

BOOLEAN SEARCHING FOR PUBLIC RECORDS

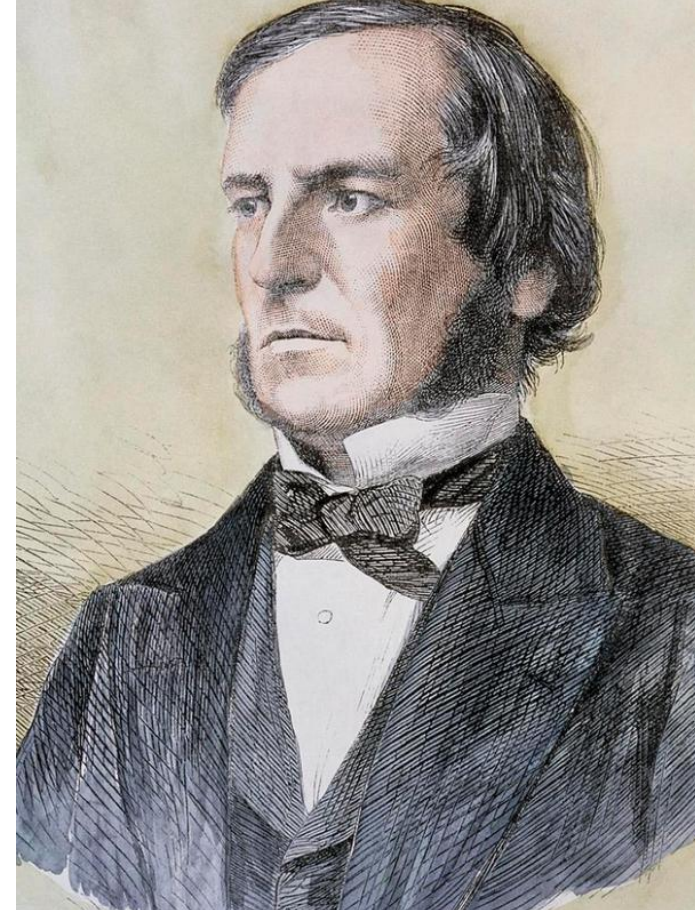


AGENDA

1. Intro to Boolean Logic
2. How to do a Boolean search
3. Strategies
4. Q&A

HISTORICAL BACKGROUND

- ❑ George Boole: English mathematician, philosopher, logician
- ❑ Taught mathematics at Queen's College in Cork, Ireland
- ❑ Author of *The Laws of Thought* (1854), which publicized Boolean logic.



HOW IT WORKS

- ❑ Boolean logic/algebra only recognizes two values:
 - ❑ *True* or *False*

- ❑ Logical operators:
 - ❑ Conjunction (And)
 - ❑ Disjunction (Or)
 - ❑ Negation (Not)

- ❑ Fundamental to information technology and programming

BOOLEAN VS. FUZZY LOGIC

Question: Is It Raining Outside?

