



ARDI Searching Strategies

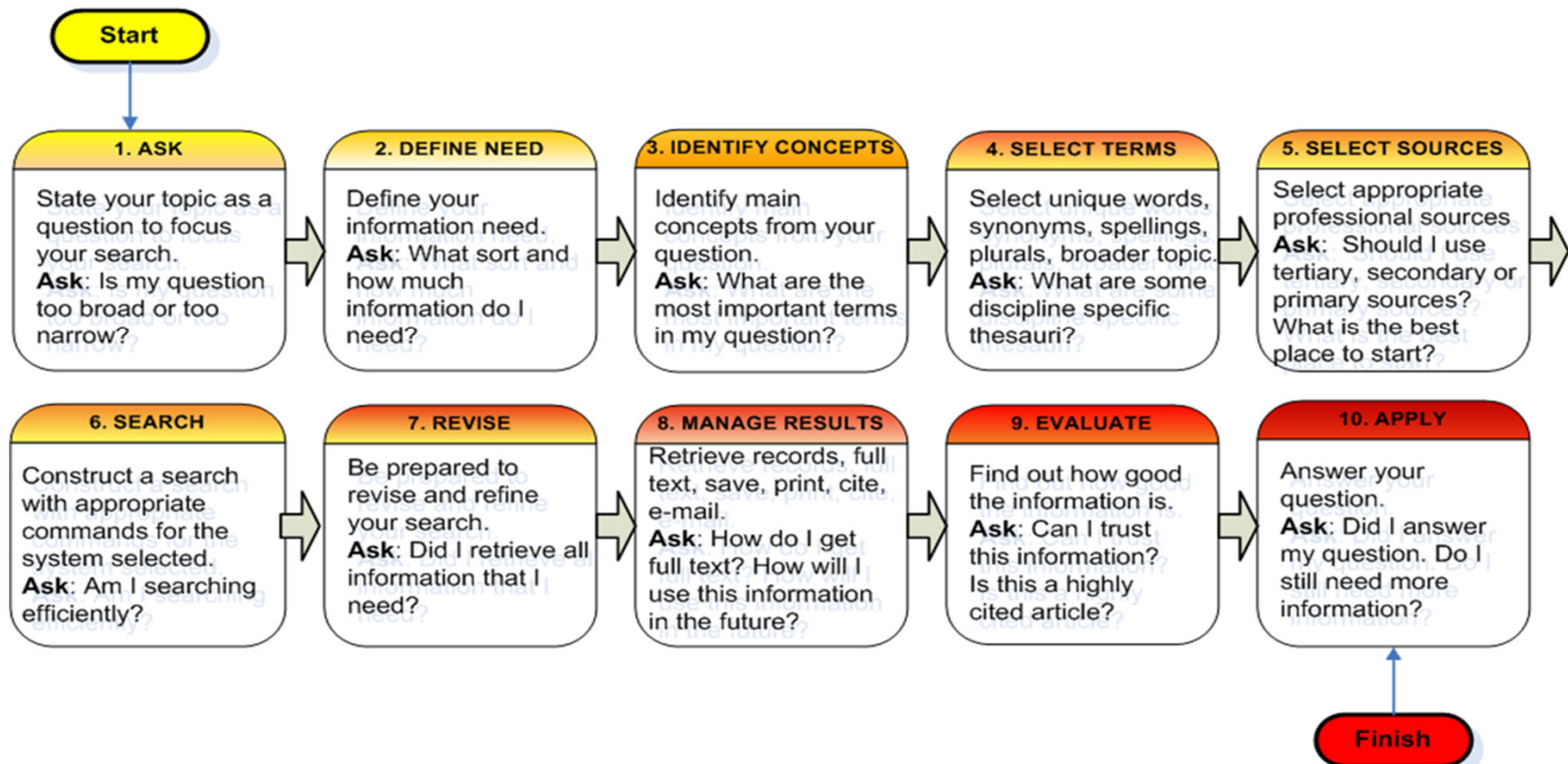
Module 2

Module 2: ARDI Searching Strategies

- Planning a Search Strategy
- Boolean Operators
- Evaluating Internet Information

Planning a Search Strategy

Developing a Search Strategy: Process Overview



Remember: Your question drives the search strategy. There is no one best way to search. Avoid one stop searching to prevent bias.

