

Searching Systematically

Methods for finding 'all' evidence on a topic

The class will start soon

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iSkills workshops

Searching Systematically

Methods for finding 'all' evidence on a topic

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After this session you will be able to...

- Explain what subject headings are, and how to use them
- Search for words that appear near to other words
- Take a search from one database into another
- Save a search and document it

Search 'basics'

- **PICO** – structure your question and search strategy
- Boolean logic for combining terms: where to use **OR** and **AND**
- Use **syntax** to search for phrases, variant word endings and spellings

Search 'basics': PICO

How effective is AI at detecting breast cancer?

P patient / population / problem → breast cancer

I(E) intervention / exposure → artificial intelligence screening

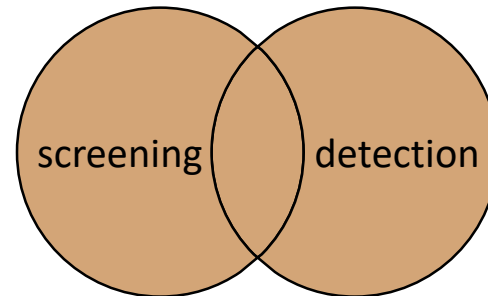
C comparison, control → n/a

O outcome → efficacy of AI screening

Search 'basics': combining terms

OR

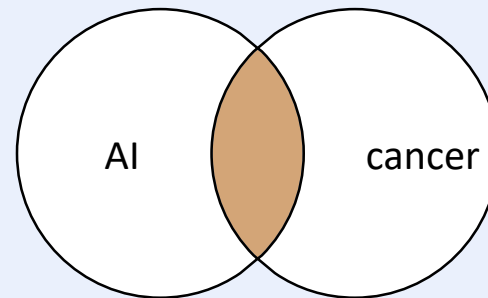
Broadens
your search



screening OR detection

AND

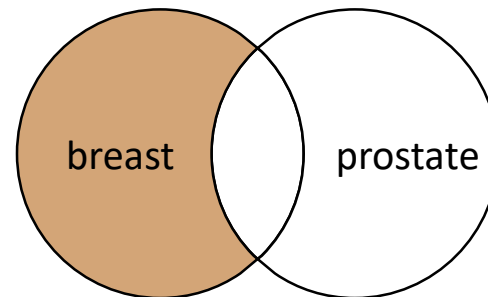
Narrows
your search



AI AND cancer

NOT

Narrows
your search



breast NOT prostate

Search 'basics': putting it all together

("breast cancer*")

AND

(ai **OR** "artificial intelligence" **OR** "machine learning")

AND

(detect* **OR** screen*)

* = truncation

"..." = phrase searching

Structured search: subject headings

- Articles are tagged with keywords from a structured vocabulary
- A search for these keywords retrieves articles on the topic
- Most famous is MeSH (Medical Subject Headings) found in PubMed, Medline and Cochrane databases
- Other databases (Embase, CINAHL and more) have their own equivalent
- Look for buttons for **MeSH**, **Subject Headings**, or **Thesaurus**
- Not all databases use subject headings (Web of Science, Scopus).

Searching in more than one database (1)

Known as 'translation' – you can adapt a search from one database and run it in another:

- Different databases have different subject/journal coverage
- Systematic reviews require you to find all evidence – it won't all be in one place
- Even if you don't find new papers you can demonstrate that you tried

Searching in more than one database (2)

Which medical databases have you used or heard of?

- PubMed website searches MEDLINE (plus some extra sources)
- MEDLINE, Embase, PsycINFO can be searched in Ovid
- Other 'platforms' such as EBSCOhost provide CINAHL
- Web of Science and Scopus have coverage beyond medical sciences

Demo time!

Let's run our search in Embase...

Search process: note taking

At some point, you'll write up your review. To report the search accurately keep records of:

- Search terms used – full search strategy for each database
- Including any limits applied or filters used
- Record the date on which you searched
- If you did any citation tracking, describe how
- Also record any general web searches

Summing up

In today's session we have:

- Recapped searching 'basics'
- Taken a basic PubMed search into Embase (Ovid)
- Applied subject headings and proximity operators
- Translated it for MEDLINE (Ovid) and CINAHL (EBSCOhost)
- Saved and exported our searches for our records and future reporting

Managing and organising references

Reference management software

- [EndNote](#) and [RefWorks](#) (OU subscription)
- [Zotero](#) (Free)

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Search process: questions

- Contact us
 - hcl-enquiries@bodleian.ox.ac.uk
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