



LEARNING MODULES

GK-12 DISSECT at New Mexico State University

Title: Internet Source Reliability

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Discipline or Area:

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School: Onate High School

Subject of class: English Literature

Grade: 12

COVERAGE OF COMPUTATIONAL TOPICS

This module was designed to introduce students to a specific algorithm for evaluating sources on the Internet.

OBJECTIVES

Students will learn how to apply an algorithm to evaluate Internet sources and understand that the Internet is full of information that is not all trustworthy.

EQUIPMENT AND MATERIALS

N/A

BACKGROUND AND REFERENCES

It is imperative that graduating high school students understand how to find reliable evidence to support their claim when writing an essay. This module uses the CRAAP test, which was created by the Meriam Library at California State University (http://www.csuchico.edu/lins/handouts/eval_websites.pdf), to give students an algorithm to determine whether or not a source is credible or not.

PROCEDURE

Detailed instructions on how this module is taught.

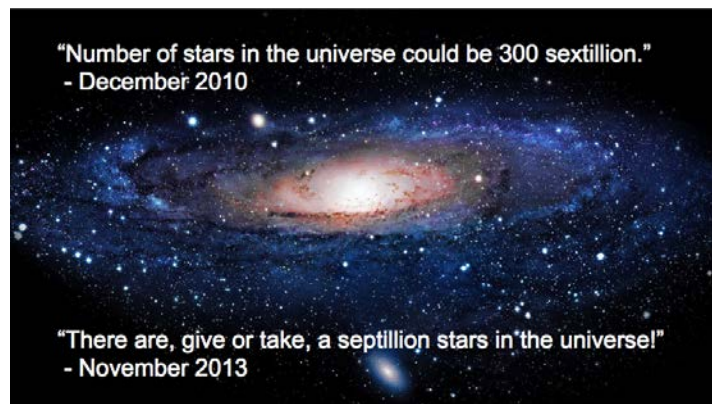
CRAAP is an acronym for a test that centers around five major criteria to determine the reliability of an Internet source:

1. C – currency: the timeliness of the information
2. R – relevance: the importance of the information for your needs
3. A – authority: the source or author of the information
4. A – accuracy: the truthfulness and correctness of the content
5. P – purpose: the reason that the information exists

The following sections detail the discussion and visual examples that were used to present the module.

Currency

First a picture of the universe was shown with text that was cited from December 2010, “number of stars in the universe could be 300 sextillion”. All students agreed that 300 sextillion stars sounded reasonable. Then they were shown a more recent estimate that was cited in November 2013: “there are, give or take, a septillion stars in the universe”.



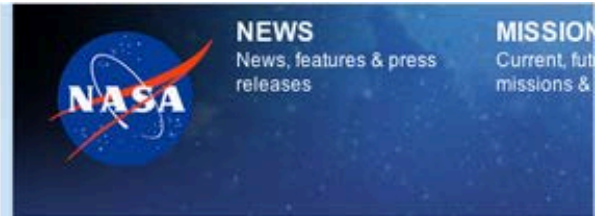
This example proved that the most current information is the better choice; if they had cited the first source, they would have been wrong by 700 sextillion stars!

Relevance

The relevance of the information the source contains is also important. The students were instructed to think about who is the intended audience, whether or not the information / source is at an

appropriate level, if a variety of sources have been consulted, and whether or not they are comfortable citing the particular source. Students were presented with three simple scenarios:

Scenario 1 - "If you had to write a research paper in college about the planets in our solar system, which site, kids.gov or nasa.gov, would you add as a reference?"



Scenario 2 – "If Wikipedia stated that the NGC 4414 spiral galaxy is 56,000 light-years wide, would you trust the source or continue searching to confirm the number?"



<http://en.wikipedia.org/wiki/Astrophysics>

Scenario 3 – "The site, lingscars.com, has been ranked as one of the top 5 worst websites in the world. Would you be comfortable citing this source if you were searching for information about car leasing?"



<http://www.lingscars.com/>

Authority

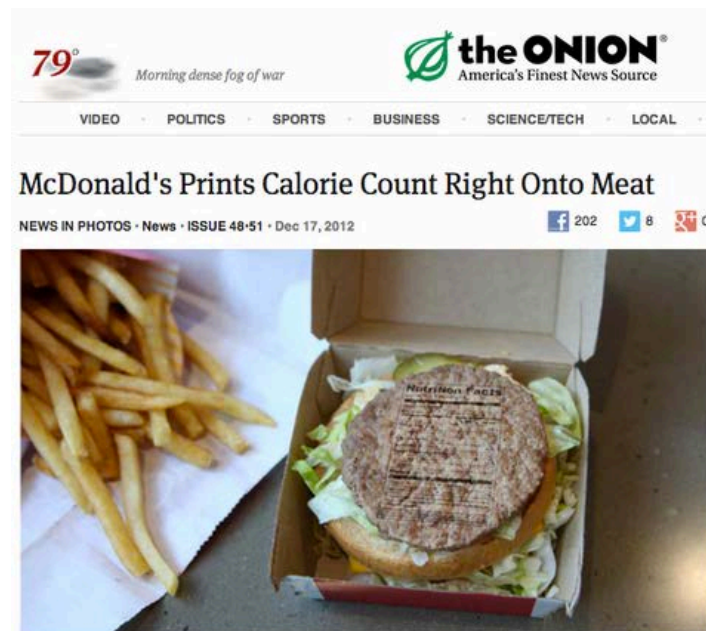
Students were reminded that the author / provider of the information must also be taken into consideration. Does the author have a good reputation? What are the author's credentials and affiliations? Is the author actually knowledgeable of the subject? As an example, students were asked whom they would be more comfortable citing as a source, Steve Jobs or Justin Bieber, if asked to write an essay about the music business.

