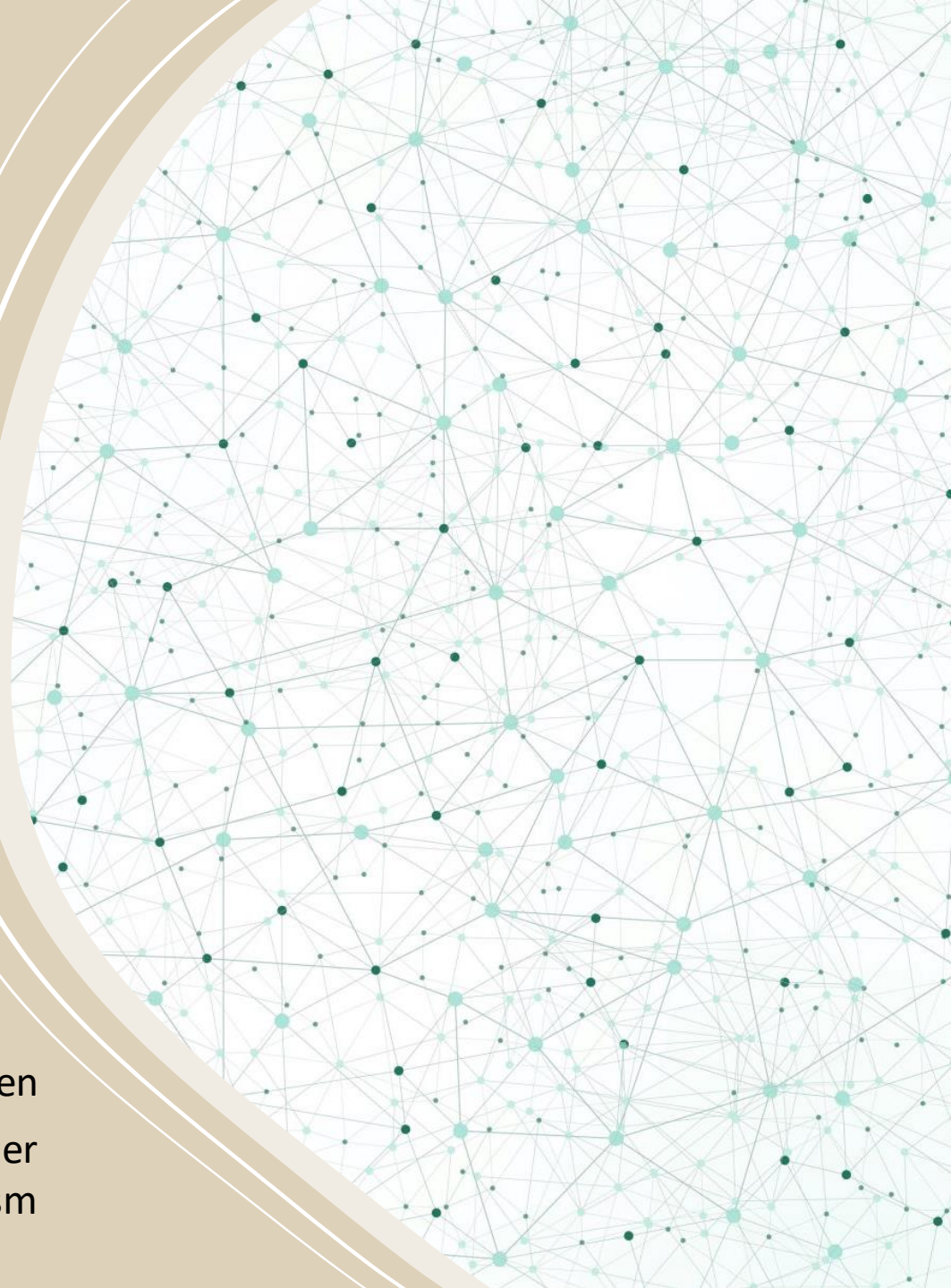


On an information quest:

Researching efficiently and credibly

Gerri Berendzen

Coordinator, Bremner Editing Center
University of Kansas School of Journalism



Gerri Berendzen

Gerri Berendzen has worked as a copy editor for more than 35 years and teaches editing, writing, information management and digital media at the University of Kansas School of Journalism and Mass Communications.

She has been focused on fact-checking research and teaching editing and information management since 2014, after three decades editing at newspapers.

She is one of the authors of Poynter.org's Fundamentals of Editing and wrote the Visual Verification online course.



Gerri Berendzen is coordinator of the Bremner Editing Center at the University of Kansas School of Journalism and Mass Communications.

Learning Objectives

1. Find ways to make your online information searches more efficient and effective.
2. Discover how to find data and information “hidden” from the normal browser.
3. Look at methods to determine if the information you found is credible AND if it's good enough to make you credible.

Why worry about how to do online research?

Whether you are fact-checking a book, looking up a claim while editing a news article or fact-finding for your own writing, you want to do digital research in a way that's efficient, comprehensive and credible.

- **Why: Because better search methods find better material.**
- **Why: Because you want to find material that is credible. Your credibility depends on it!**
- **Why: Because efficient research methods will save you time.**

Can an editor streamline fact-checking or research?

Yes, but ...

- There's no one online tool you can use to do all of the fact-checking for you, and no one tool for research.
- Tools can make your work easier, but you're still going to have to do a lot of the digging yourself.
- **BEWARE:** AI may not always give you credible information.

Can an editor streamline fact-checking or research?

- Use all the tools available ... but make sure to use tools that are credible.
- Everyone doing online research needs to verify the credibility of each source ... even when time is at a premium.

How to do effective online research

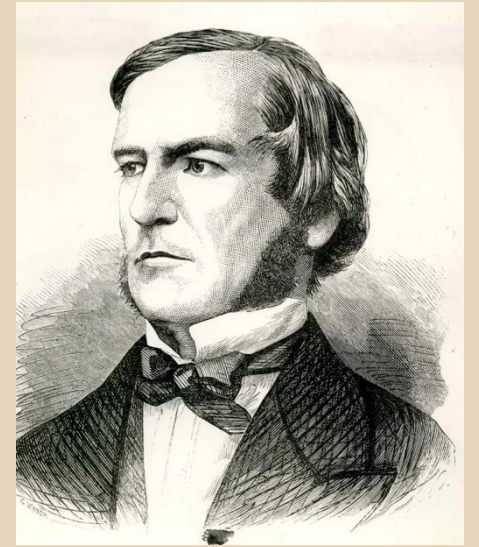
Questions:

- What is a Boolean search?
- What are search operators?
- How do search operators help?
- What is “lateral reading” and why do fact-checkers use it?