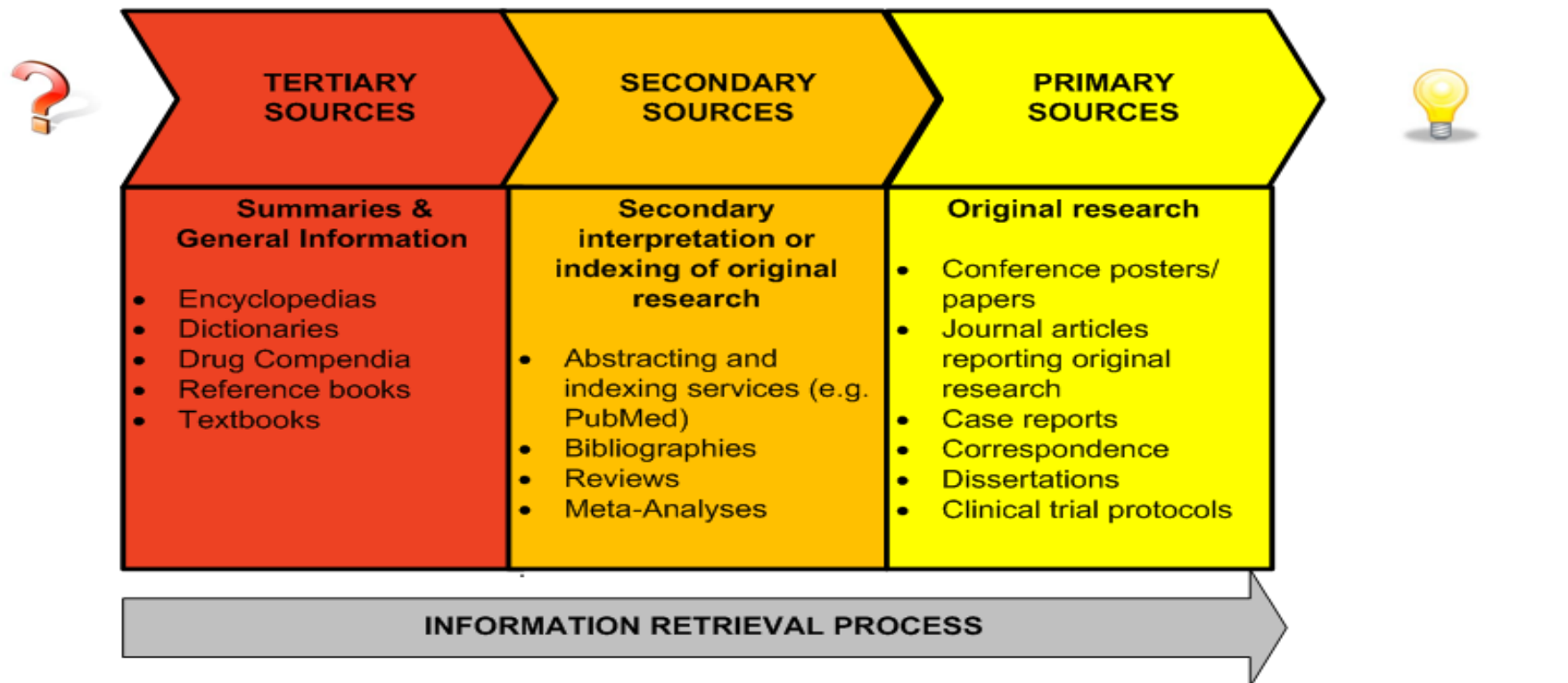
Steps 1– 4: Example (solar panels and electricity)

- Ask: Question: How can solar panels be used for electricity?
- Need: scholarly/primary research
- Main Concepts: solar panels or cells and electricity
- Select Terms:
 - Broader terms: ‘energy’, ‘power’, sun
 - Synonyms: solar/photovoltaic, energy/electricity, panels/cells
 - Alternative spellings: none
 - Plurals: cell(s), panel(s)
 - Capitalization: be aware of relevancy ranking

