

How to Learn from the Internet

by Winston Sieck - October 01, 2012

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More and more we reach out to the web to get answers to our [questions about the world](#).

When we're seeking to understand why oil spills, financial crises, and other major events take place, it seems natural to go to the internet for the latest analyses and reporting.

The desire to get a grip on the workings of more local and mundane things, such as our household appliances and latest "i"-devices propels us in the same direction. To do this well, we need to know how to learn from the internet.

Often, very detailed and technical explanations are available to satiate our curiosity and refine our models of how things work. And they are often presented in [multimedia learning environments](#). But how good are we really at making sense of the information conjured so readily from a few keystrokes?

What strategies can we use to improve what we get out of our countless sessions browsing the web?

Jennifer Wiley of the University of Illinois at Chicago and her colleagues investigated the issues of how and how well college students learn from the internet. Wiley's research offers us tips on how to learn from the web.

Wiley asked the students to write essays that explained the workings of volcanoes. After conducting some research about the topic on the web, they were to write detailed explanations for why Mt. St. Helen's erupted. The researchers published [their studies](#) on learning science from the internet in the American Education Research Journal.

Wiley and her colleagues found that the most important factor that separated those who best knew how to learn on the web from the rest was the ability to discriminate between credible and incredible information sources. This includes identifying those [making bad arguments](#).

In addition to highly credible sources, like *Scientific American*, some of the search results included questionable websites that gave bad information. One of these was an astrology website that cited the positions of other planets and stars as among the causes for the eruption. Another was by the inventor of a "green engine" who claimed that oil drilling was responsible. The students who best knew how to learn were able to separate the informational wheat from the chaff, a key aspect of [everyday critical thinking](#).

Even these students who could tell the good information from the bad had difficulty actually talking about their evaluations of the sources, though. When asked to rank the web sites in terms of reliability, they had no trouble. But when asked to describe their reasons why some sites were more credible than others, they had a tough time.

These more successful learners also did not appear to look for converging information across the websites, or use that information as a basis for telling good sources from bad. This showed that even the best students could improve their strategies for learning from the web. We all have more to learn about how to learn from the internet.

In addition to exploring what makes a good web learner in general, Wiley also looked at the influence of specific writing instructions as a means for how to learn from web research. Half the students were told that they would be writing a *description* of what caused the eruption. The other half were informed that they would write an *argument* about what caused the eruption.

The idea was to test whether students who were asked to write arguments from their web research would produce essays with more causal connections and better integration of ideas than students who were asked to write descriptive essays. The researchers also wanted to see whether students who were preparing themselves to write arguments after learning from the internet would evaluate the web sources more carefully.

The precise writing instructions had an effect on learning from the internet. The students who wrote argumentative essays included more correct causes and fewer wrong causes in their writing than those who wrote descriptive essays.

The study mimicked what it's like to learn from the internet in real life. The best, most complete explanation could not be found from any one of the search results. Instead, each of the different sources provided some clues as to only a piece of the whole story. Students would have to integrate facts about causes during different phases of the eruption to write a compelling, complete essay. Students who prepared argumentative essays did this more than those who wrote descriptive essays.

Writing is a good strategy for how to learn from the web, as well as an excellent way to [make good decisions](#).

Based on these results and others, Wiley and her collaborators developed and tested training on [evaluating sources](#), finding that it greatly aided students ability to learn from the internet effectively and efficiently.

Image credit: [Bruce Clay](#)

Wiley, J., Goldman, S., Graesser, A., Sanchez, C., Ash, I., & Hemmerich, J. (2009). Source Evaluation, Comprehension, and Learning in Internet Science Inquiry Tasks *American Educational Research Journal*, 46 (4), 1060-1106 DOI: [10.3102/0002831209333183](https://doi.org/10.3102/0002831209333183)

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