SEARCH OPERATORS

George Boole was a British mathematician whose work involved logic. Boolean logic is a theory of mathematics in which all variables are either “true” or “false,” or “on” or “off.” It’s the theory behind Boolean search.



There are 5 elements of syntax to Boolean search:

- **AND**
- **OR**
- **NOT**
- **()**
- **“ ”**

SAMPLE SEARCH OPERATORS

// //

OR

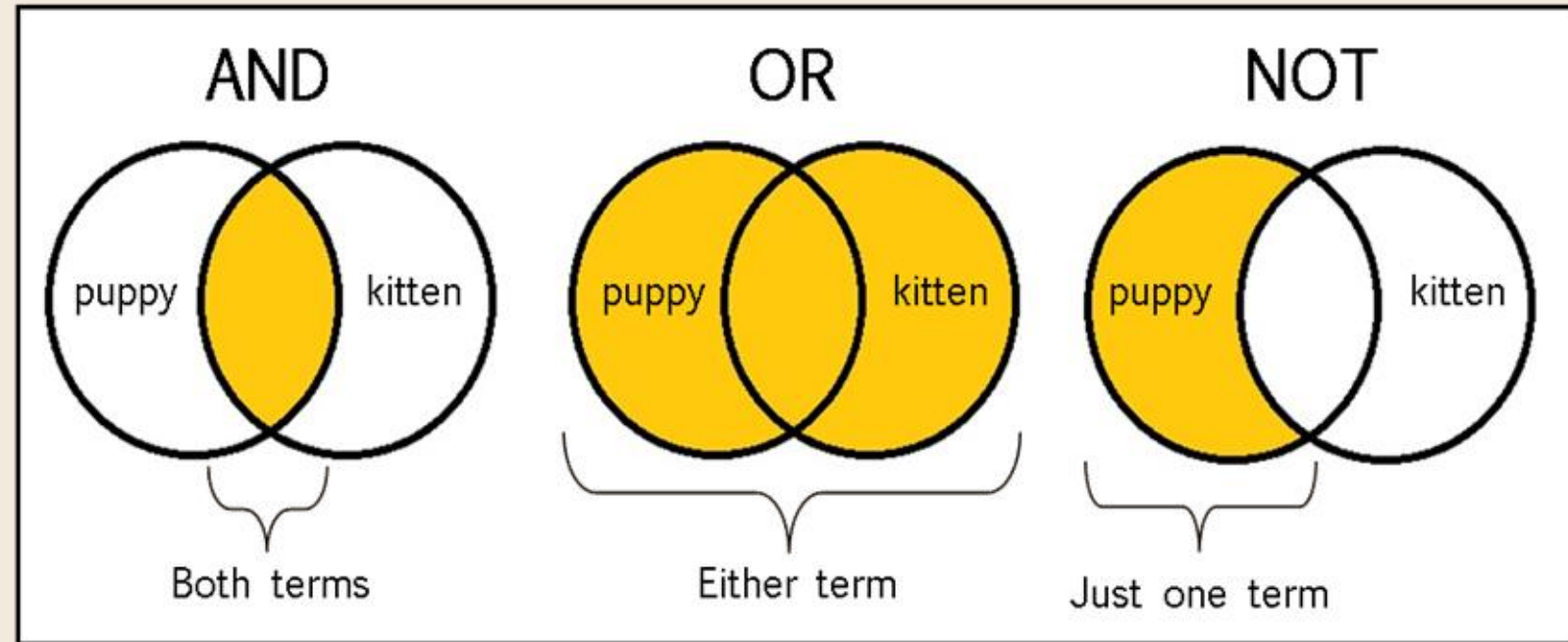
AND

NOT

- (minus)

filetype:

site:



The first several search operators are Boolean search:

❑ “search term”

Uses quotation marks. It forces an exact-match search. Use this to refine results for ambiguous searches, or to exclude synonyms when searching for single words.

Example: “steve jobs”

❑ AND

Search for X and Y. This will return only results related to both X and Y. Note: It doesn't matter for regular searches, as Google defaults to “AND” ... but it's useful when paired with other operators.

❑ OR

Search for X *or* Y. This will return results related to X or Y, or both. **Note:** The pipe (|) operator can also be used in place of “OR.”

Examples: jobs OR gates / jobs | gates

The first several search operators are Boolean search:

□ ()

Parentheses. Group multiple terms or search operators to control how the search is executed. Example: (MSNBC OR CNN) news This will find results that have either term in parentheses plus the word news.

□- (or NOT)

Minus sign. Exclude a term or phrase. In our example, any pages returned will be related to jobs but not Apple (the company or in this case, the fruit).

Example: jobs -apple

□ *

Asterisk. Acts as a wildcard and will match any word or phrase. Example: adam *
johanson

The next few narrow what parts of the internet the search will look at:

❑ filetype:

Restricts results to those of a certain filetype. E.g., PDF, DOCX, TXT, PPT, etc. Note:

Example: Kansas filetype:pdf / kansas ext:pdf (filetype: and ext: do the same thing.)

❑ site:

Limits results to those from a specific website or a specific web extension.

Example: site:ku.edu Example: site:gov

❑ intitle:

Find pages with a certain word (or words) in the title. In our example, any results containing the word “Kansas” in the title tag will be returned. Example: intitle:Kansas

These also narrow the parts the search will look at:

❑ **AROUND(X)**

Proximity search. Find pages containing two words or phrases within X words of each other. For this example, the words “apple” and “iphone” must be present and no further than four words apart.

Example: apple AROUND(4) iphone

❑ **BEFORE AND AFTER**

Let's you specify posting dates.

In search line type:

Search for results from before a particular date.

apple before:2007-06-29

after:

Search for results from after a particular date.