Boolean Logic

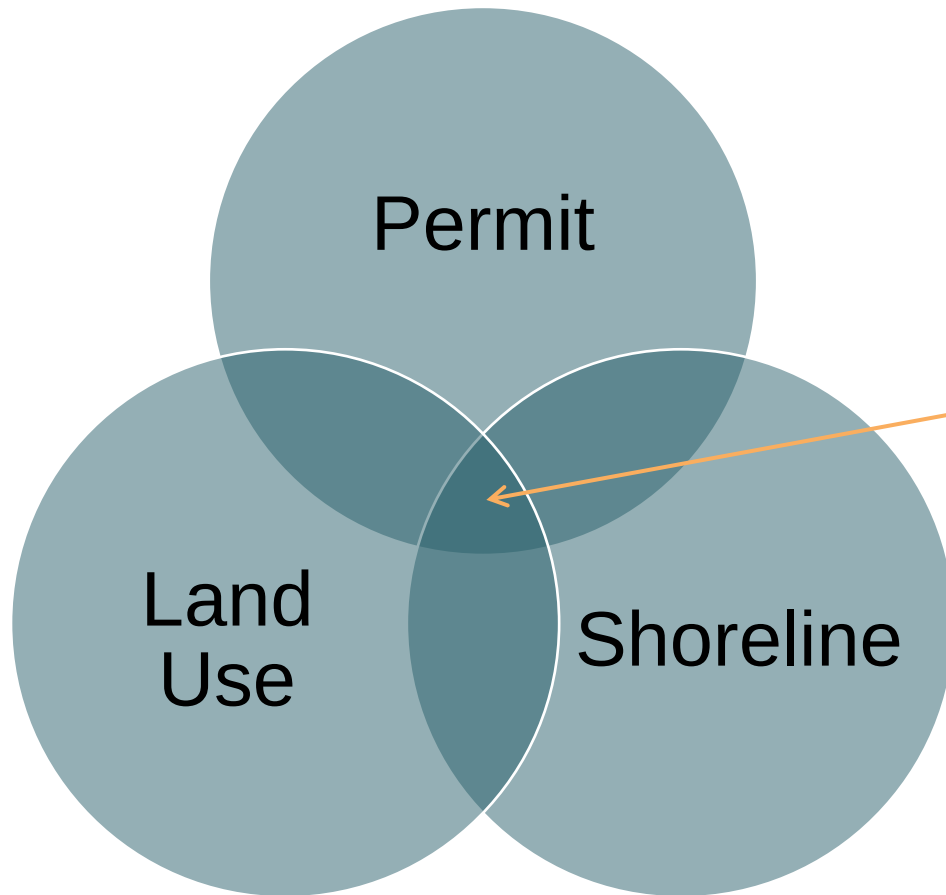
Yes *or* No

Fuzzy Logic

“Degrees of truth”

(Very little, somewhat, kind of,
fairly, very much, etc.)

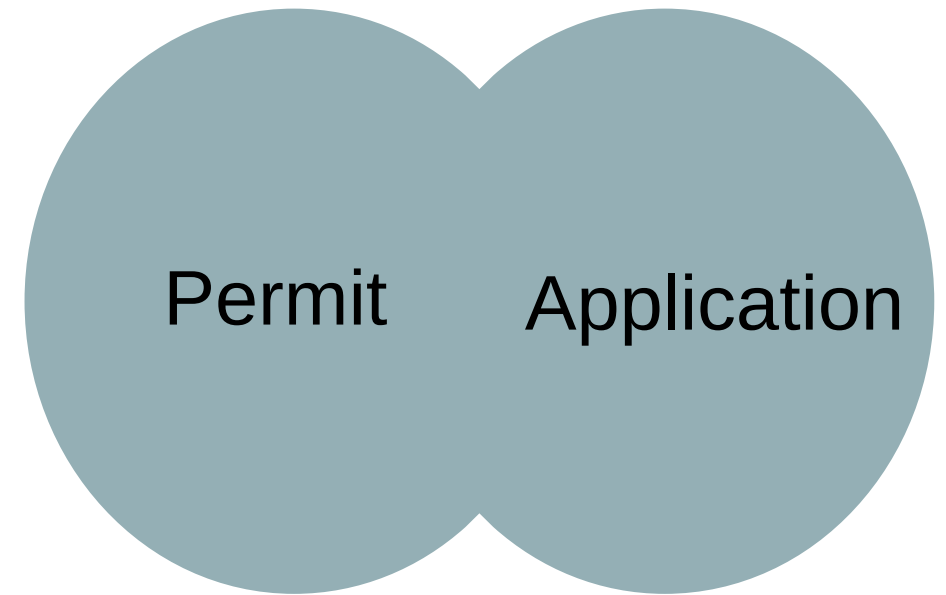
AND



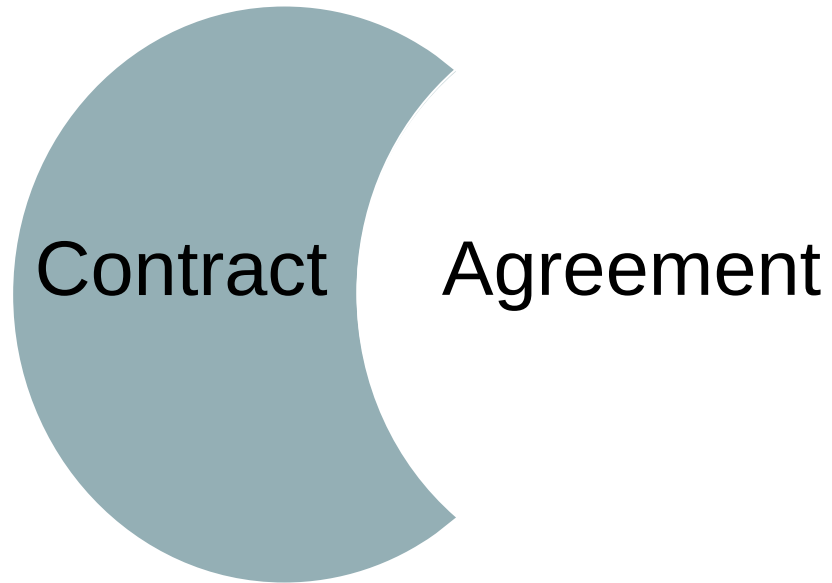
- ***And*** will include all terms in a search
- Search results have to include *all* the terms
- The more terms you include, the more specific the results

