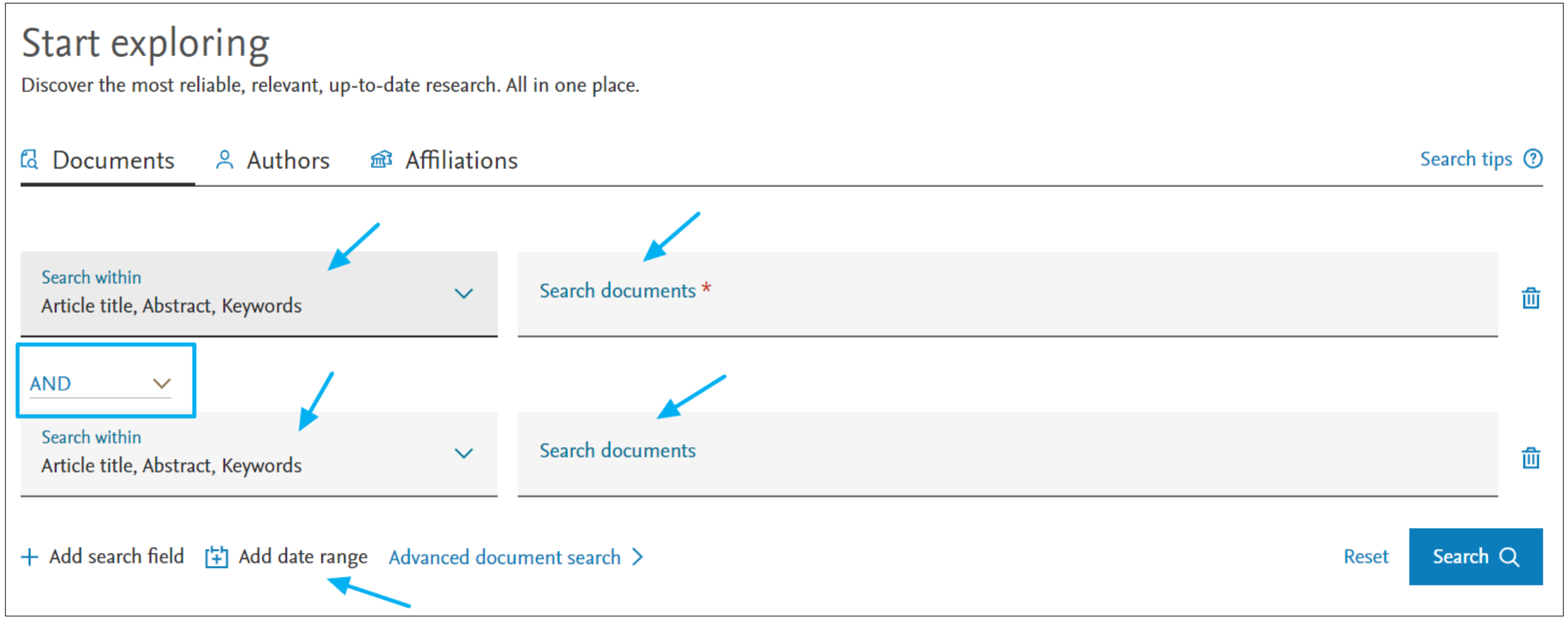
Main types of advanced search

- **Boolean search**: to combine concepts. Example:
  - journalism AND artificial intelligence
- **Parametric search:** to increase precision by restricting results to a specific parameter, such as title. Example:
  - TI=journalism
- **Combined search:** to combine concepts and increase precision. Example:
  - TI=journalism AND TI=artificial intelligence

Form pattern



Advanced Search form in Scopus



Typical use of the form

- Combination of two or more concepts, each of which can be expressed by two or more synonyms.
- Rows: **sum** of two or more synonymous concepts. Examples:
  - Row 1 - Concept 1: fake news, misinformation, misinformation, “fake news”
  - Row 2 - Concept 2: journalism, press, digital media
- **Intersect** the rows with an AND operator
- Resulting format: Boolean equation. Example:
  - ("Fake news" **OR** disinformation **OR** "misinformation" **OR** "fake news") **AND** (journalism **OR** newspapers **OR** “news media")

The same equation

("fake news" OR misinformation OR disinformation)

AND

(journalism OR newspapers)

Horizontal = AND | Vertical = OR

Example

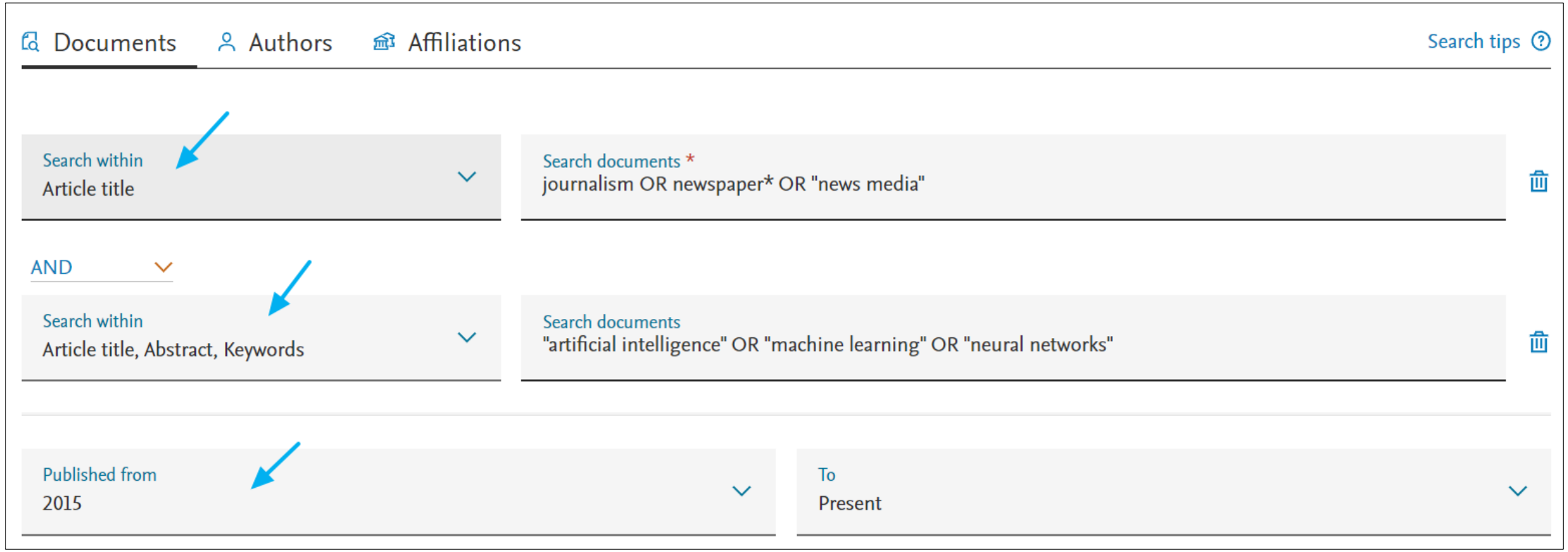
Search
misinformation OR disinformation OR "fake news"
Article title, Abstract, Keywords
E.g., "Cognitive architectures" AND robots
AND
Search
newspapers OR journalism
Article title, Abstract, Keywords
Limit
Date range (inclusive)
Published
2012
to
Present

Save searchs

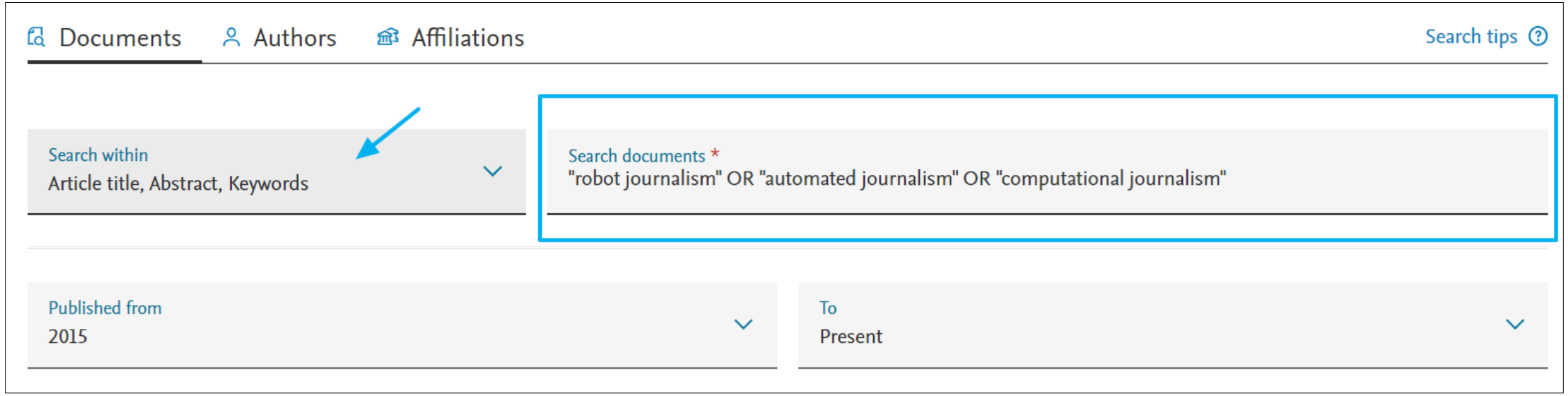
Variation

- The **nuclear** or more important o more significative concept: limited to **Title** field
- The **complementary** o **contextual** concept(s): **Title** + **Abstract** + **Keywords** group fields
- Another important and useful variation: all concepts limited to **Title field**.