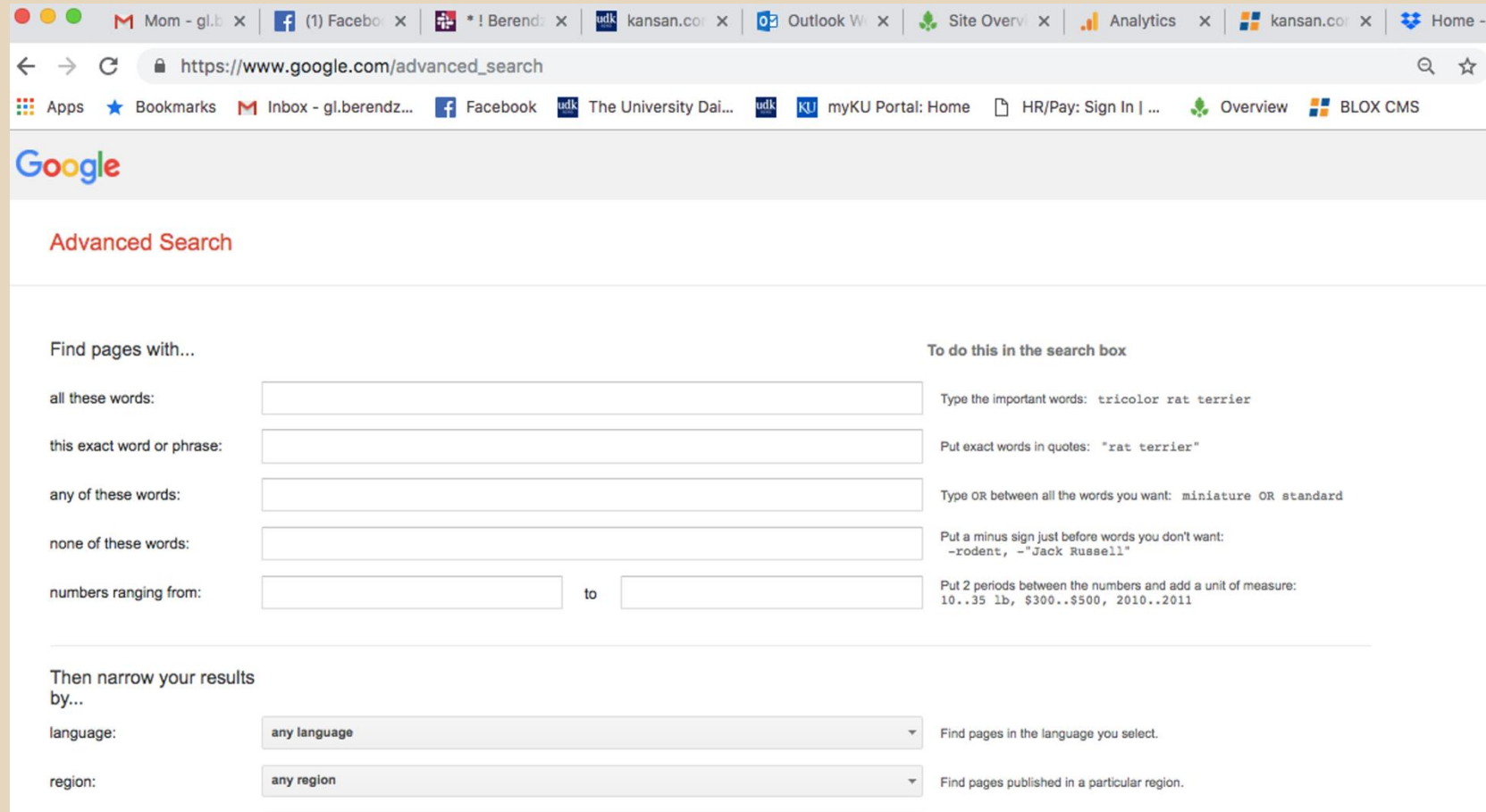
apple after:2007-06-29

CAVEATS

- Search operators that are words have to be in all caps (AND NOT OR).
- You need to figure out if a search portal supports Boolean search; browsers do, but not all databases use Boolean search.
- Make good use of the asterisk (*) to indicate a wild card. (Example, say you are searching for "Gerri Berendzen" but all the references to me include my middle initial. If you don't know what it is, use the asterisk. ("Gerri Berendzen" won't turn up any results. So try "Gerri * Berendzen").
- Manhthings on the web are misspelled. Those sites still may be helpful! So consider searching misspellings specifically.

STILL NOT FINDING WHAT YOU WANT?

Try Google's advanced search page. Or look for an advanced search on your preferred browser.



The screenshot shows a web browser window with multiple tabs open. The active tab is Google's Advanced Search page. The page has a header with the Google logo and the title "Advanced Search". Below the header, there are two main sections: "Find pages with..." and "Then narrow your results by...".

Find pages with...

Find pages with...	To do this in the search box
all these words:	Type the important words: tricolor rat terrier
this exact word or phrase:	Put exact words in quotes: "rat terrier"
any of these words:	Type OR between all the words you want: miniature OR standard
none of these words:	Put a minus sign just before words you don't want: -rodent, -"Jack Russell"
numbers ranging from:	Put 2 periods between the numbers and add a unit of measure: 10..35 lb, \$300..\$500, 2010..2011

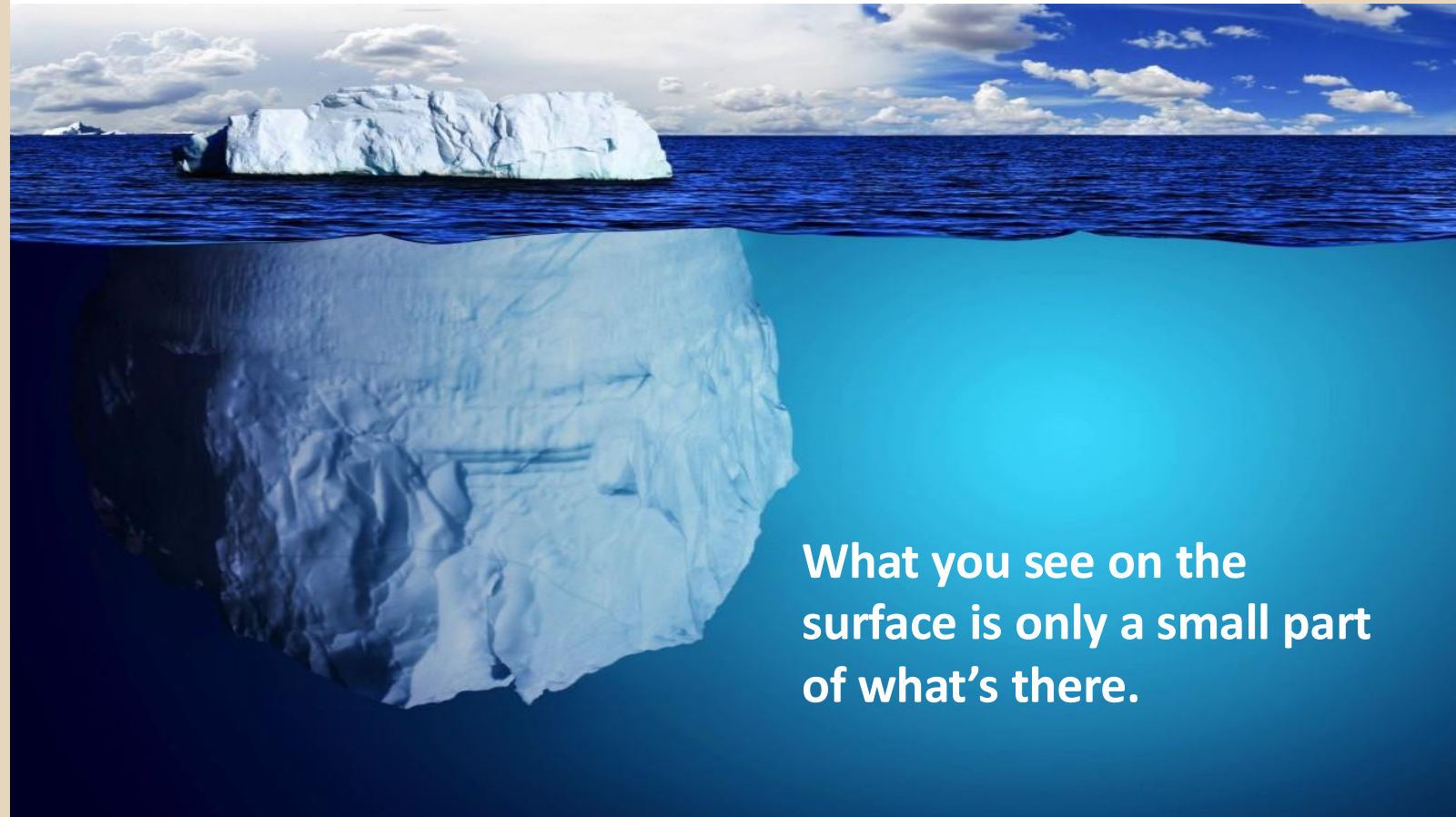
Then narrow your results by...