When citing sources from the Internet, students should also consider the domain extension of the site. The class discussed the significance of some of the most common extensions:

- .com – commercial site
- .gov – government site
- .edu – educational site
- .org – organization site

Accuracy

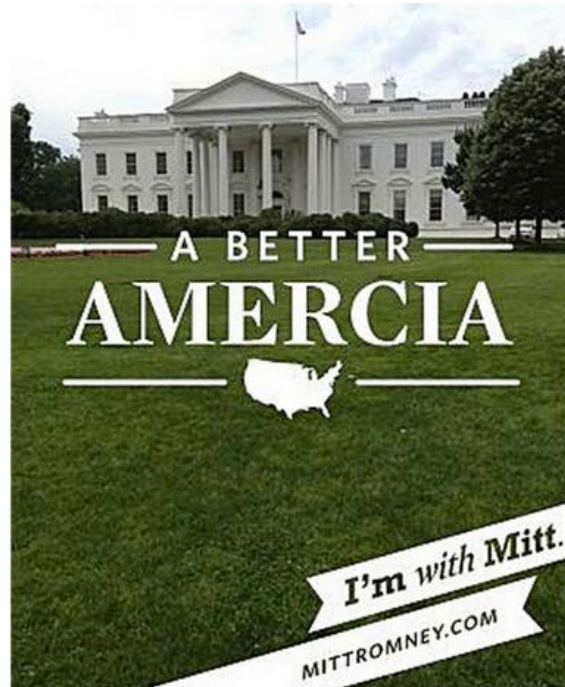
Accuracy is the reliability, truthfulness, and correctness of the information: where the information comes from, whether or not the information is supported by evidence, whether or not the information can be verified from another source or personal knowledge, and whether or not the language is unbiased. Many students were unaware that there exist satirical sites, so caution should be taken and they should use their best judgment when deciding if something is believable.



Example of a satirical article from the Onion

[\(http://www.theonion.com/articles/mcdonalds-prints-calorie-count-right-onto-meat,30759/\)](http://www.theonion.com/articles/mcdonalds-prints-calorie-count-right-onto-meat,30759/)

The following example proved to the students that typos along with grammatical errors, should be something to look out for; any spelling or grammar issues in their own essays would also make their information less reliable.



A crucial misspelling in one of Mitt Romney's campaign advertising

<http://content.usatoday.com/communities/onpolitics/post/2012/05/mitt-romney-iphone-app-america-misspelled/1#.VK73GmTF9sA>

Purpose

Of course, most of the sources that the students will cite in future college essays will be in the form of electronic articles, journals, and other text sources, but for this component of CRAAP the students were given a series of ads to decipher its purpose. This is because it is quicker to determine whether each ad aims to inform, teach, sell, entertain, or persuade.

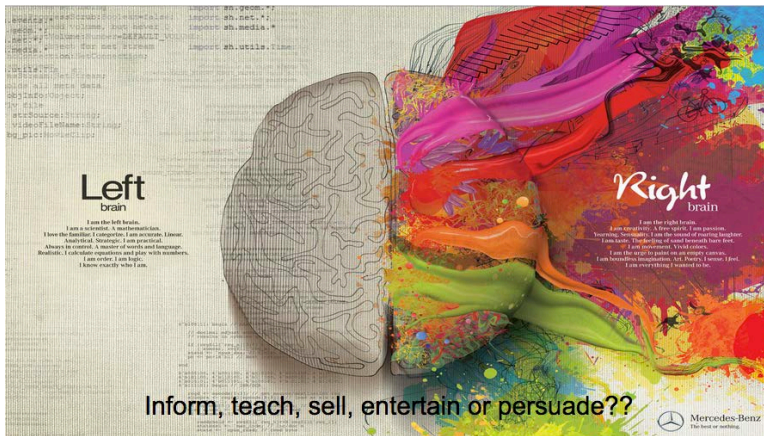


An advertisement for Camel cigarettes

<http://www.mintfactory.co.uk/blog/marketing/ads-you-will-never-see-again/>



<http://www.themost10.com/effective-ads-that-can-stop-you-smoking/>



Mercedes Benz advertisement

<http://creativecriminals.com/mercedes/left-right-brain>



An instructional infographic ad for Gangnam Style

<http://infographiclist.com/2013/03/15/gangnam-style-the-5-basic-steps-infographic/>

In the end, students were given an algorithm for determining the reliability of an Internet source using the CRAAP test as a foundation. The algorithm gives an order of things to look for the:

1. date the information was posted
2. domain extension
3. name and information about the author
4. relevance of the information
5. sources for the sources
6. biases or agendas the author may have
7. correctness of grammar and writing

What were the “learning goals?”

The goal of this lesson was to give the students an algorithm to determine the reliability of Internet sources.

How did you introduce CT?

Computational thinking was introduced informally through an interactive PowerPoint presentation.

How could you assess the understanding of CT in this module?

The understanding of computational thinking was not assessed in this module. If assessment is desired, students could be assigned a small research problem that required the citation of Internet sources and the reasons, or process, those sources were chosen with.

NOTES AND OBSERVATIONS

What were challenges you encountered in the overall development of the module?

The challenges with this module were finding relevant and engaging examples for each component of the CRAAP test.

What was successful?

The students really enjoyed interpreting the purpose of the ads, and understood how the CRAAP test can be used as a useful algorithm.

How was the students’ reception to the content of the module?

Overall, the students were engaged throughout the presentation.