Example


Documents
Authors
Affiliations
Search tips
Search within
Article title
Search documents *
journalism OR newspaper* OR "news media"
AND
Search within
Article title, Abstract, Keywords
Search documents
"artificial intelligence" OR "machine learning" OR "neural networks"
Published from
2015
To
Present

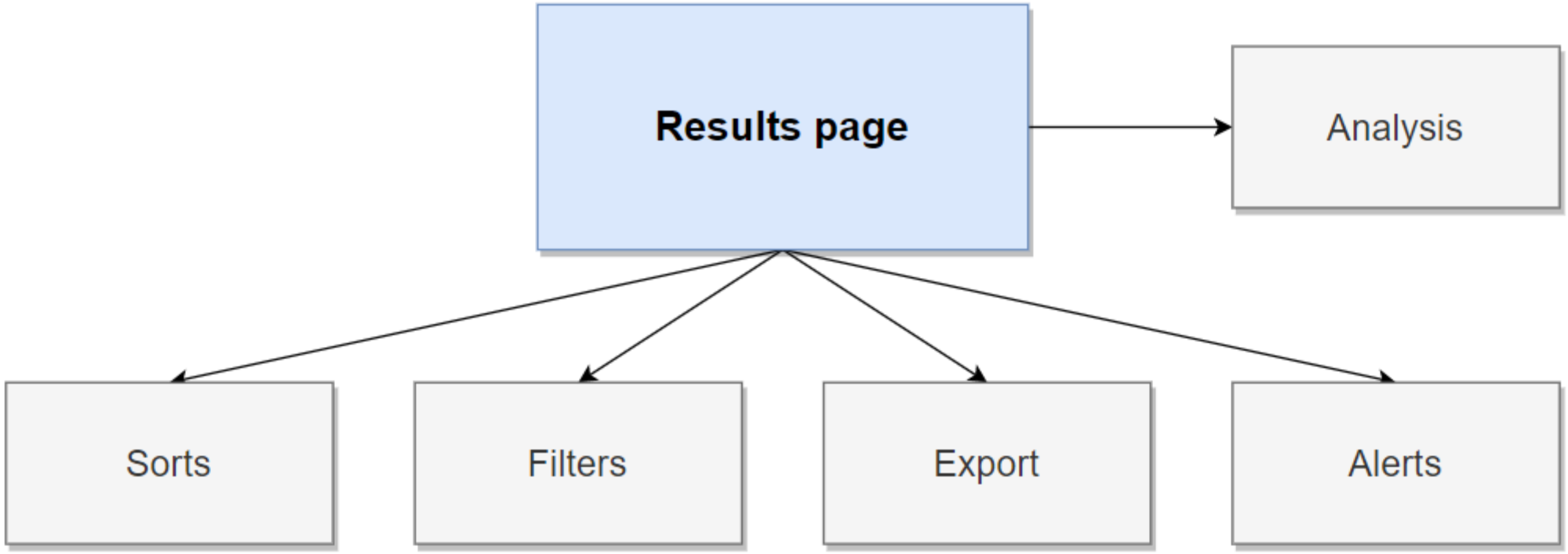
Another example: unique concept



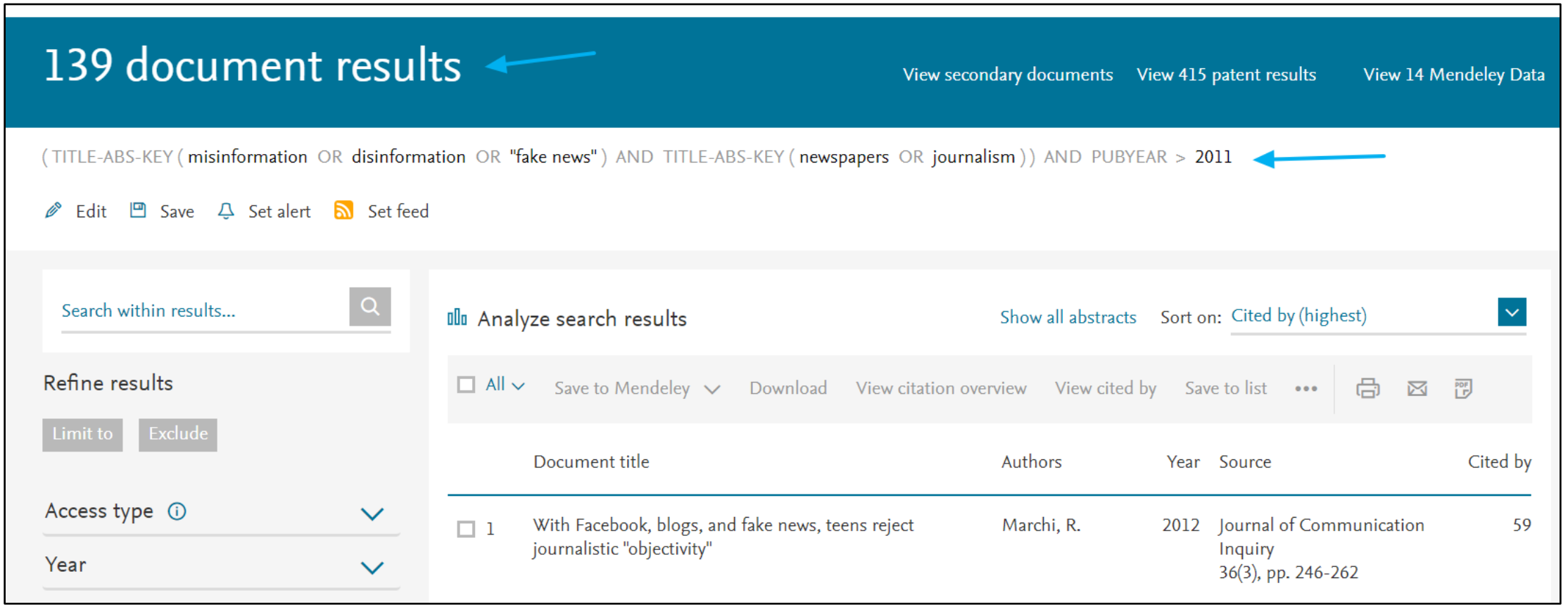
Activity suggestion

- Test the keywords of your research project
- Remember: always in **English**, also if you are looking for documents in languages others than English
- Examine the relevance of the results with the **title** and **abstract**
- Determine the **effectiveness** of your keywords or search equation in finding evidence for your literature review.
- **Test** other keywords if necessary: be inspired by keywords from found documents that have some relation to the topic

PART 2: RESULTS PAGE



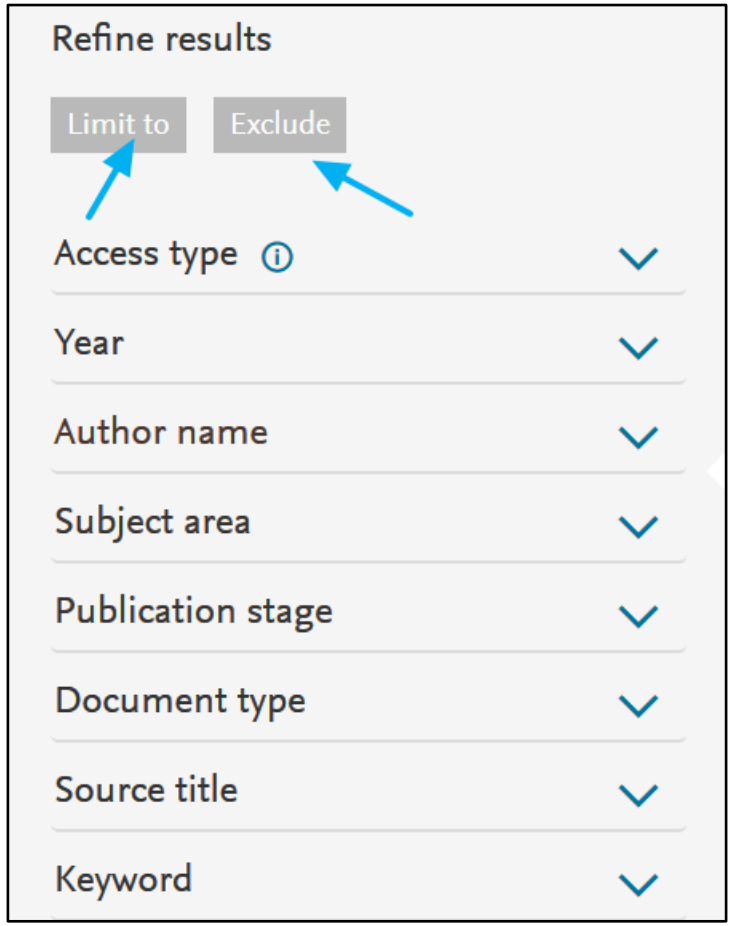
Results page example



Sorts

- The default sort order is usually relevance (number of times keywords appear in the document).
- But it may be helpful to use other criteria:
  - Chronological (ascending or descending)
  - By sources
  - By number of citations, etc.