Narrow by...	Find pages in the language you select.
language: any language	Find pages in the language you select.
region: any region	Find pages published in a particular region.

This link shows Microsoft's advanced search keywords: <https://support.microsoft.com/en-us/topic/advanced-search-keywords-ea595928-5d63-4a0b-9c6b-0b>

**Behind the
surface of
your web
browser**


The internet is a bit like an iceberg



**What you see on the
surface is only a small part
of what's there.**


Surface Web

YAHOO!
Google
reddit
CNN.com
bing

- 
- Easy to search


Deep Web

Academic databases
Medical records
Financial records
Legal documents
Some scientific reports
Some government reports
Subscription only information
Some organization-specific repositories


- 
- Harder to search

Dark Web

TOR
Political protest
Drug trafficking
and other illegal activities

- 
- Potential danger

96%
of content on the
Web (estimated)

A stack of several papers and folders in shades of blue, grey, and cream, fanned out in the top-left corner of the slide. The background is a solid blue with a large, light-beige circular shape on the right side containing the text.

Behind the surface of your web browser

Databases on the web include things like:

- **State and local public records**
- **Scholarly content (journals, conference papers, etc.)**
- **News archives**
- **Images and video content**
- **Statistical data**
- **Court proceedings**
- **Marketing and consumer research**
- **Books**
- **Geographical information (maps, etc.)**

How to find databases?

Many databases are costly and will require you either to subscribe or access it through a subscriber:

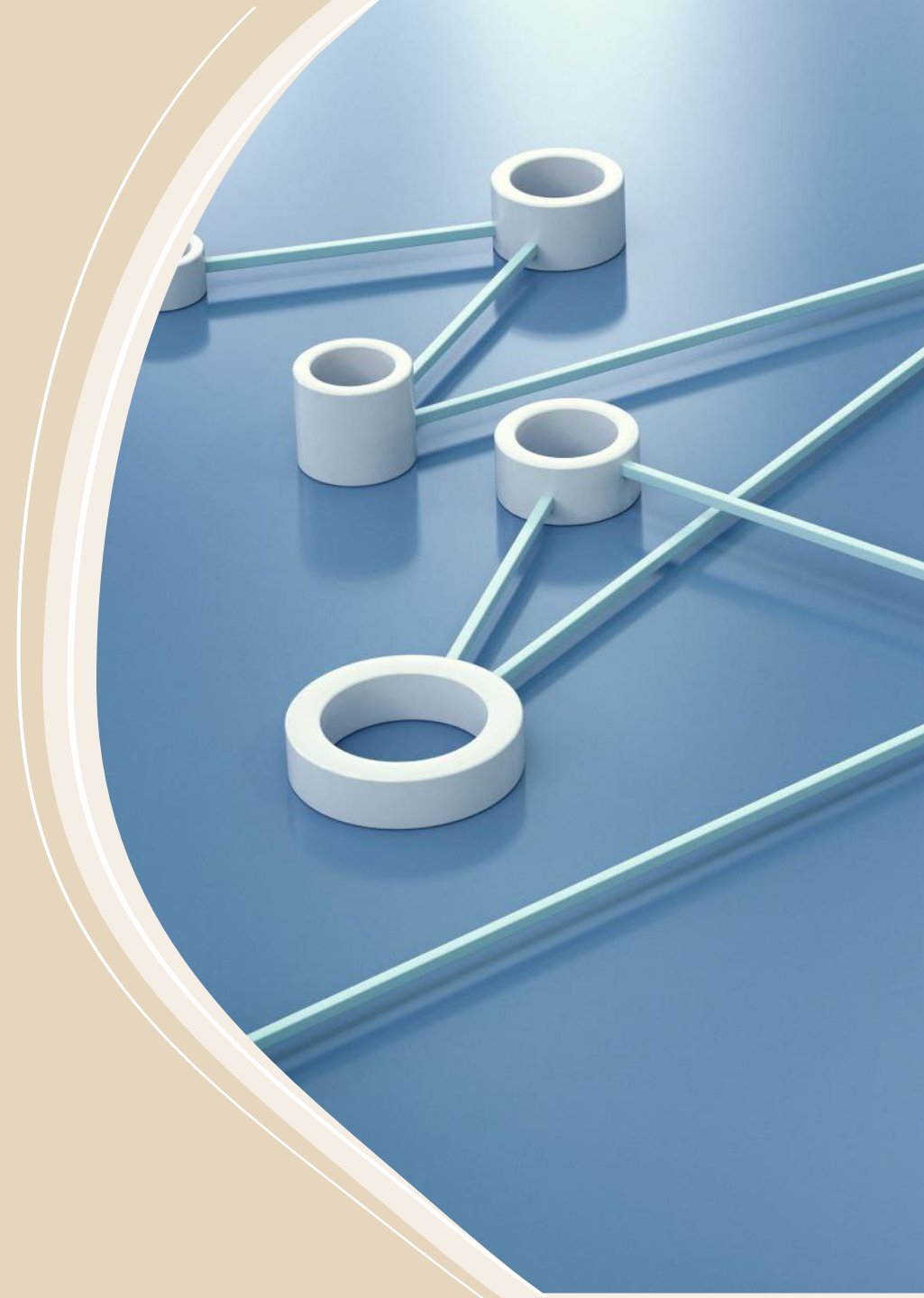
1. Try accessing the database through a public library.
2. Try a university library. Many allow visitors to register for a pass to use computers that have access to the university's database subscriptions.
3. Use tools like Unpaywall to find open access databases.
4. CAVEAT: government databases should be free; don't use websites that make you pay to get information like property records.