OR

- **Or** will bring search terms together
- The more terms you include, the broader your search will be



Not



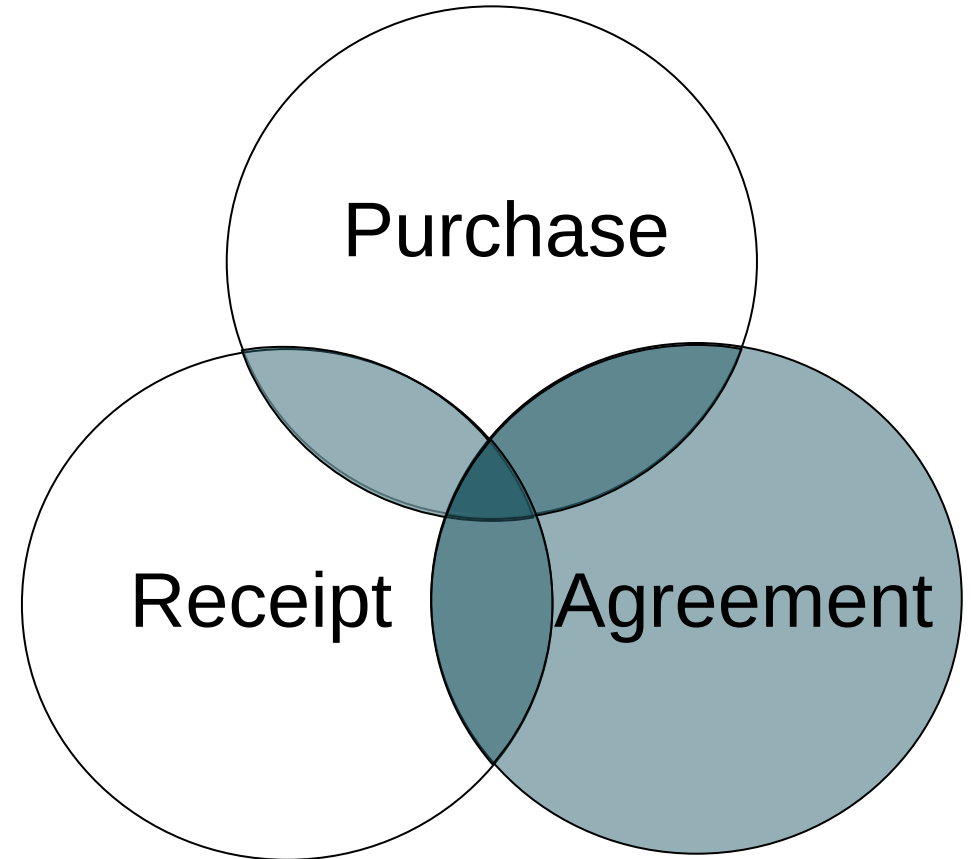
- ***Not*** will exclude terms from your search
- This leads to a more narrow search, but it could omit relevant results

NESTING BOOLEAN OPERATORS

❑ Combining ***And***, ***Or***, and ***Not*** can yield a variety of results

❑ For example, searching for:

Purchase **AND** Receipt **OR** Agreement would yield results that overlap in specific, narrow ways