Filters – Refine results (inclusion/exclusion criteria)



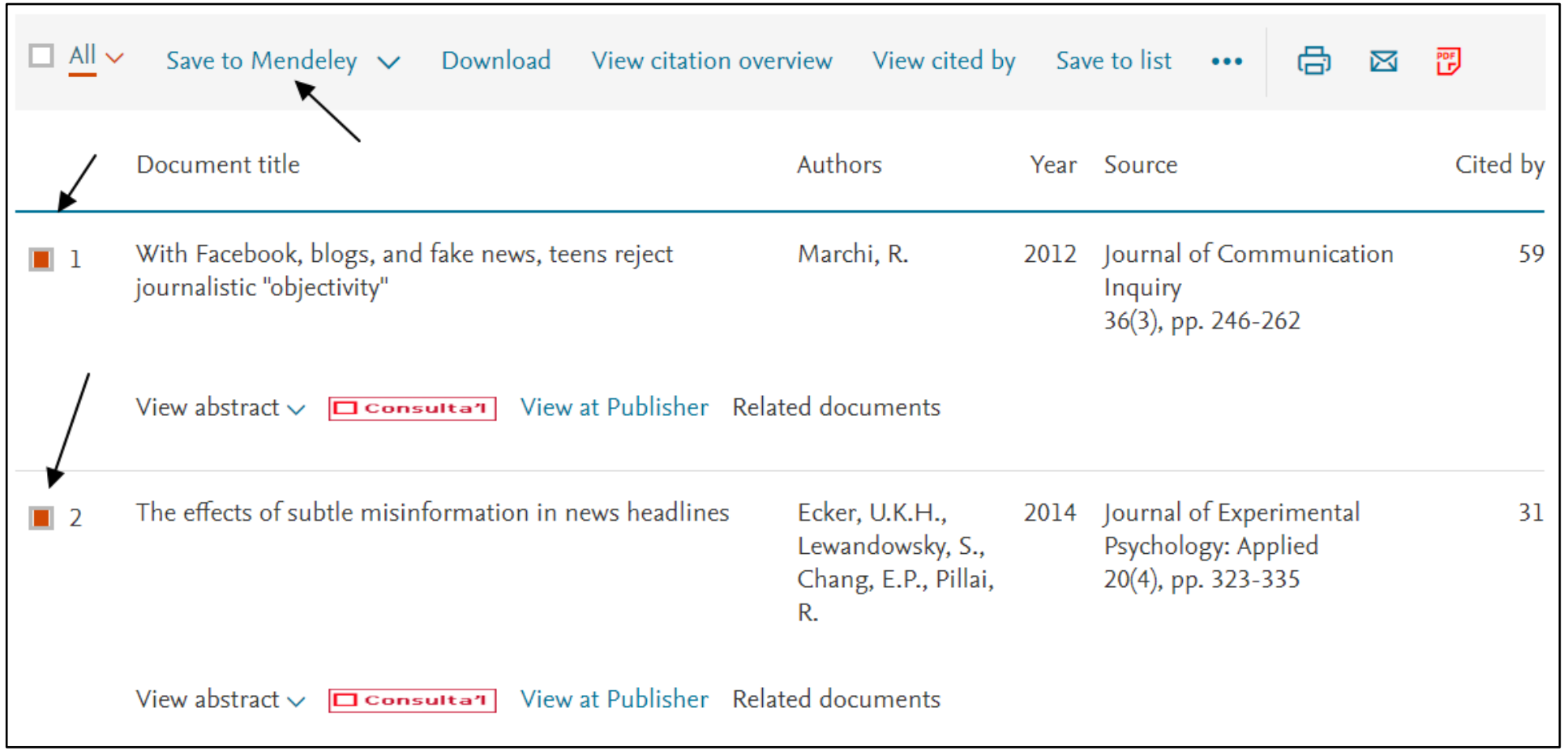
Examples of valid criteria for filtering results (narrowing the search set)

- Date ranges, e.g., last 6 years
- Document type, e.g., journal articles
- Thematic areas
- Languages
- Countries

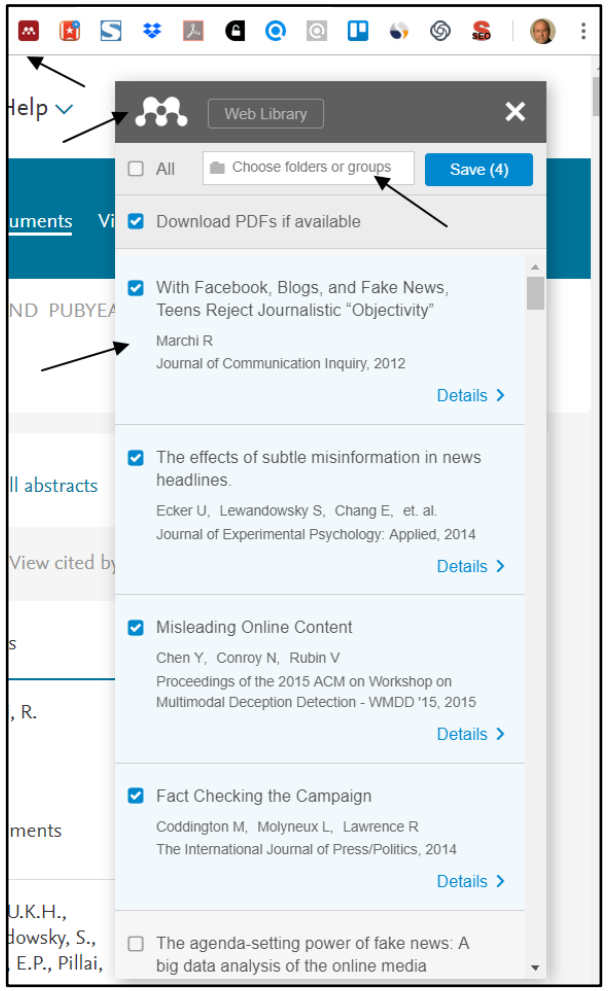
Exports

- We can export results from one or more selected references. Options:
  - All results
  - One-page results
  - References marked one by one
- Export of references:
  - Direct mode: to a reference manager
  - Indirect mode: export from an intermediate file, and import from the manager