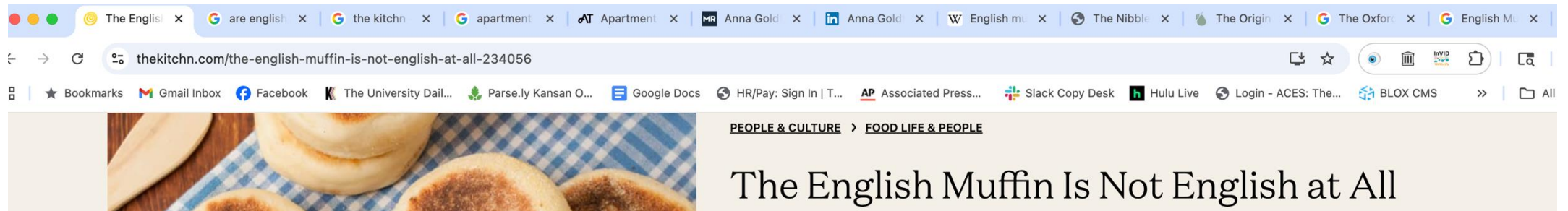
Accessing databases

How do I know if a database is available and how do I access it:

- 1. Start with a web search and use search operators to see if a database exists. (For instance: business license databases site:gov)**
- 2. Check with university and public libraries. On university library websites, the heading is often “Articles and Databases.” This won’t get you into the database, but it will show if one exists.**
- 3. Begin with broad terms and then narrow down.**
- 4. Try data.gov for federal government databases.**



WHAT IS LATERAL READING AND WHY DO IT?



It's a method of information evaluation on the web that is frequently used by fact-checkers.

It was developed by the Stanford History Education Group.

It has been proven to be more effective at efficient evaluation research than normal reading methods.

It involves almost immediately hopping off an unfamiliar website and then investigating that website by opening a series of tabs (like you see above).

How effective is lateral reading?

The usefulness of lateral reading was illustrated recently in a study from the [Stanford History Education Group](#) (SHEG). In this [study](#), Stanford researchers pitted professional fact checkers against Stanford undergraduates and historians with Ph.D.s. They gave each group the same article and a limited amount of time to figure out if the article was credible.

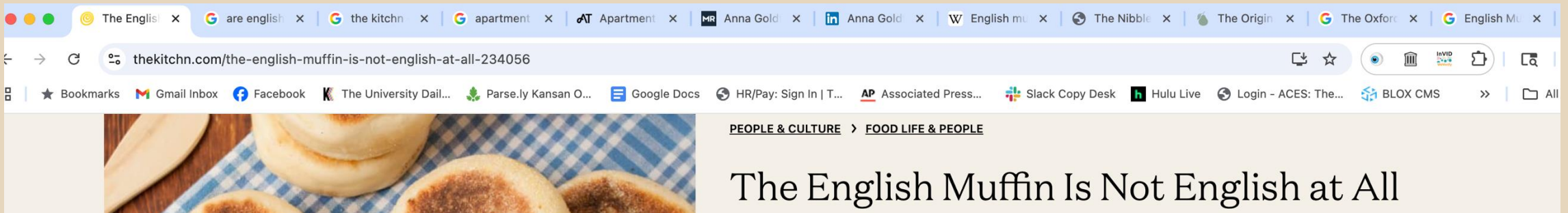
They found that fact checkers were always right when judging the validity of a piece. Surprisingly, though, the historians got it right about half the time, and undergraduates did not fare so well. Are you surprised that educated folks, undergraduates, like you, and professors, struggled? The Stanford researchers were a bit taken aback as well. But they figured out the difference in performance.

Fact-checkers all deployed a very similar technique for judging a news source, the Stanford group found. Historians and students spent a lot of time reading an article in order to assess its authority. Fact-checkers, on the other hand, spent as little as eight seconds looking at the article before moving on to researching it. Essentially, once fact-checkers identified a credibility cue, they immediately started researching it in other browser tabs.

The Stanford group called this “reading laterally.” Fact-checkers would see a name of an organization, for instance, and then pop open tabs in their browsers to find the organization’s website, Wikipedia entries and bibliographies about the organization, its staff, and its larger field. They also checked out what other news sources had to say about the topic.