ORDER OF OPERATIONS

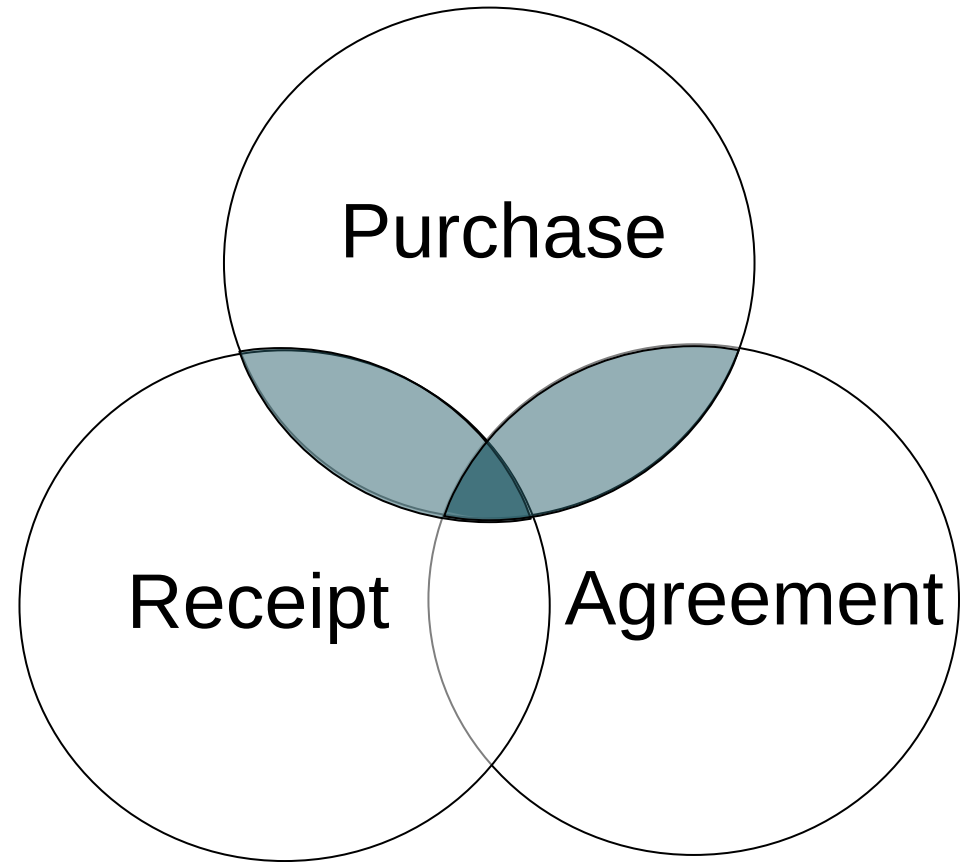


- ❑ Different systems will interpret Boolean operators in different ways
- ❑ Example: one system may prioritize **AND** while another system prioritizes **NOT**
- ❑ Other systems might read operators from left-to-right regardless of what word you use

PARENTHESES

☐ Parentheses can help tell the system how you want to search:

- ☐ Maintenance **AND** (Contract **OR** Log)
- ☐ Order **AND** (Work **NOT** Purchase)
- ☐ Purchase **AND** (Receipt **OR** Agreement)



TIPS AND TRICKS

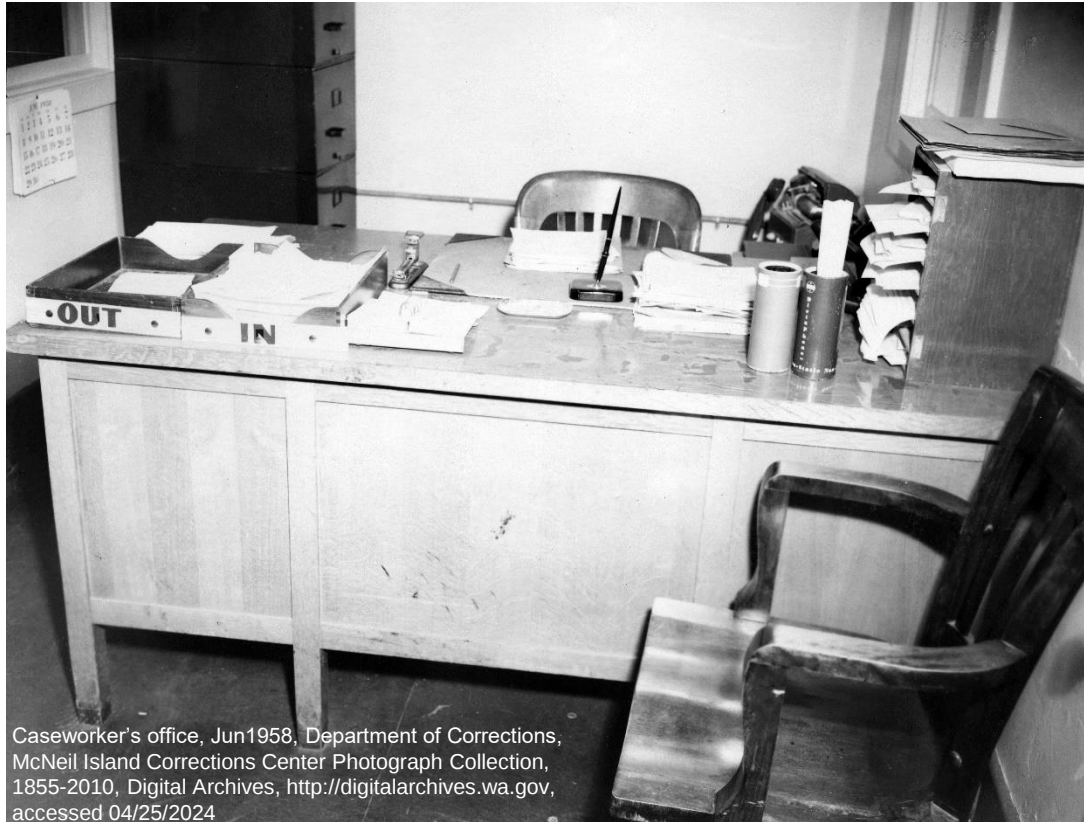
Exact Phrasing (“”)