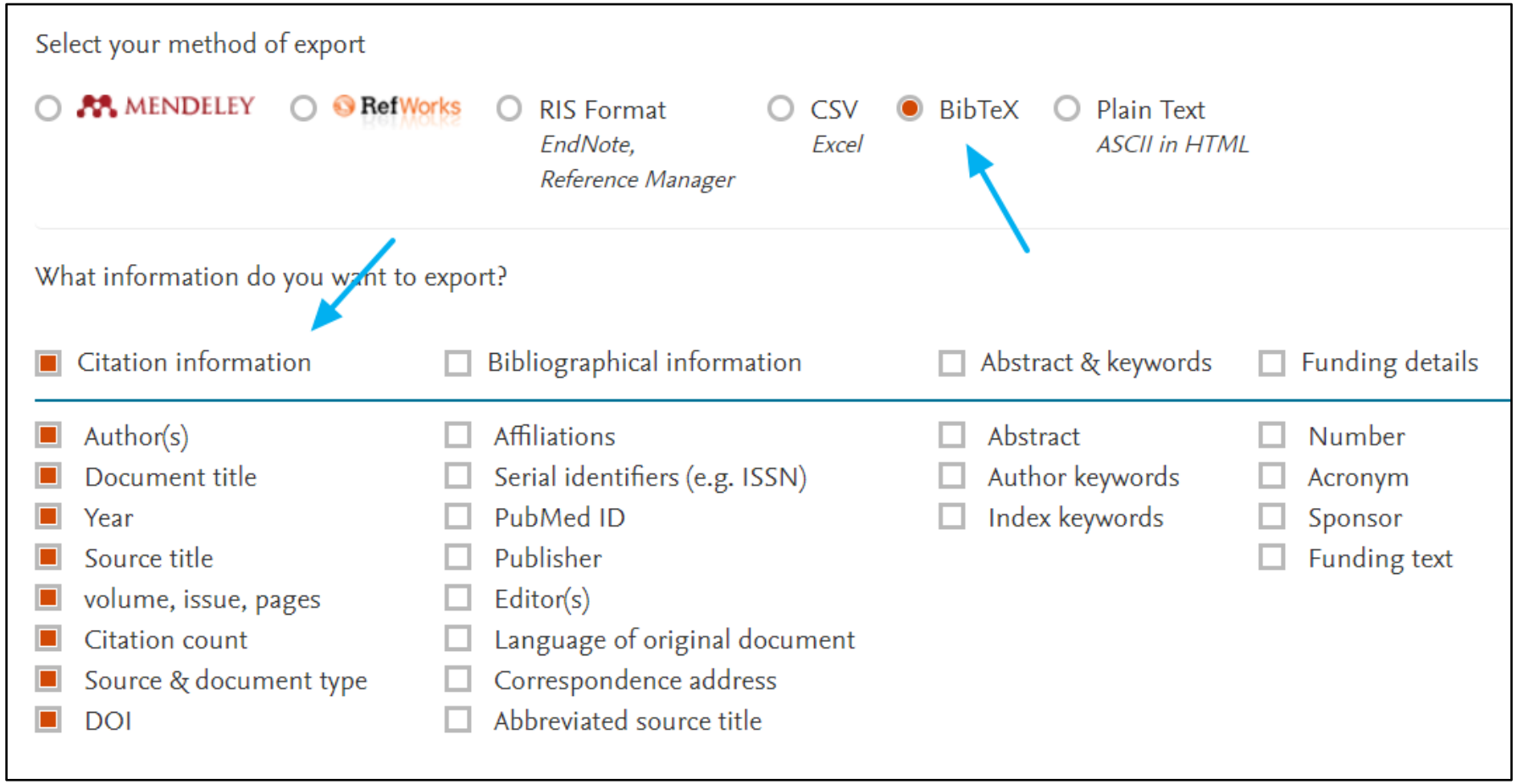
Direct export > **Save to Mendeley**



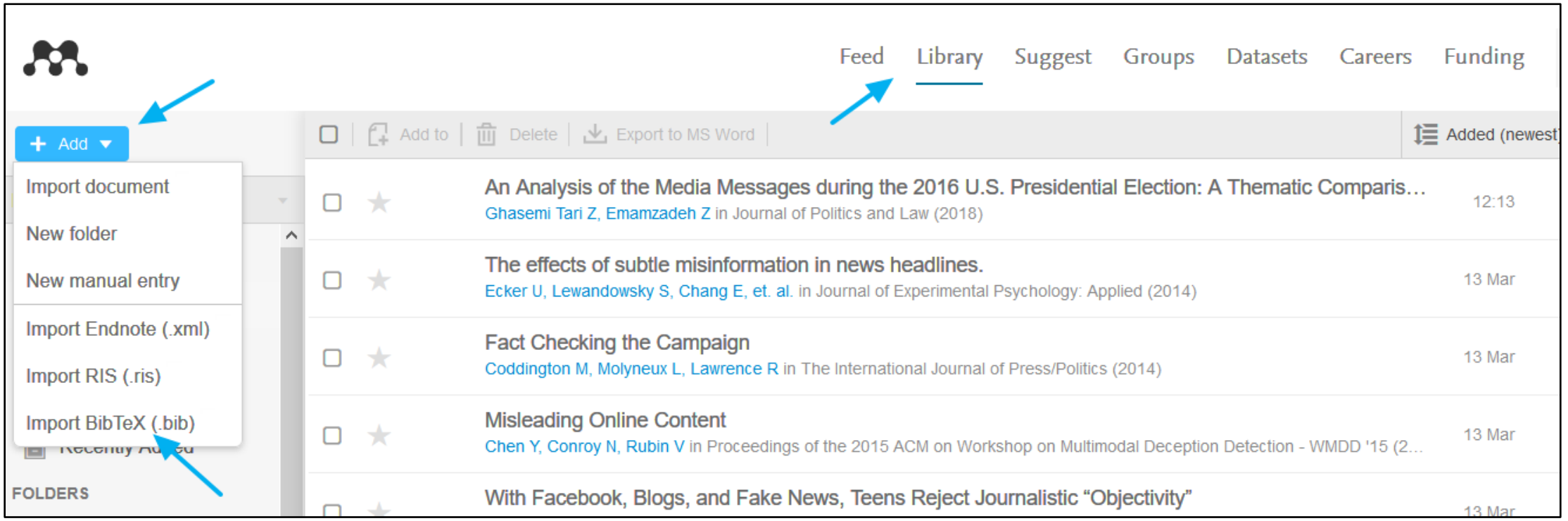
Mendeley navegator plugin



Two steps export > BibTeX



Mendeley import



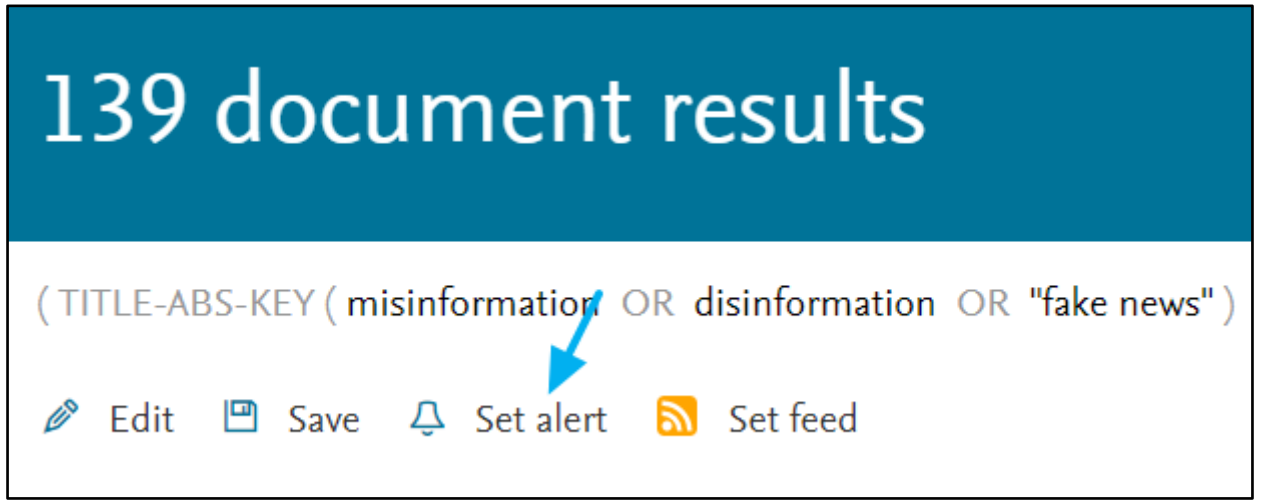
Full document

- Complete document:
  - Open access
  - Journal subscribed by the university
- Only as a reference
  - Internet search > repository or author version
- Request through the library - may have associated costs

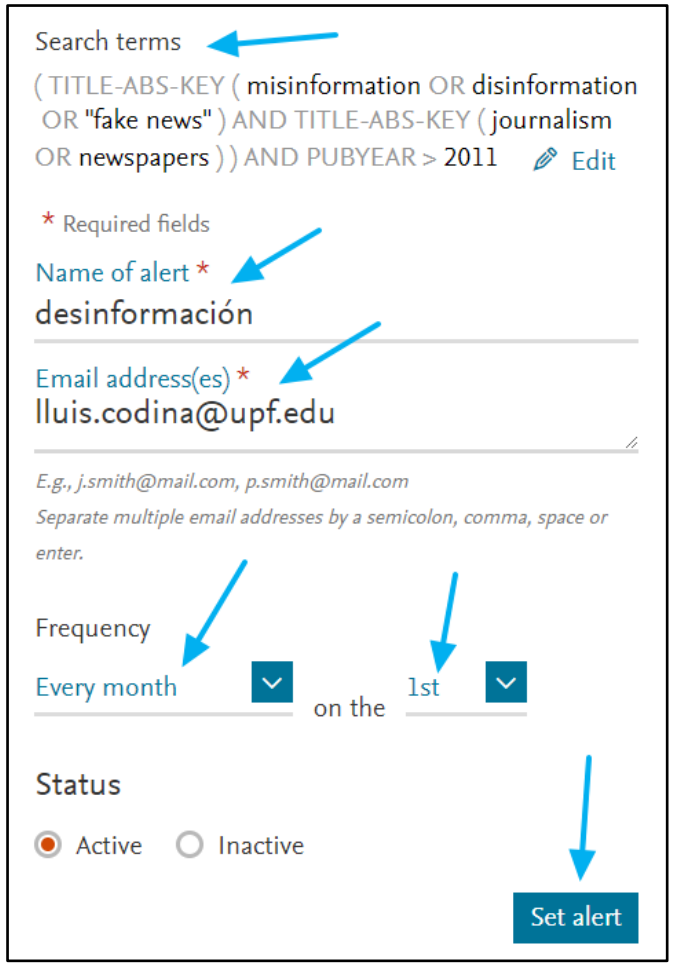
Alerts

- **Topics**: from results page
- **Citation**: from article record
- **Author**: form author profile

Thematic alert > from results page



Example


Search terms
(TITLE-ABS-KEY (misinformation OR disinformation OR "fake news") AND TITLE-ABS-KEY (journalism OR newspapers)) AND PUBYEAR > 2011
Edit
* Required fields
Name of alert *
desinformación
Email address(es) *
lluis.codina@upf.edu
E.g., j.smith@mail.com, p.smith@mail.com
Separate multiple email addresses by a semicolon, comma, space or enter.
Frequency
Every month
on the
1st
Status
Active
Inactive
Set alert

Search history

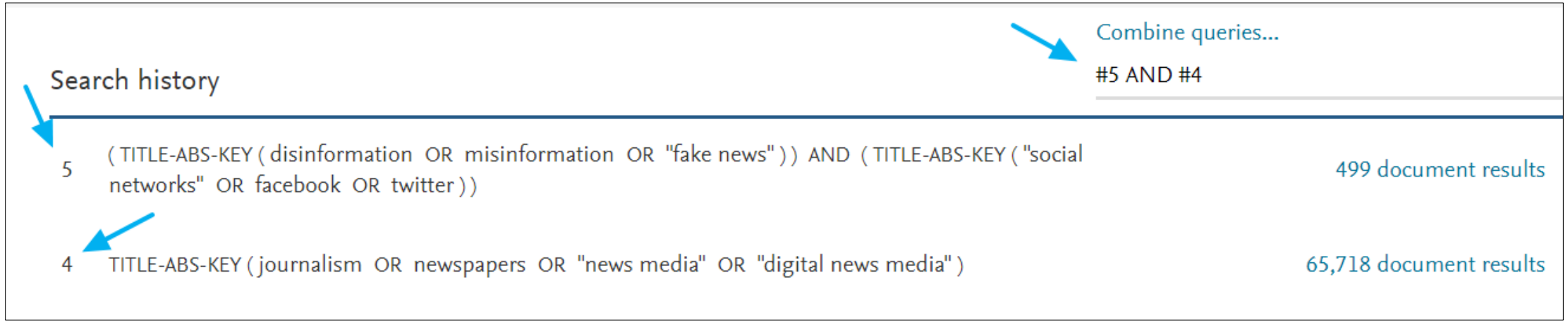
Example

Combine queries...
Search history
#2 AND #3
4 TITLE-ABS-KEY (journalism OR newspapers OR "news media" OR "digital news media")
3 TITLE-ABS-KEY ("social networks" OR facebook OR twitter)
2 TITLE-ABS-KEY (disinformation OR misinformation OR "fake news")

