



**Critical evaluation on the Internet:  
What's missing in the text?  
What's missing in our instruction?**

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**So, where are we headed?**

- Review findings from recent research about how readers respond to different aspects of critical evaluation prompted by Internet texts and tasks
- Pair up challenges with strategy lessons
  - Evaluating relevancy
  - Evaluating accuracy
  - Evaluating reliability
  - Evaluating bias/point of view
- What does this mean for our students?



**Population**

- 109 7th grade students, Northeastern USA
- Stratified random sample from large convenience sample of 5 school districts
- ERG Levels C-I (possible A-I)
- Standardized Reading Achievement (possible 100-400) Mean=255 Low=116.....High=400

**Defining aspects of critical evaluation**

- **Relevancy:** the information's level of importance to a particular reading purpose or stated information need
- **Accuracy:** the extent to which information contains factual and updated details that can be verified by consulting alternative and/or primary sources
- **Reliability:** the information's level of trustworthiness based on information about the author and the publishing body [*most and least* reliable]
- **Commercial bias:** the extent to which information appeared to be influenced by commercial interests for or against a certain product.

**Evaluating Accuracy of Online Information**

Total N=109

Only 20% have strategies for evaluating accuracy

3 = .02% N=2	I checked this information with www. ____ .com and they compared similarly. [checked with 2nd reliable source]
2 = 19% N=21	I know this is accurate because I learned it in science class. [compared with prior knowledge]
1 = 26% N=28	I know this is accurate because it's made by a corporation and there is a place to contact them. [implicit trust]
0 = 54% N=58	It seems right but you can never know; The website I think is always right; It had plenty of pictures; I checked it out with Ask Jeeves; Why would they lie? [misconceptions]

80% do not know how to evaluate accuracy or did not locate the page.

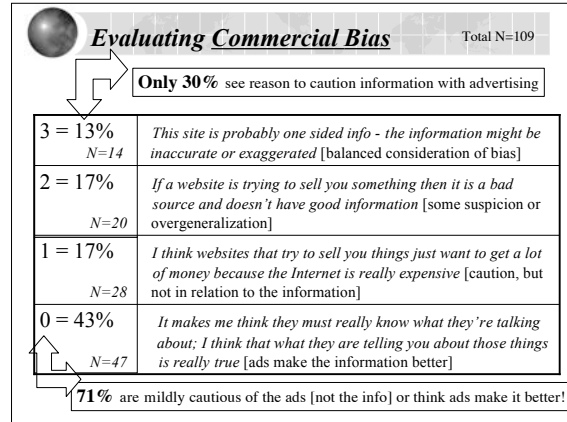
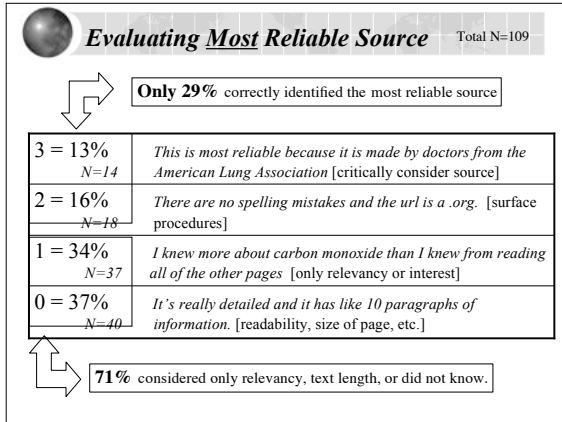
**Evaluating Least Reliable Source**

Total N=109

Only 32% correctly identified the least reliable source

3 = 14% N=15	There are a lot of misspellings, there is no way to contact the people who put out this site, and it's a .com compared to a .org or .gov [at least one critical attempt]
2 = 18% N=20	It's a .com and they are trying to sell you something at the very top of the page. [surface procedures]
1 = 21% N=23	It doesn't really talk about anything specific - there's not a lot of information about the topic [only relevancy or interest]
0 = 47% N=51	This is the least reliable source because the text is a little confusing to read. [readability, size of page, etc.]

68% considered only relevancy or interest or did not know.


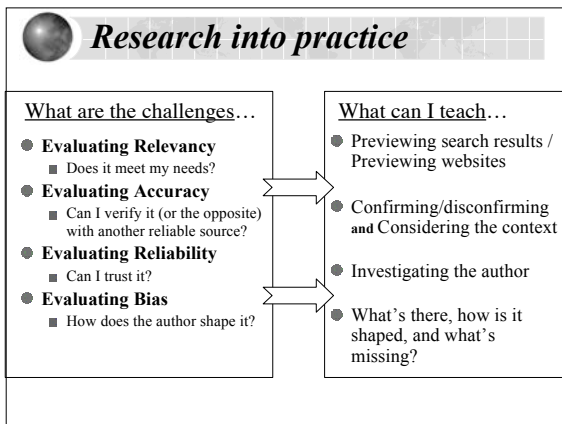


### Overall, findings suggest...

- Only **20-32%** of these 7th graders (N=109) had at least one effective strategy for evaluating accuracy, reliability, and potential bias of online information
- That means **68-80%** of students either did not have effective strategies for evaluating online information (35-45%) or could not even locate the information in the first place (33-35%).