From “Be Credible,” by Karna Younger and Peter Bobkowski

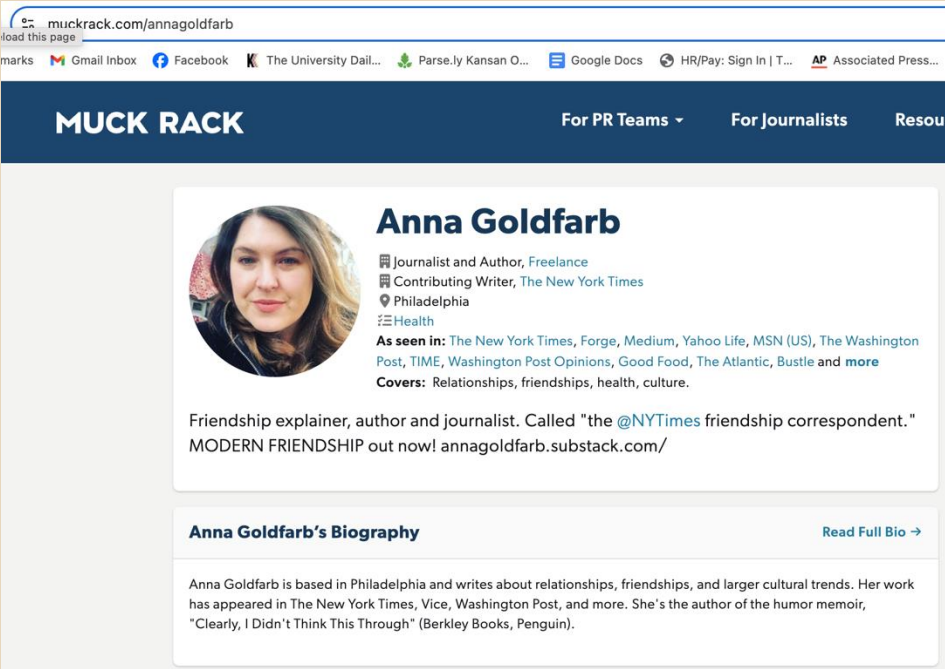
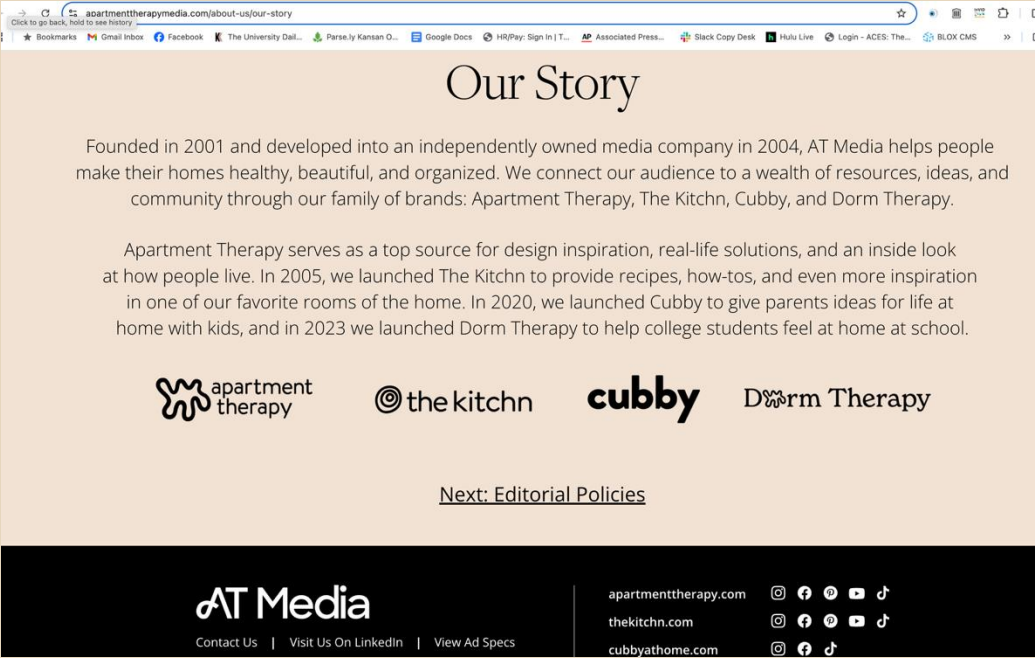
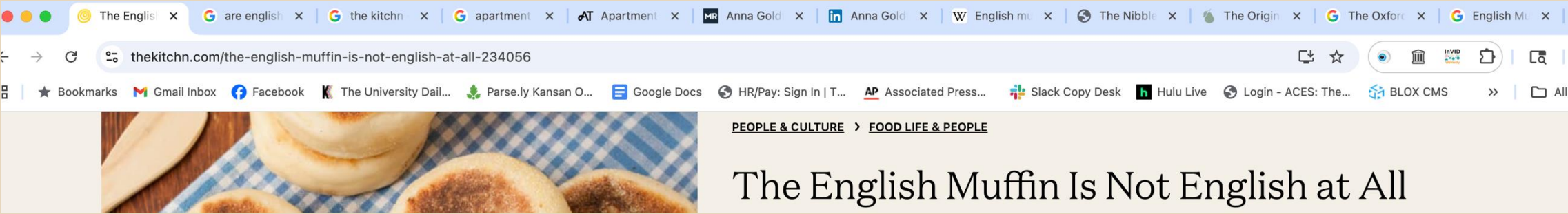
Quick example of lateral reading:



THE CLAIM: English muffins were invented in New York between 1874-1894.

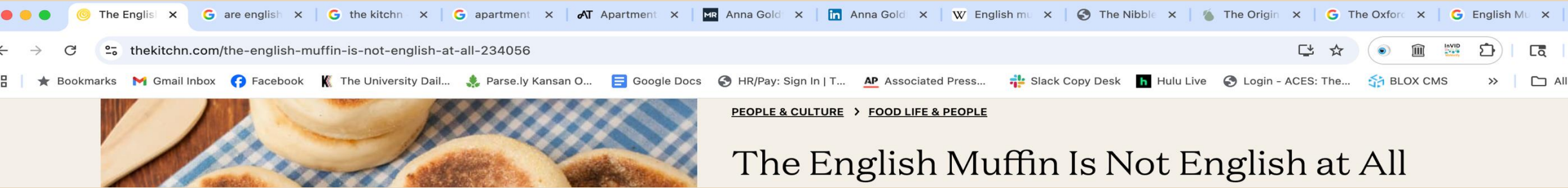


Quick example of lateral reading:



THE CLAIM: English muffins were invented in New York

Quick example of lateral reading:



English muffin

[Article](#)[Talk](#)

[Read](#)[Edit](#)[View history](#)[Tools](#)

From Wikipedia, the free encyclopedia

An **English muffin** is a small, round and flat **yeast**-leavened (sometimes **sourdough**) bread which is commonly 4 in (10 cm) round and 1.5 in (4 cm) tall. It is generally split horizontally and served **toasted**.^[2] In North America, Australia, New Zealand and the United Kingdom, it is frequently eaten with sweet or savoury toppings, such as butter, fruit jam, honey, eggs, sausage, bacon, or cheese. English muffins are an essential ingredient in **Eggs Benedict** and a variety of **breakfast sandwiches** derived from it, such as the **McMuffin**.


These products are called *English muffins* to distinguish them from the sweeter cupcake-shaped **quick breads** also known as **muffins**, although in the UK, English muffins are sometimes referred to simply as *muffins*^[3] or *breakfast muffins*.^[4] English muffins are available in a wide range of varieties, including **whole wheat**, **multigrain**, cinnamon raisin, **cranberry**, and apple cinnamon.

Origin

The word *muffin* is thought to come from the **Low German** *muffen*, meaning "little cakes".^[5] The *Oxford English Dictionary* also suggests a possible link to *Old French* *moflet*, a type of bread. Originally it meant "any of various kinds of bread or cake".^[6]

The first recorded use of the word *muffin* was in 1703,^[7] and recipes for muffins appear in British cookbooks as early as 1747 in *Hannah Glasse's The Art of Cookery*. The muffins are described by Glasse as being "little round cakes".^[8]

English muffin



A split and toasted English muffin

Alternative names	Breakfast muffin, muffin
Type	Leavened bread
Course	Breakfast
Place of origin	England ^[1]
Main ingredients	Wheat flour, butter, milk, sugar, salt, egg, yeast

[Media: English muffin](#)




ENGLISH MUFFINS

English muffins are flat, circular breads, about one inch high, usually made from flour, milk, butter, and yeast, and they are often dusted with cornmeal. The muffins are cooked on a griddle, sometimes with special English muffin rings. English muffins have a golden-brown top and a white middle so soft that the muffins are horizontally split with the fingers or a fork (not a knife). English muffins are toasted and can be spread with butter, jams, and jellies or used as a sandwich bread.