Results

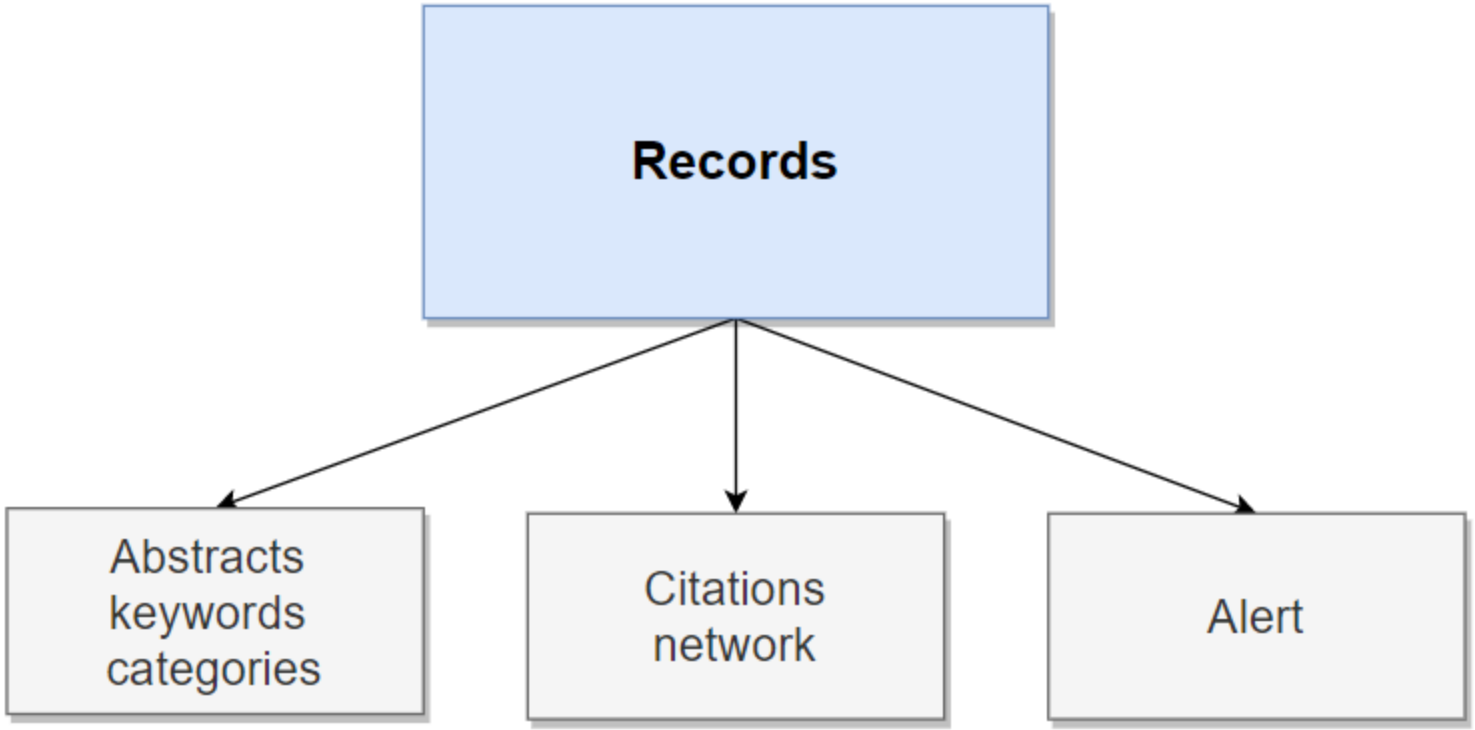
499 document results
View secondary documents
View 5
(TITLE-ABS-KEY (disinformation OR misinformation OR "fake news")) AND (TITLE-ABS-KEY ("social networks" OR facebook OR twitter))
Edit
Save
Set alert
Set feed

Example 2


Combine queries...
#5 AND #4
Search history
5 (TITLE-ABS-KEY (disinformation OR misinformation OR "fake news")) AND (TITLE-ABS-KEY ("social networks" OR facebook OR twitter))
499 document results
4 TITLE-ABS-KEY (journalism OR newspapers OR "news media" OR "digital news media")
65,718 document results

Results example 2

PART 3: ARTICLE RECORDS

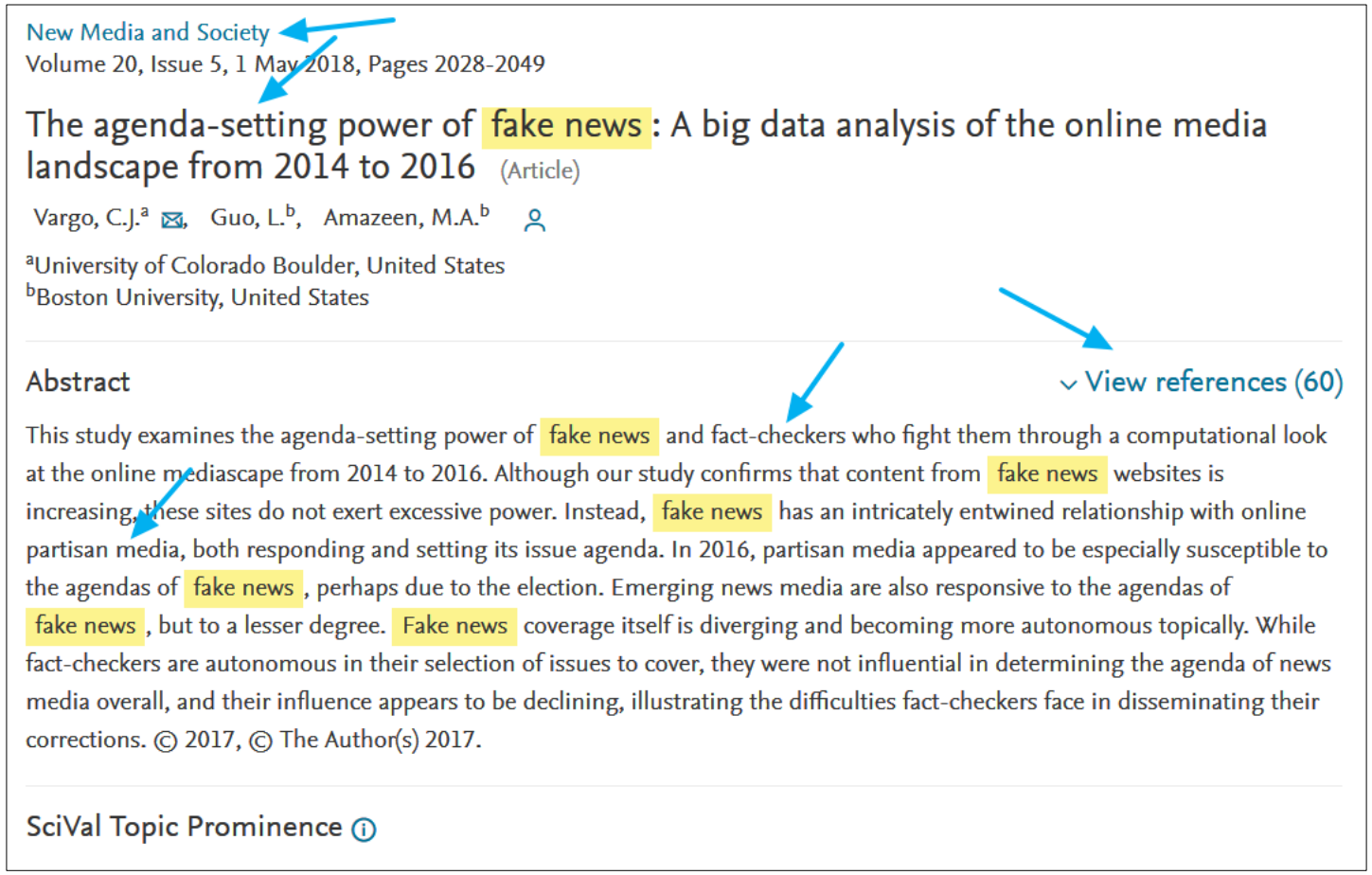


Records: information discovery

- **Seed documents**: those of special relevance to our research. Not necessarily highly cited if they are recent.
- **Data** to obtain:
  - Author affiliation
  - Source (journal or conference)
  - New keywords ideas
  - Cited references linked to the same research field, but with different keywords
- **Related** documents
- **Citation alert**

Record example

Record - Example 2



New Media and Society
Volume 20, Issue 5, 1 May 2018, Pages 2028-2049

The agenda-setting power of fake news: A big data analysis of the online media landscape from 2014 to 2016 (Article)

Vargo, C.J.[a], Guo, L.[b], Amazeen, M.A.[b]

[a]University of Colorado Boulder, United States
[b]Boston University, United States

Abstract

View references (60)

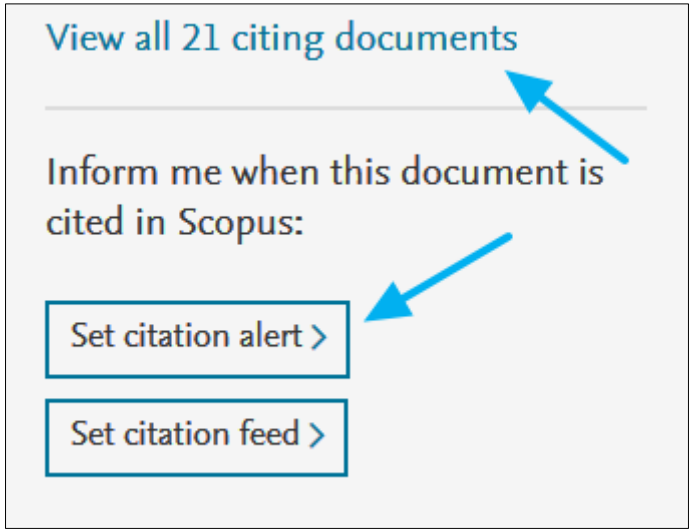
This study examines the agenda-setting power of fake news and fact-checkers who fight them through a computational look at the online mediascape from 2014 to 2016. Although our study confirms that content from fake news websites is increasing, these sites do not exert excessive power. Instead, fake news has an intricately entwined relationship with online partisan media, both responding and setting its issue agenda. In 2016, partisan media appeared to be especially susceptible to the agendas of fake news, perhaps due to the election. Emerging news media are also responsive to the agendas of fake news, but to a lesser degree. Fake news coverage itself is diverging and becoming more autonomous topically. While fact-checkers are autonomous in their selection of issues to cover, they were not influential in determining the agenda of news media overall, and their influence appears to be declining, illustrating the difficulties fact-checkers face in disseminating their corrections. © 2017, © The Author(s) 2017.