### Critically Evaluating Information

- Evaluating understanding:** Does it make sense to me?
- Evaluating relevancy:** Does it meet my needs?
- Evaluating accuracy:** Can I verify it with another reliable source?
- Evaluating reliability:** Can I trust it?
- Evaluating bias:** How does the author shape it?
- Evaluating choice:** Which one is best and why?





### Evaluating Relevancy

**Learning Objective:**

#### Previewing search results

- What clues do the words after the link give me?
- Are the results in any special order?
- Who sponsors the site?
- What's missing from this list?
- How do you know and Why does it matter?



### Evaluating relevancy

*Where do I read first?*

**Learning Objective:**

#### 1 Previewing a website

- STOP and THINK!
- Preview left menu and top menu bars
- Anticipate where each link will lead
- Anticipate multiple levels (closer or further)
- Explore interactive mouseover functions
- Note the author/webmaster
- Understand website search features

2

3

### Evaluating Accuracy

- STOP and THINK!
- Cross check factual data with at least three other sources
- Ask probing questions:
  - What claims is the author making?
  - What evidence do I find elsewhere to support those claims?
  - What evidence do I find elsewhere to refute those claims?
- Consider the context of where you find the evidence
- The challenge of confirming vs. disconfirming

-- Adapted from *IMSA 21st Century Information Fluency Project (2007)*

### Students know you can't believe everything on the Internet...but they do!



### Internet Reciprocal Teaching

#### Internet Reciprocal Teaching Strategies for Critically Evaluating Websites

Come up with as many strategies as you can for determining whether the sites you were assigned are valid and reliable sources of information for a school project.

*Download Student Worksheet*

Think about all the ways possible to verify the accuracy of your Internet sites. List your strategies, try them out, and present them to the class.

**Predict:** Do you think your site is a reliable source of information?

**Question:** How do you know that a website has accurate information?

**Clarify:** How do you go about checking on the validity of websites?

**Summarize:** Which strategies were most useful? Which were not?

### Evaluating Reliability

- Moving beyond surface level checks (e.g., I can email the author; glance at the web address)
- Actively investigate the authority of the author within the website
- Consider other work from the author
- Does it pass Snopes.com ?
- THINK and CHECK activity
  - California's Velcro Crop Under Challenge

### Think & Check Activity

THINK		CHECK
Does this <i>sound</i> like it makes sense?	➡	Be skeptical and ask around
Where else can I look?	➡	Conduct an Internet search using keywords from the topic in quotation marks or look in a book
Who created the website and for what purpose? Who is the author?	➡	Explore the About Us link with a critical eye
Who is linking to the site?	➡	Do an Internet search using the author's name in quotation marks
	➡	Type Link URL (of the webpage in question) into the search box

### Scrolling for "About Us" .. and then ??

The screenshot shows a news website with a main article titled "Armed and dangerous - Flipper the firing dolphin let loose by Katrina" and several smaller articles on the left. A red arrow points from the "About Us" link in the top navigation bar to the main article.

### Evaluating Bias/Point of View

- Dealing with advertising
- Anticipating bias in search results
  - Which links appear first in the list?
  - Which links are missing?
- Recognizing hidden agendas
  - What are their motives?
  - Who is their audience? Who might they offend?
- Considering multiple perspectives

### How do we deal with advertising?

- ☛ Don't just avoid it; teach students how to recognize it and to sort out the learning.
- Discuss the homepage layout of various commercial/educational sites...
  - Is the site "balanced"? What are their motives?
  - Where are the sales pitches hidden?
  - How does the organization's "bias" influence what they put on their website and where they link to?

### Recognizing hidden agendas

First: Explore the three links below to learn more about what different people think about how Iditarod mushers treat their sled dogs.

Level 1: Detecting Fact Vs. Opinion

A. Ray Redington's Dog Care for the Iditarod Musher  
 B. Racing for the Grave: The Iditarod's Trail of Dog Deaths  
 C. Is the Iditarod for the Dogs?

1. In the box below, post the address of the site you think has the STRONGEST opinions about the use of sled dogs in the Iditarod.
2. Tell whether you think the author of this site is for or against competitively racing sled dogs.
3. Select a quote and explain how it is an example of how the author shares his/her strong opinions.

Level 2: Detecting Bias & Considering the Author

Second:

4. In the box below, post the address of the site (A, B, or C) you think gives both sides of the issue about the treatment of Iditarod sled dogs?
5. Who are the two people whose opinions are given in this article?
6. What do you think would make each person have that opinion?

### Challenge: Put it all together!

Considering accuracy, reliability, and bias all at once...

For homework, you have been asked to use the Internet to gather information about a topic you're studying at school:

a. an upcoming holiday    b. your favorite sport

### Central Ideas

- The Internet requires a range of evaluation strategies that are critical to success as an online reader.
- ☛ We should be paying attention.
- ☛ We should be thinking of how best to prepare students to read, think, question, and critique the information they encounter online.

## Comments and Questions?