Some early muffin recipes produced what we now call “English” muffins. Hannah Glasse’s *The Art of Cookery Made Plain and Easy* (1747) contains a muffin recipe of flour, yeast, salt, and water.

The name “English muffin” has been cited in print since at least 1795 (“India and English muffins”), although these might have been misnamed crumpets. Recipes for “Muffins and English Muffins” were given in an 1851 cookbook. One of the earliest recipes for familiar “English muffins” is in De Witt’s *Connecticut Cook Book* (1871): “Mix two pounds of flour with two eggs, two ounces of butter melted in a pint of milk, and four or five spoonfuls of yeast; beat it thoroughly, and set it to rise two or three hours. Bake in muffin rings on a hot griddle.”

Samuel Bath Thomas (1855–1919) came to New York City from Plymouth, England, and opened a



ORGANIC GARDENING

HOMESTEADING & LIVESTOCK

REAL FOOD

DO IT YOURSELF

NATURAL HEALTH

SUSTAINABLE LIVING

EVENTS, VIDEOS & PODCASTS

What Are English Muffins Called in England?

This bread is called “English” in the United States to distinguish it from our American-style cake muffins. In England, the bread known simply as a “muffin” hasn’t really changed since Hannah Glasse published what may be the first recorded muffin recipe in her hugely popular 1747 cookbook, *The Art of Cookery Made Plain and Easy*.

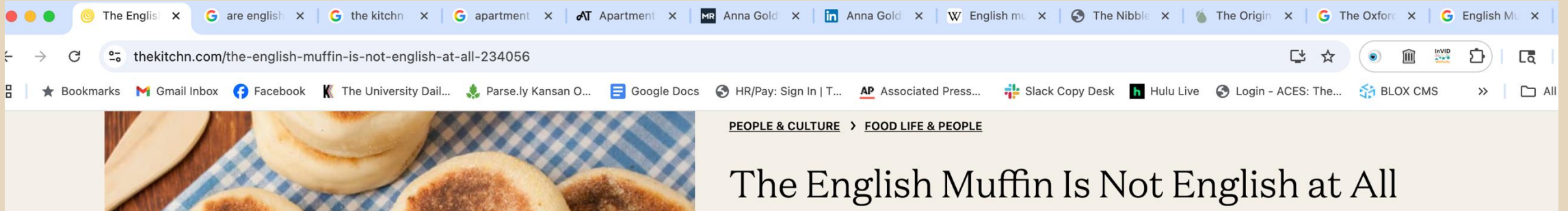
Do other websites agree with the claim?

Left: Wikipedia article on English muffins:

Center: Excerpt from the book “[The Oxford Encyclopedia of Food and Drink in America: 3-Volume Set](#)”

Right: Article from Mother Earth News

Quick example of lateral reading:



Don't be fooled by the AI overview.

Ask:

- What sources is AI using?
- Are those sources trustworthy?
- If there are multiple sources, do they link back to a common source?
- What do sources not listed by AI say?

AI Overview

No, English muffins are not actually English in origin but are a product of British expatriate Samuel Bath Thomas who developed them in New York City in the 1800s, though they have roots in traditional British griddle cakes. In England, they are simply called "muffins" and the term "English muffin" was likely coined by Thomas's company to differentiate them from sweet, quickbread muffins that are common in the U.S.


The American Origin

Samuel Bath Thomas:
An English immigrant, Samuel Bath Thomas, moved to New York City and created a version of the traditional British muffin, which became known as the English muffin.

Advertising and Branding:
The name "English muffin" was likely used to distinguish these yeast-leavened, griddle-cooked breads from the chemically leavened, sweet muffins that are more common in America.

What They're Called in England

Just "Muffins":
In England, the bread that Americans call an "English muffin" is simply known as a "muffin".



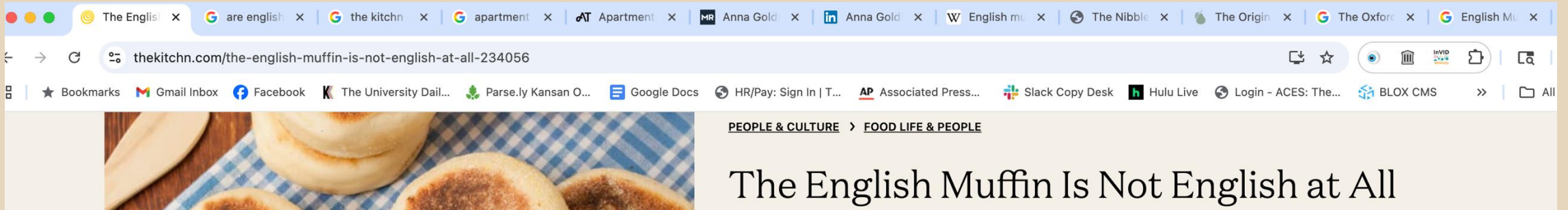
English muffin - Wikipedia
"Mush muffins (called slipperdowns in New England) were a Colonial...
Wikipedia, the free encyclopedia

The Truth About English Muffins... They're NOT Crumpets, NOT fro...
Mar 30, 2025 — for if you live in the United States just to the south of me...
YouTube · Glen And Friends Cooking

The Origin of English Muffins | The Table by Harry & David
Apr 1, 2025 — The Origin of English Muffins: How English Are They? The...
Harry & David

TIL English Muffins are known simply as muffins in the UK and long ...
Feb 3, 2021 — TIL English Muffins are known simply as

An aside:



THE COMMENTS ON THIS STORY ARE WORTH READING!

G

GoldCloud

12 February, 2022

Are you crazy? Where the hell did you get that nonsenses? The Art of Cookery Made Plain and Easy (16th century) Chapter 17: Of Made Wines, Brewing, French Bread, Muffins, &c. Is this some kind of comic blog?

Reply · 👍 17 · Share

F

foracle8194

5 September, 2016

I think you needed to read the source material more carefully. Muffins have existed for centuries in Britain, hence the old nursery rhyme 'Have You Seen the Muffin Man?' Thomas just introduced them in the US.

