# Fact-Checking 101



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http://shipseducation.net/misinfo



You encounter a webpage about sugar consumption in Latin American countries. Should you believe it? You could use conventional "critical thinking" skills — analyzing the argument and the evidence



Blakeslee, Sarah (2004). The CRAAP test. LOEX Quarterly. 31 (3).



# That's how most people approach the problem.

### They read vertically.

They:

- consider the overall impression
- check the URL (.org, .com ?)
- check the Author's byline
- consult the "About" page
- read the claims & identify the evidence and the reasoning

But such analysis will **not** tell you **who** is behind these claims —or **why**.



- How might they want to **mislead** you?
- Do they have a **conflict of interest**?

### For a more effective method, do what professional fact-checkers do: *First*:



- Do you even know what you are looking at?
- Why dive into something deeply before even knowing what it is?

## **Step 2. Investigate the source.**

Publications - The 100 Percen... × G heartland institute reviews, f... × +

HEARTLAND

INSTITUTE



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Menu







Do not just follow the first result. Exercise *click restraint*.

Review your search results and choose the most informative links mindfully.

SLOW

# Information Ahead



### Investigate:

- Is there a track record of honesty?
- Any bias from conflict of interest?
- Objective, neutral, balanced?

Is the source credible?

Practice *critical ignoring*.



#### Lateral reading reduces the time needed to identify a source's credibility.



from Wineburg & McGrew, (2019). Lateral reading: Reading less and learning more when evaluating digital information. *Teachers College Record*, 121(#11), https://www.tcrecord.org/?contentid=22806

## **Continue the fact-checkers' routine:**

## Step 3. *Find other coverage.* Step 4. *Trace the claims to their origin.*



2 ways to confirm facts

#### But...

scientific claims are a special challenge.
You do not want *just* to confirm an event or quote or find one isolated study or sample one expert opinion.
You want to know if the claims are reliable — *vetted by a community of experts*.

Your target benchmark is thus the consensus of the relevant experts





## Next ask:

- Does the source have the relevant credentials or experience ?
- A history of quality work?
- Recognition by peers? Awards?

Is there relevant expertise?





# What is the consensus?

- Do the experts agree?
- What uncertainty remains?
- Where is there disagreement, and why?





# The SIFT Method\*

- 1. **S**TOP.
- 2. Investigate the source.
- 3. Find other coverage.
- 4. Trace the claim to its origin.



#### REVIEW

A fast-and-frugal decision tree for scientific claims\*



#### Take your bearings. Who has made this claim and why?



## credible?

Is there a track record of honesty? Free of conflict of interest? Objective, neutral, unbiased?

TRUSTWORTHY

Is there relevant UNTRUSTWORTHY

expertise? Does the source have NON-EXPERT

credentials or experience? A history of quality work? Recognition by peers? Awards?



Do the experts agree? What uncertainty remains?



EXPERT What is the consensus?

YES

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\*Allchin, "Marginalizing Misinformation – the Fast and Frugal Way. The Science Teacher (2023)



# Misinformation problem – solved!!

# Solved ... Almost!

CAUTION

 What will motivate you to STOP & fact-check?

Will you **notice** when you need to find the consensus?

• Do you know where to find it?

Beyond fact-checking skills,



we should understand:

- how scientific
  - consensus forms
- the social structure of trust in knowing
- basics of credibility
- nature of expertise
- media transparency
- deceptive tactics
- search biases

# Fact-Checking 101



Review: • What have you learned?• What do you have yet to learn?