Step 5: Select a Source

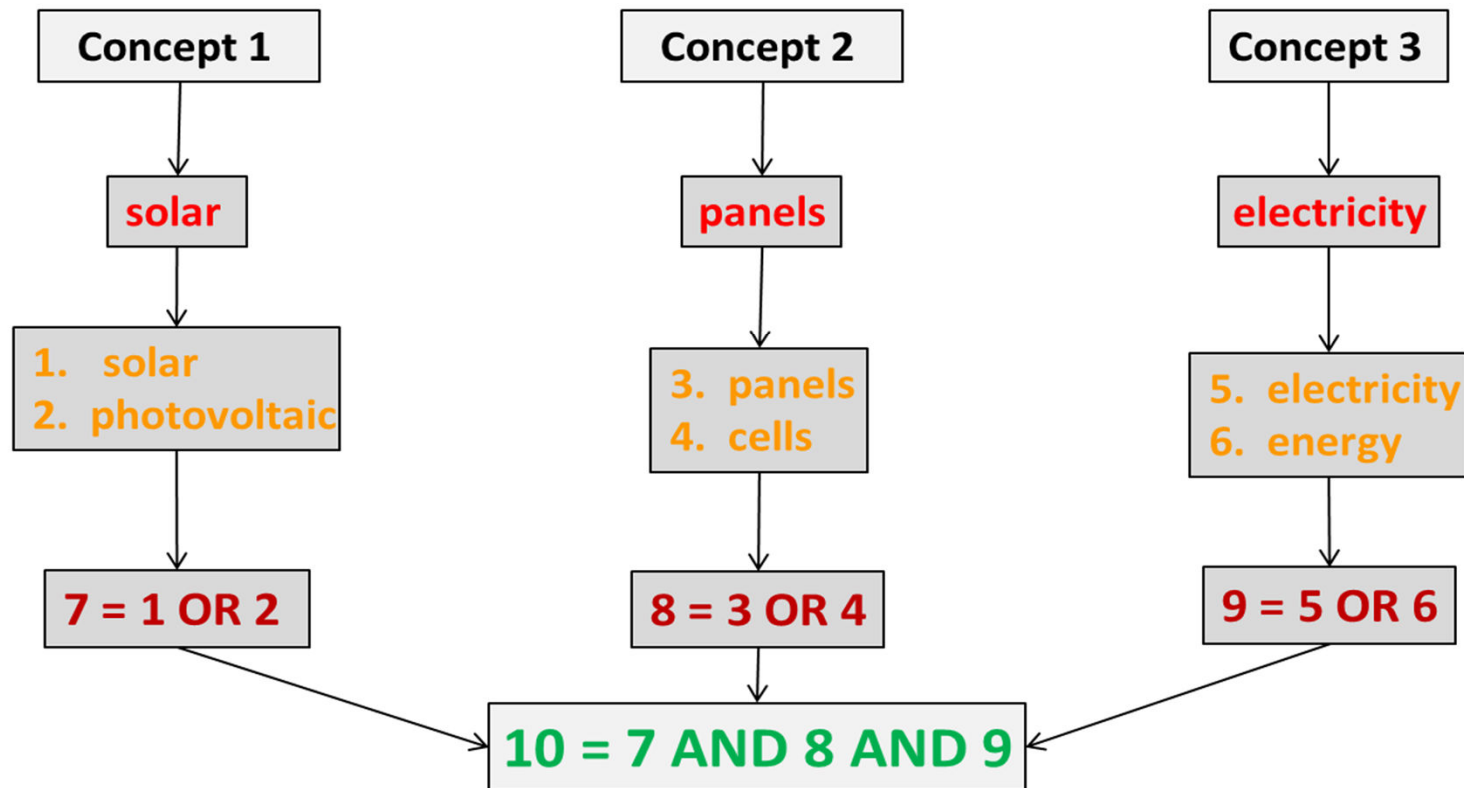
Types of Information Sources and Information Retrieval Process

Sources are considered primary, secondary, or tertiary based on the originality of their information and its proximity to the original source. When you are looking for answers you may need to consult several types. No single source is comprehensive



Step 6: Construct a search using the appropriate commands and best practices

Question: How can solar panels be used for electricity?



Step 7: Revise

- Review and refine search
 - be prepared to review/revise your search
 - keep your search terms in concept sets/zones but remember to explore subtopics
 - try new sources of information
 - save the search and citations for future use
 - promote use of high-quality resources

Step 8: Manage Results

- Download, print, save, e-mail results and search history
- Cite using a scientific citation style
- Save search, set up alerts