SciVal Topic Prominence

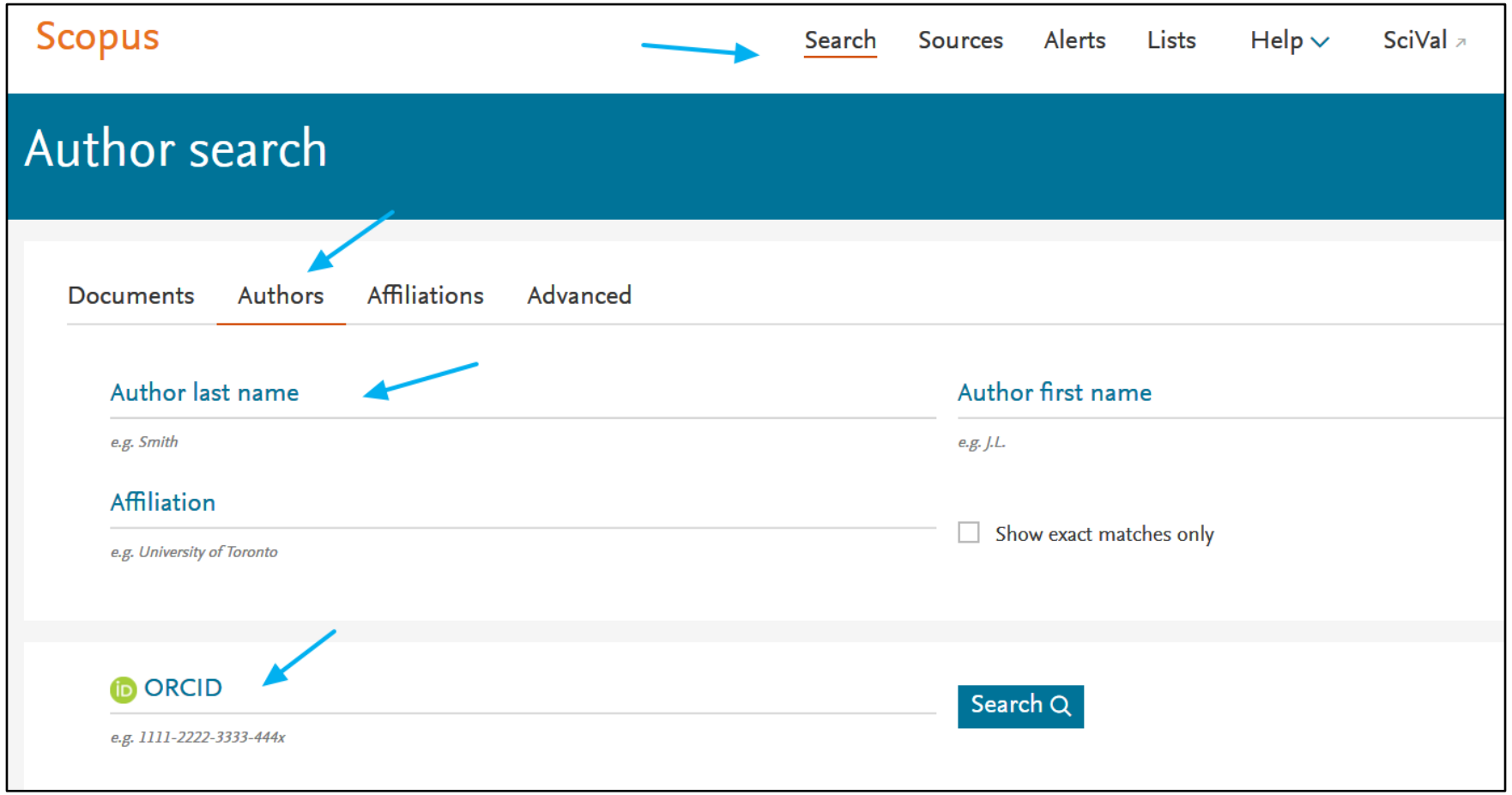
Record – Author keywords

Record – Related documents

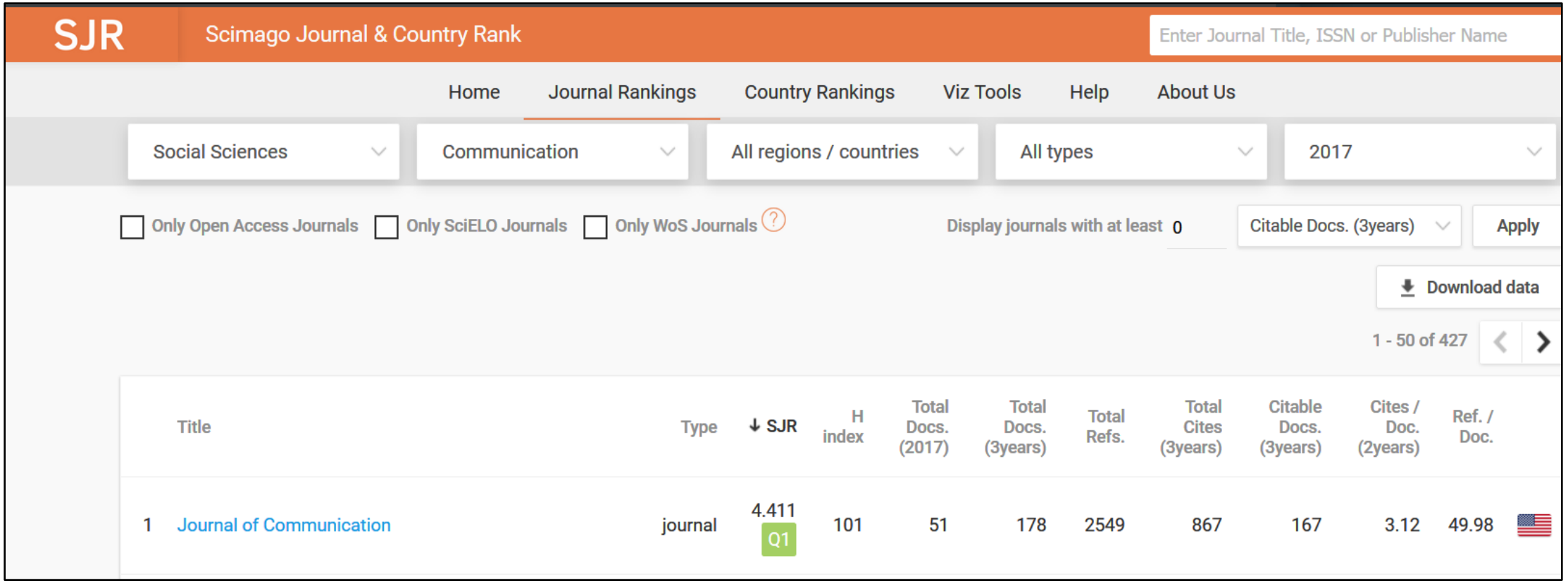
Record – Citation alert



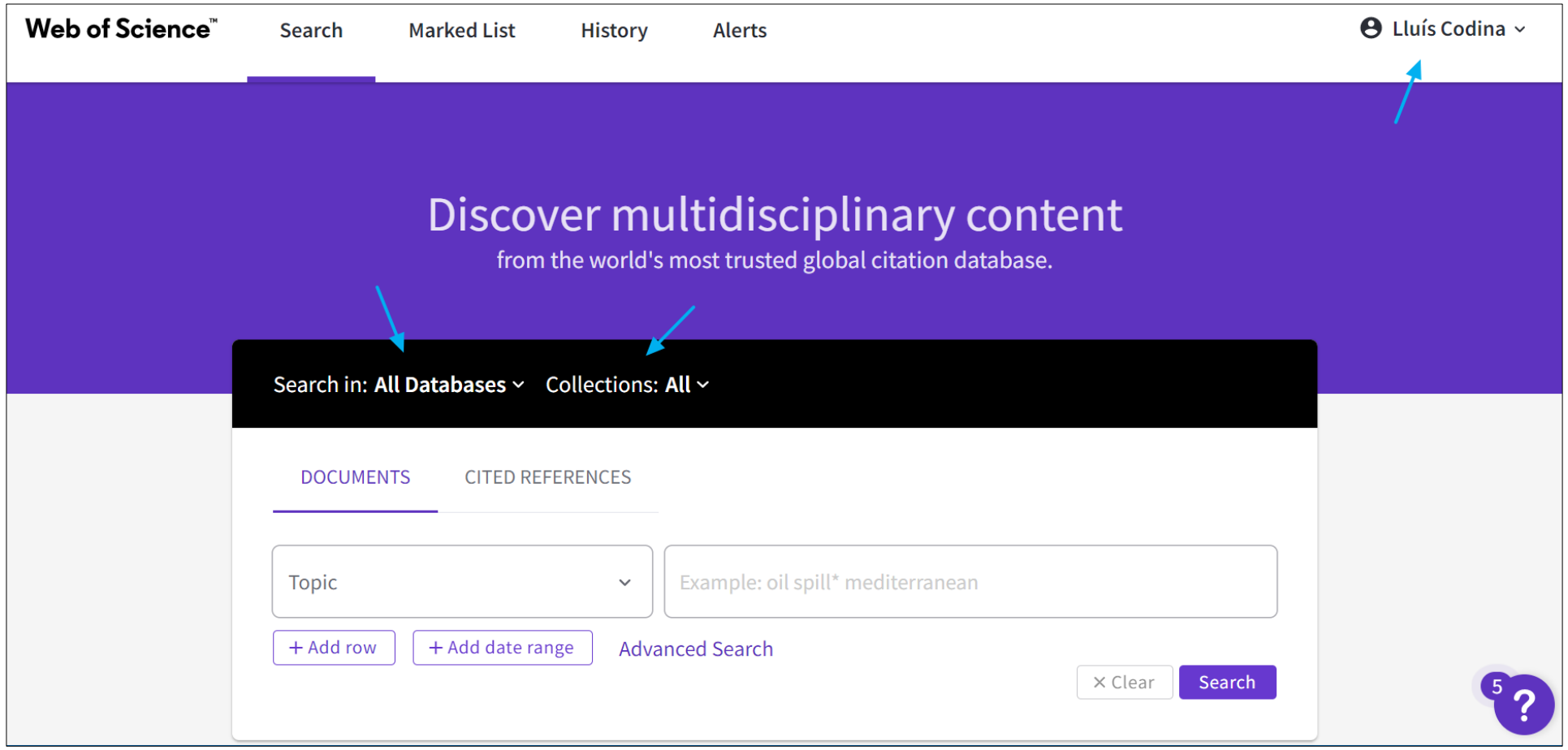
Author profiles



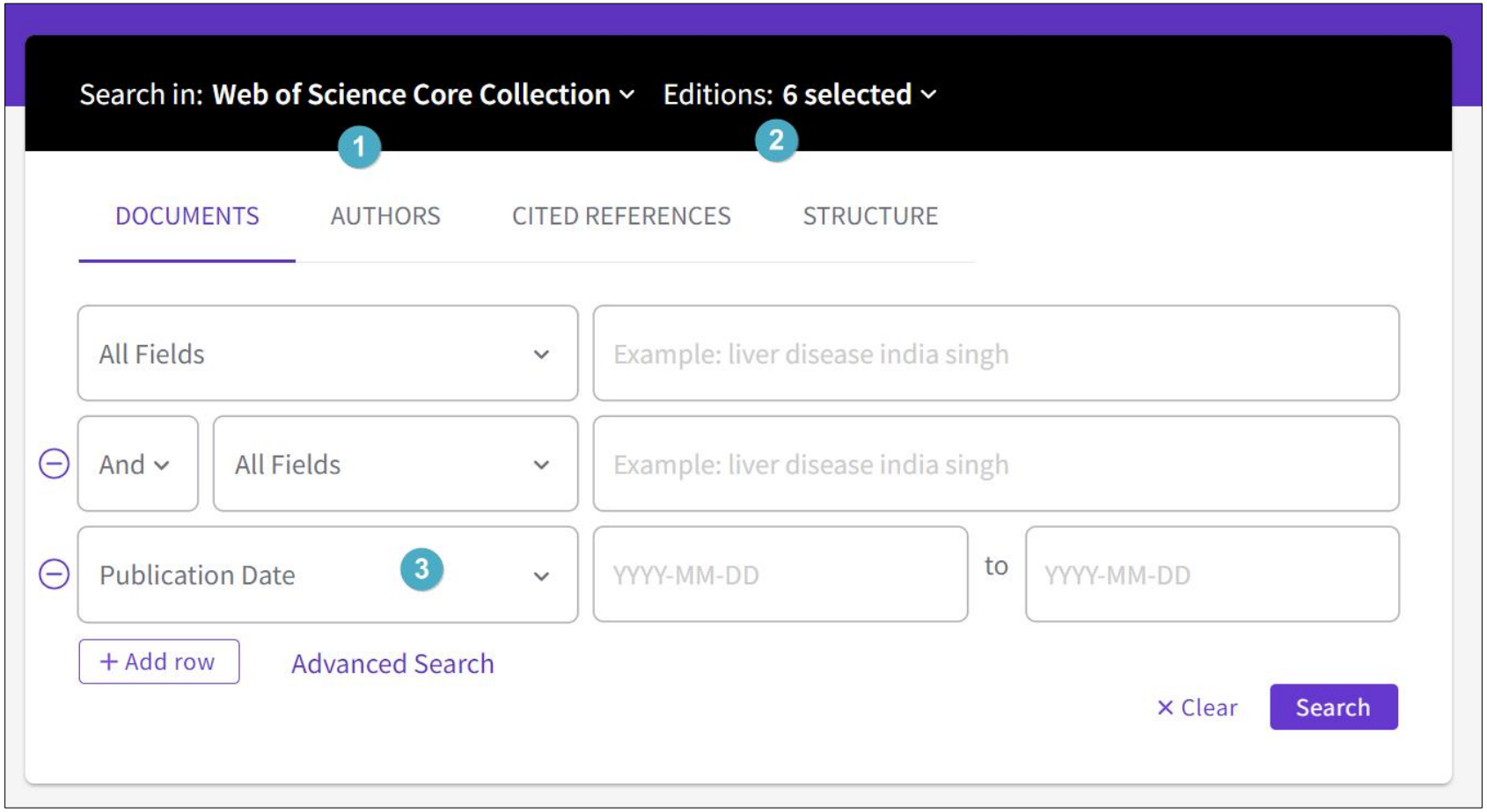
Other sources: Scimago



Web of Science (WoS) with login



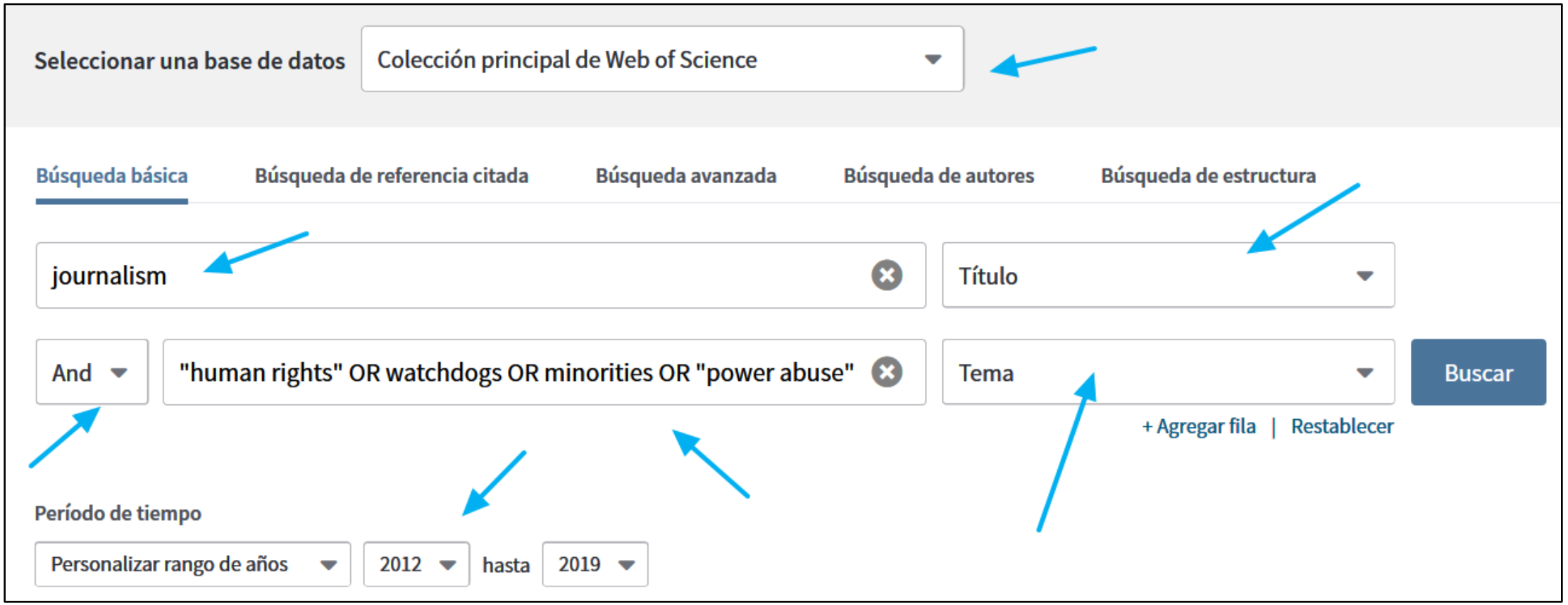
WoS: essential configuration points



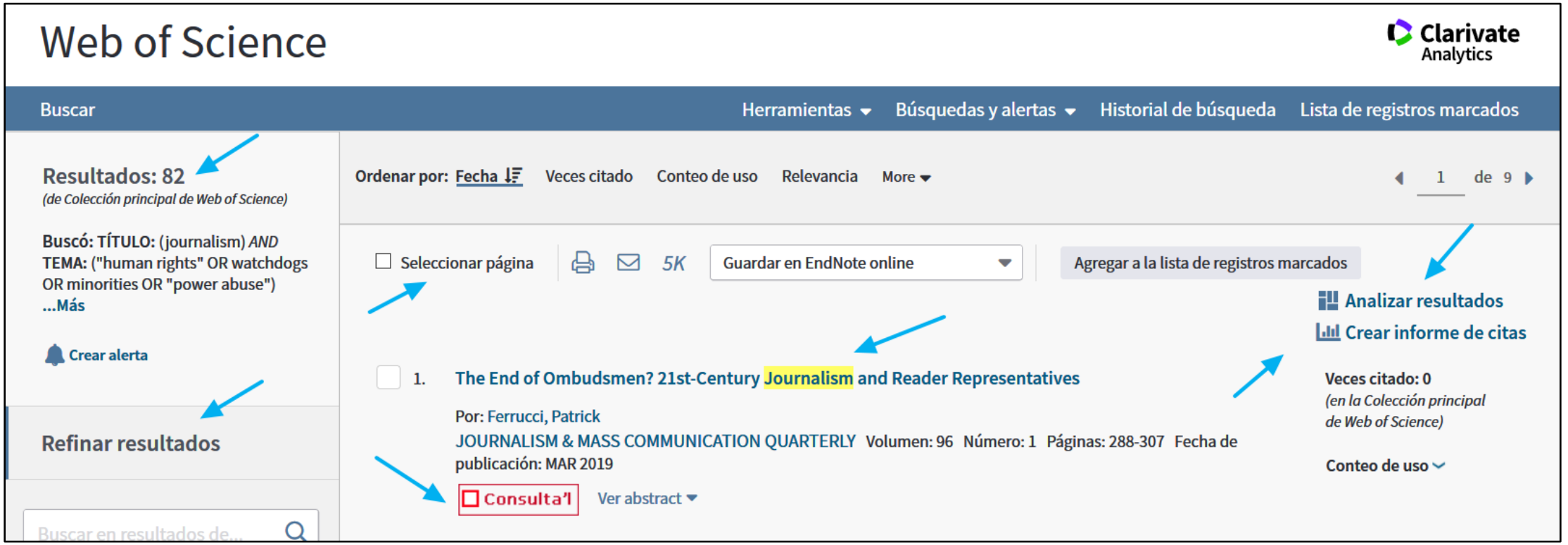
Advice