- ❑ Putting a word or phrase in quotes mean search results have to match what is quoted
 - ❑ Example: council meeting vs. “council meeting”

Root Expander (! Or *)

- ❑ An exclamation point or asterisk at the end of a term can yield variations of a word/phrase
 - ❑ **Work!** would yield work, worked, working, worker, workers, worker’s...

BOOLEAN SEARCH AND RECORDS MANAGEMENT



Caseworker's office, Jun1958, Department of Corrections, McNeil Island Corrections Center Photograph Collection, 1855-2010, Digital Archives, <http://digitalarchives.wa.gov>, accessed 04/25/2024

- ☐ Boolean operators can help organize a search, but they cannot organize your records
- ☐ To make the most of a Boolean search, records should be inventoried and organized according to records management best practices

RECORDS INVENTORY

- ❑ Washington State Archives recommends local government agencies inventory records every **2 years**.
- ❑ Recommended inventory categories include:
 - ❑ Location of records (folder, shared drive, software platform, etc.)
 - ❑ Brief description
 - ❑ Date of creation
 - ❑ Quantity of records (gigabyte, terabyte, etc.)
 - ❑ Disposition Authority Numbers
 - ❑ Designations (archival, essential, etc.)
 - ❑ Confidentiality

SAMPLE BEST PRACTICES FOR ORGANIZING ELECTRONIC RECORDS

- ❑ Policies and procedures exist for records management
- ❑ Agency has tools available to manage and retain records
- ❑ Records have retention/back-up needs identified
- ❑ Electronic file names are consistent, logical, and predictable

BOOLEAN SEARCH AND RECORDS MANAGEMENT

❑ Depending on what system you use, Boolean search strategies will look at things like:

❑ Keywords

❑ Metadata

❑ Tags/labels

in order to find and pull together search results

KEYWORD CONSIDERATIONS

- ❑ Keywords can be found throughout a record and its metadata
- ❑ This can include things like:
 - ❑ Title
 - ❑ Subject
 - ❑ Author
 - ❑ Date Sent
 - ❑ Date Received



METADATA/LABEL CONSIDERATIONS

- ❑ Two broad metadata categories:
 - ❑ Technical metadata (time stamps, unique identifiers, etc.)
 - ❑ Descriptive metadata (subject, creator, labels, etc.)
- ❑ As with keywords/file names, metadata is a good way to capture or encode information about a record
- ❑ This can help make it discoverable through something like a Boolean search

SUMMARY

- ❑ Agencies can leverage Boolean searches to cut down on search times for records in an electronic system
- ❑ While robust and straightforward, Boolean searching is not a substitute for records management and organization
- ❑ Without those two in place, Boolean searches are not of much help for finding records in an electronic environment

QUESTIONS?



WASHINGTON
Secretary of State

Washington State Archives

THE RECORDS MANAGEMENT TEAM IS
HERE FOR YOU WITH FREE
CONSULTATION, **TRAINING**, & **ADVICE**.

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