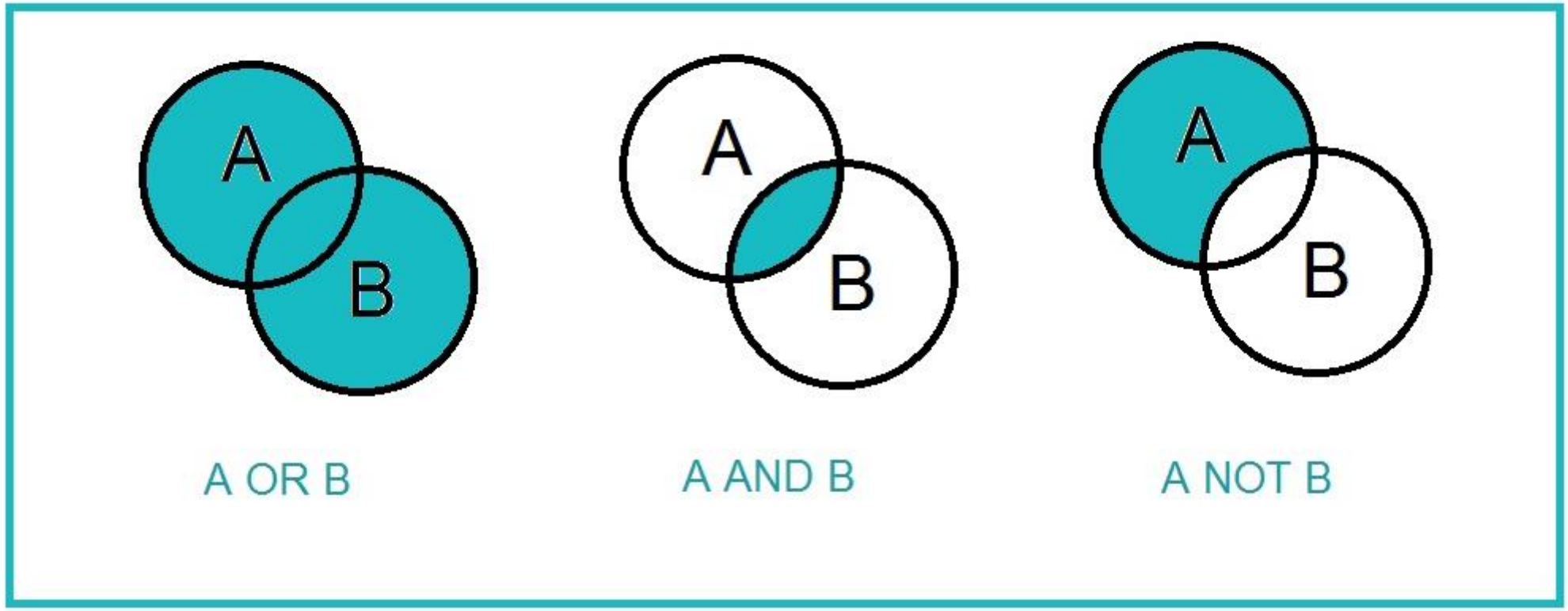
The language of databases

Boolean Operators



The language of databases

Databases do not understand natural language…so don't type in the same way as you would speak!

Let's say you are doing a research on *"The role of climate change in the extinction of frog and toad species"*.

If you type the whole question in the search box, the database will produce very few results if any at all.

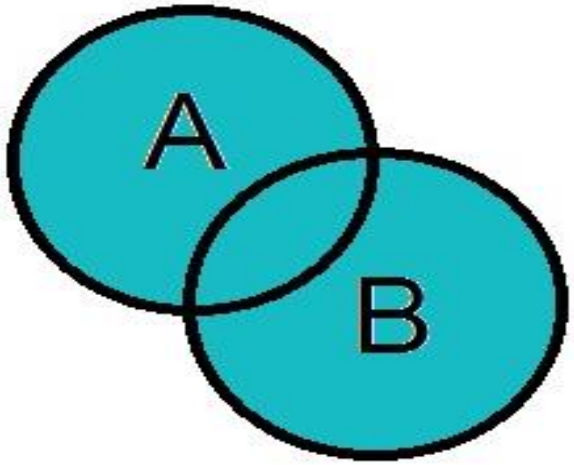
Concepts and Keywords

Databases only understand keywords and Boolean logic.

- Identify the main concepts of your questions and make a list of possible words that can describe them.
- Think of related terms, synonyms, different spellings, acronyms, abbreviations.

Climate change	Extinction	Frog
Global warming	Endangered species	Toad
Extreme weather	Habitat degradation	Amphibians
Droughts	Population	Anura

OR



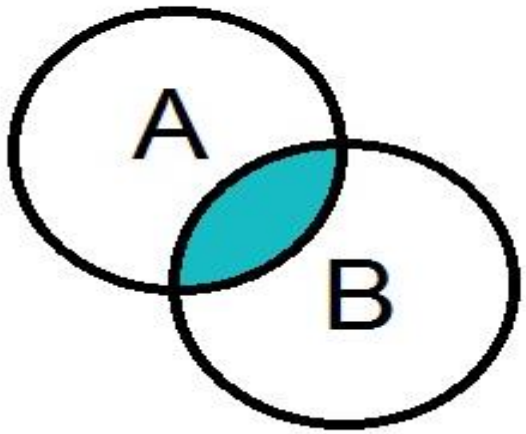
A OR B

Used to combine similar words:

- Related terms
- Synonyms
- Alternative spellings
- Abbreviations
- Acronyms

	Climate change
OR	Global warming
OR	Extreme weather
OR	Droughts

AND



A AND B

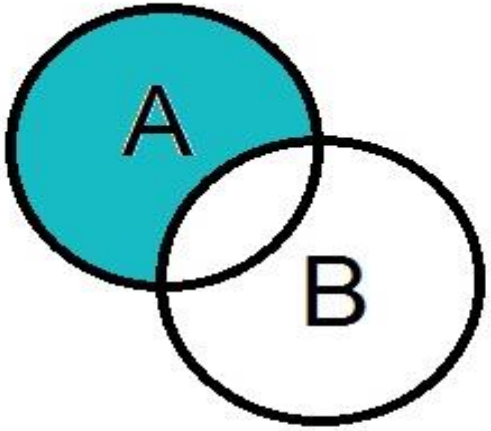
Used to combine different concepts:

IMPORTANT:

For a more effective search make an **OR** search for each column first, then combine the grouped results with **AND.**

	Climate change		Extinction		Frog
OR	Global warming		Endangered species		Toad
OR	Extreme weather		Habitat degradation		Amphibians
OR	Droughts		Population		Anura
=	CONCEPT A	**AND**	CONCEPT B	**AND**	CONCEPT C

NOT



A NOT B

Used to exclude words from a search:

For example if you wanted to exclude all the documents mentioning Toads, you would search: Frog **NOT** Toad

Warning :

Use **NOT** with caution, as you may discard documents that are relevant to your search just because you are excluding a particular word.

Search Techniques: Truncation

Consists in adding an asterisk or star after the **root** of a word

e.g. **endanger***

This will pick up all the possible endings of that word, in this example: **endanger, endangered, endangering.**

Warning : Be careful where to truncate, because you may obtain irrelevant results.

E.g. **end*** could bring up **ends, endurance, endoscopy** and many more.

Search Techniques: Phrase searching

Consists in adding including more than one word in quotation marks, for example: **“climate change”**

This will only pick up documents where all the words between the quotation marks appear in that exact order.

Warning :

Use phrase searching with caution as you may exclude relevant results just because the words do not appear as quoted – e.g. **change in climate**