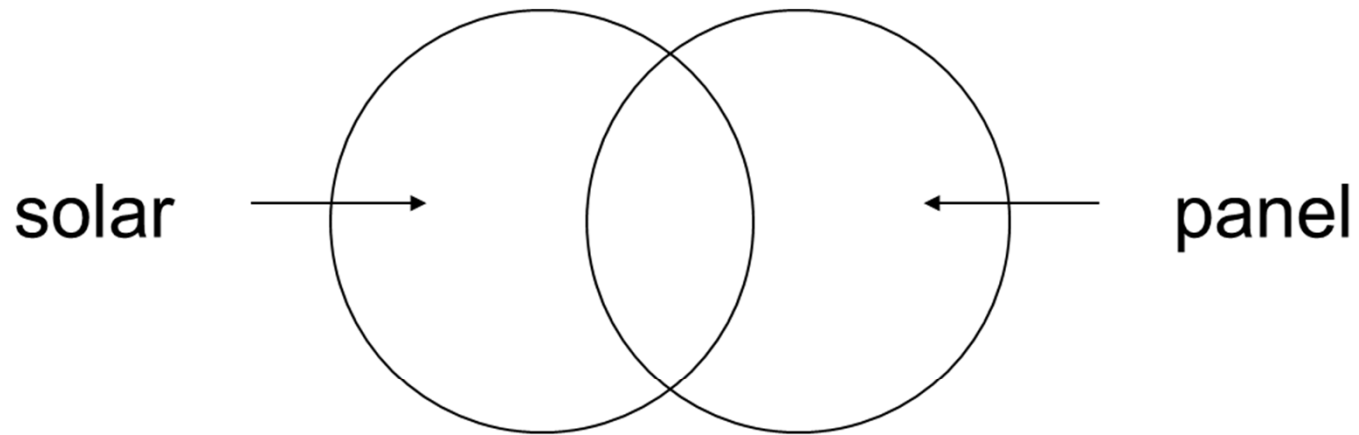
Step 9: Evaluate

- Who? When? Where? What? And Why?
 - Accuracy
 - Authority
 - Objectivity
 - Currency
 - Coverage

Step 10: Apply

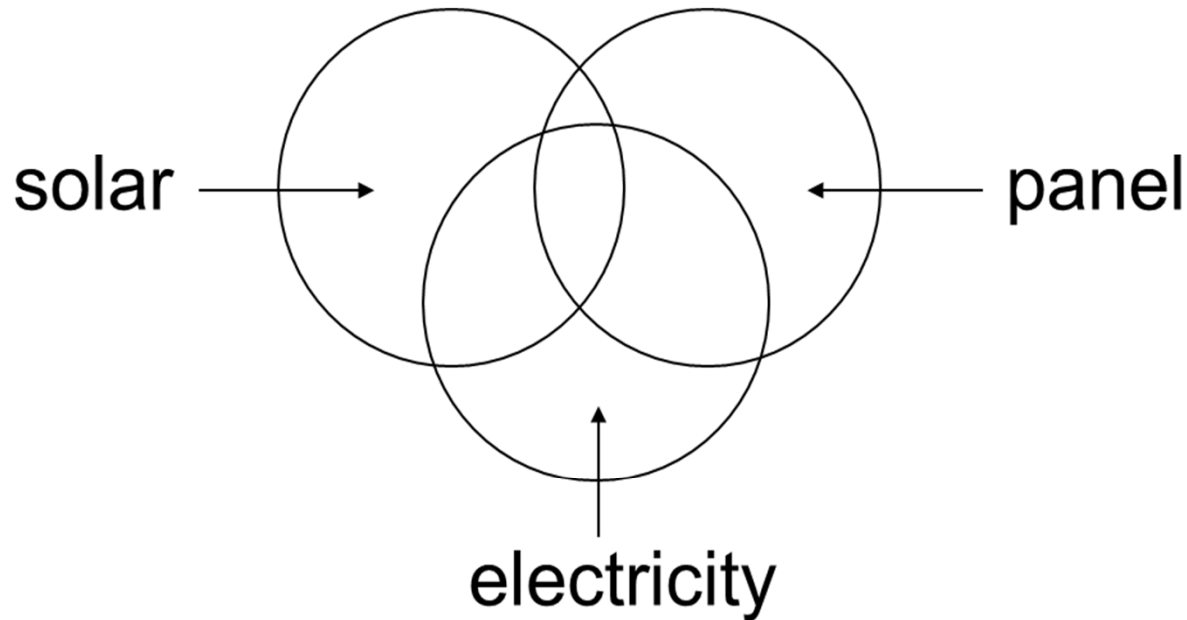
- Answer the question

Boolean Operators: AND Operator (to combine two concepts)



the **AND** operator is used to combine two concepts e.g. solar AND panel – results are in the combined area of the two circles