- Except for singular researches, **never** use the ***All databases*** option.
- Instead > **Core Collection:**
  - *Social Sciences Citation Index*
  - *Arts and Humanities Citation Index*
  - *Emerging Sources Citation Index*
  - Optional:
    - Conference proceedings
    - Books chapters

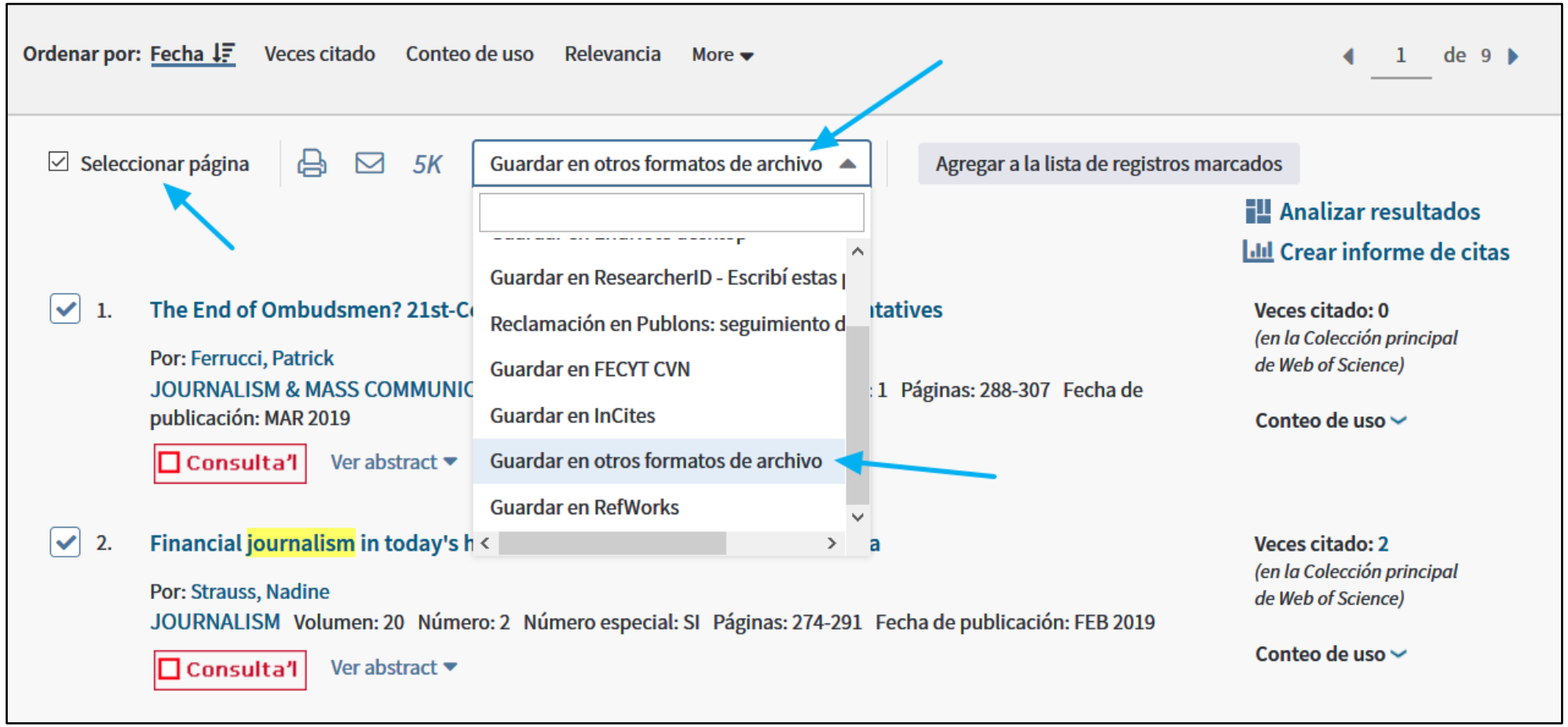
WoS: advanced Search form



WoS: results page

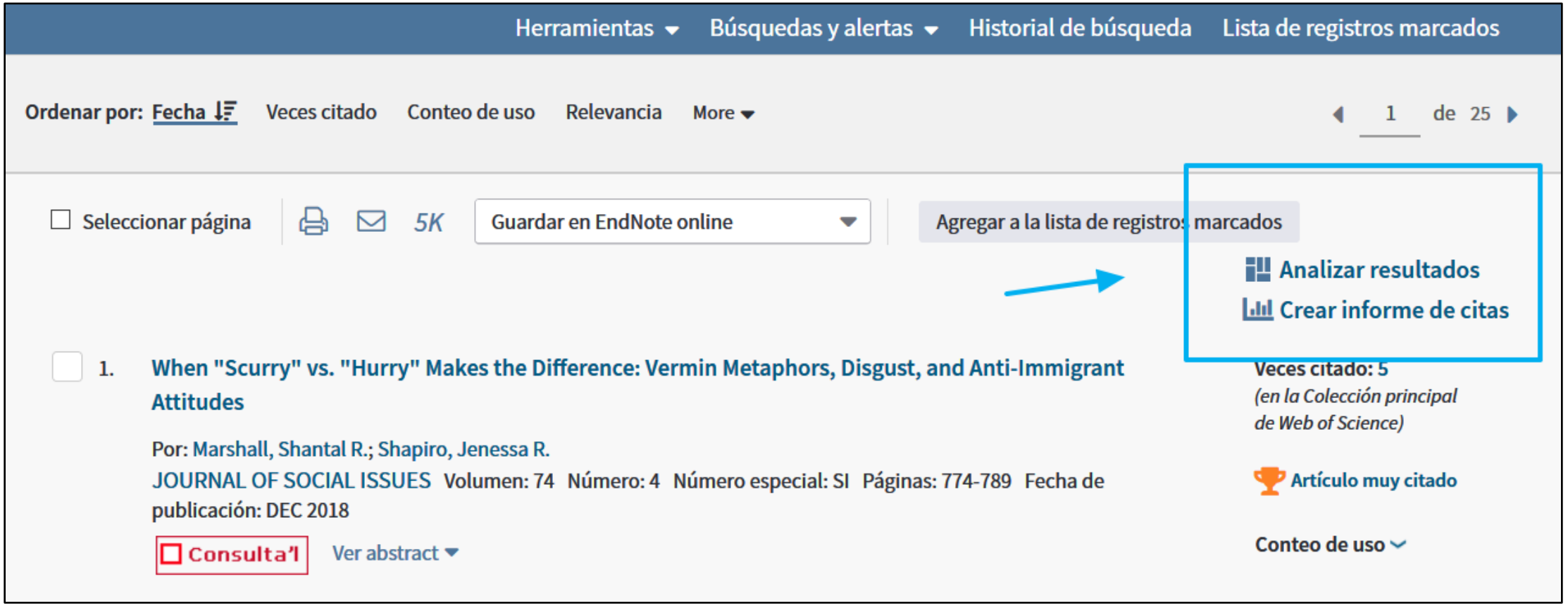


WoS: exports - 1



WoS: exports - 2

WoS: analysis



Other academic databases for PhD Thesis in communication studies

- Multidisciplinary databases
  - Dialnet Plus > important for Spanish research
  - ERIH PLUS > similar to Scopus (a project from EU)
- Specialized databases
  - Communication Source
  - Film & Television Literature Index
  - Humanities Source
- The most important editorial platforms
  - Taylor and Francis
  - SAGE Journals

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More information

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