Reply · 👍 10 · Share

U

user8915418

23 June, 2023

absolute nonsense

Reply · 👍 · Share

G

GreenPlanet

7 September, 2016

Love all the comments. I learned more from the comments than from the article! Thank you, internet! <3

Reply · 👍 11 · Share

Evaluating website credibility

CRAAP method:

It's a simple checklist that focuses on 5 things ...

- currency
- relevance
- authority
- accuracy
- purpose

Evaluating website credibility

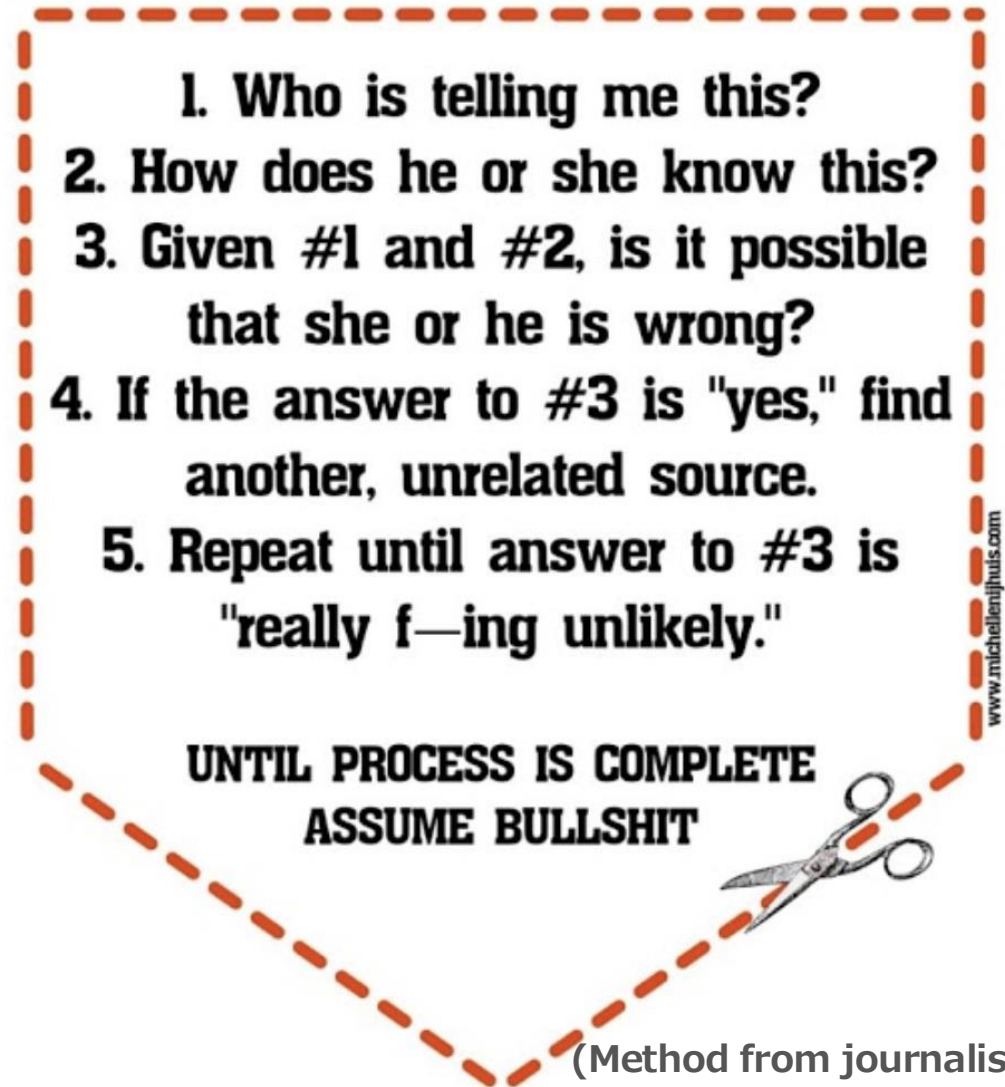
The Four Moves



Method taught by Mike Caulfield; read more here:
<https://hapgood.us/2019/06/19/sift-the-four-moves/>

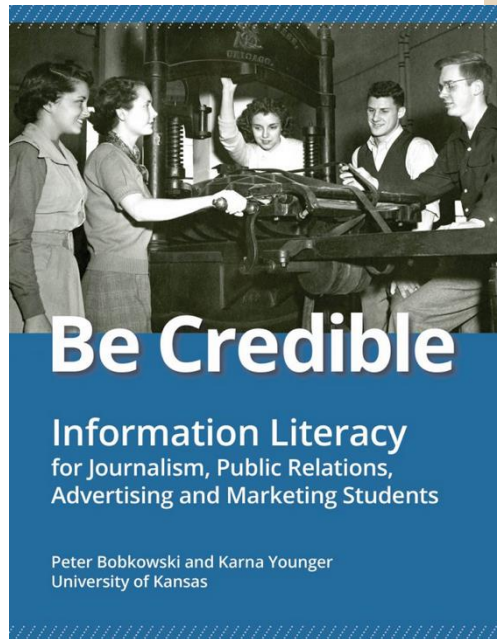
Evaluating website credibility

Brooke Borel notes another method in her book
“The Chicago Guide to Fact-Checking”



(Method from journalist Michelle Nijhuis)

Evaluating website credibility



Credibility Cues method

(from the book “Be Credible” by Peter Bobkowski and Karna Young)

The cues:

1. Publisher and Author: Who are they? What's their credibility record?
2. Content: What is the substance? Is it biased?
3. Writing style: Does it match what you expect?
4. Sources used: Are they credible?
5. Date: When was it published?
6. Images: Are they trustworthy? Stock?
7. Ads: Do they tell you anything?

Here's a link to the book: <https://opentext.ku.edu/becredible/>

Evaluating website credibility

Credibility Cues method

(from the book “Be Credible” by Peter Bobkowski and Karna Young)

What should you do with Credibility Cues?

- Identify each cue available.
- Examine each cue and collect evidence about it.
- Decide whether each cue contributes to or detracts from the overall credibility of the source.
- Provide an overall credibility assessment for the source.

Evaluating website credibility

Other things to check, regardless of the method used:

- Is the source primary, secondary or tertiary? (Always look for primary sources.)
- Can you independently verify the fact with more than one source? (This is especially true if the source isn't primary.)
- Are your two sources connected? (Connected sources can easily both be wrong. So using unconnected sources makes the information more reliable.)

Want to know more or to use some of my material?
You can contact me at gberendzen@ku.edu
Or check out past presentation on gberendzen.com

**Any
questions?**