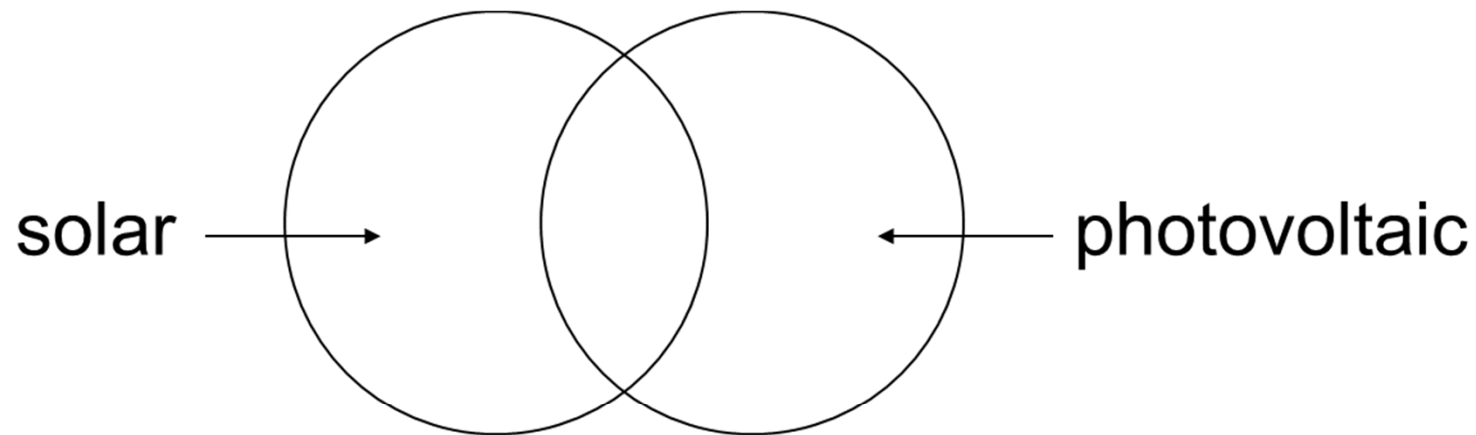
AND Operator (to combine three concepts)



the **AND** operator is used to combine three concepts e.g. solar AND panel AND electricity in the combined area of the three circles

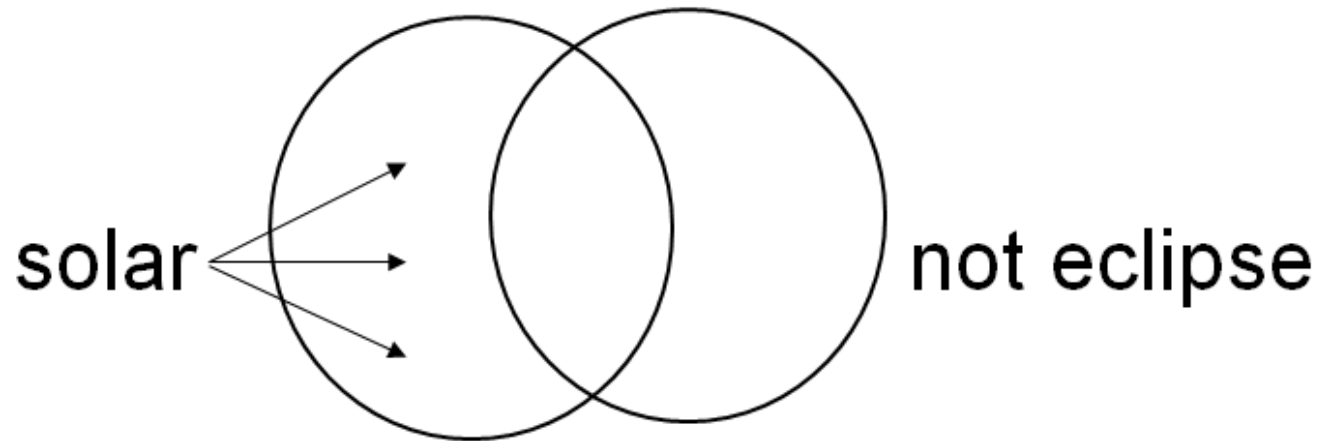
OR Operator

(information containing one or other term)



the **OR** is a means of combining synonyms e.g.
solar OR photovoltaic - in each circle's area with
the overlap in the middle having both search terms

NOT Operator (in one term or the other)

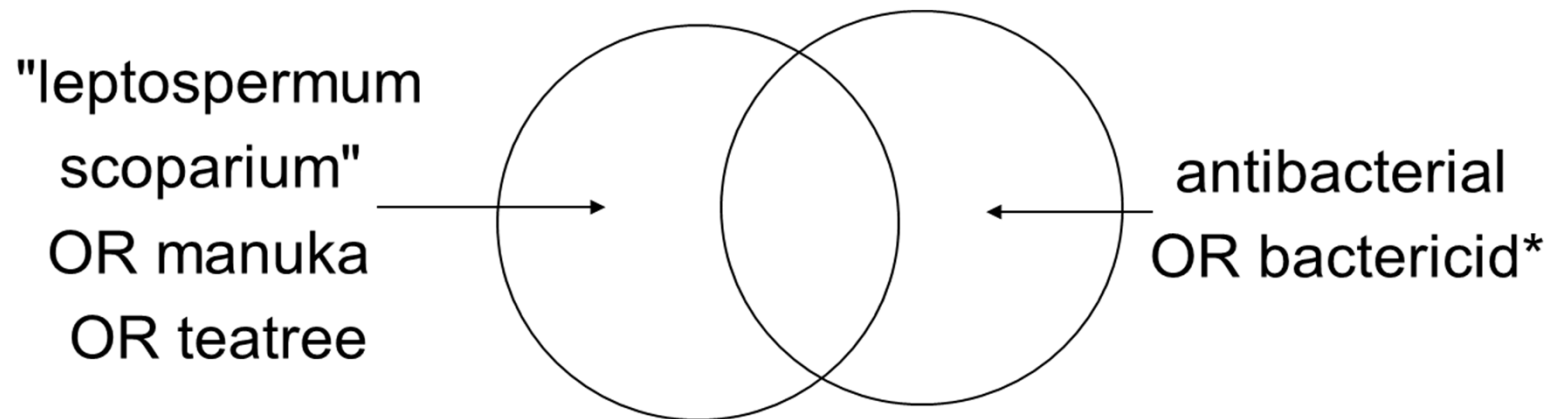


solar **NOT** eclipse – in the left side area; eliminates items in 2nd term (eclipse) or both terms

Other search engine functions

- Phrase or proximity searching: "..."
 - allows you to search for an exact phrase
 - Example: "solar power"
- Truncation/wildcards: * or ? or % or \$
 - can represent a range of characters
 - allow you to search alternative spellings and plurals
 - Example: panel? for panel OR panels
 - Example: bactericid* for bactericide, bactericides, or bactericidal

("leptospermum scoparium" OR manuka OR teatree) AND (antibacterial OR bactericid*)



Search results are in the combined area of the circles
The **(OR)** operator retains items in each term and the **AND** operator is used to combine two concepts

More Search Techniques

- Field Specific Searching
 - author, title, journal, date, url, etc.
- Language Restrictions, Humans or Animals and other limits
- Relevancy Ranking
 - a grading that gives extra weight to a document when the search terms appear in the headline or are capitalized

Criteria for Evaluating Web Information

- Accuracy - research methods explained, sources cited, includes bibliography; is a well written/edited information
- Authority - author recognized as expert or from an academic or scientific organization (see url/web address)
- Currency - date website updated: use of current research & sources
- Coverage - inclusion of material you need
- Design - ease to navigate (including links) and find what you want speed of website
- Objectivity - methods/results are not influenced by particular perspectives, values or bias; is not a personal website or that of an organization with a specific agenda

Evaluating Web Pages - Resources

- www.ed.ac.uk/information-services/library-museum-gallery/finding-resources/library-databases/databases-overview/evaluating-websites (primary source)
- medlineplus.gov/evaluatinghealthinformation.html
- guides.library.cornell.edu/evaluating_Web_pages
- usm.maine.edu/library/checklist-evaluating-web-resources
- www.sc.edu/beaufort/library/pages/bones/lesson5.shtml

Search Tools

- See Module 5 for information about the Summon search tool and Module 7 for the discussion of various tools – from ARDI and the Internet

Exercises

- This is the end of the ARDI Basic Course Module 2
- Complete the exercises for this module in the accompanying (exercises) word document
- Updated - July, 2018