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Hazards of the Information Superhighway

IN THE 1990S, U.S. Vice President Al Gore characterized the Internet as an “Information Superhighway.” This metaphor has some utility as we try to understand emerging properties of the global Internet. More recently, an old friend, Judith Estrin, touted the importance of friction in the online environment. She had two things in mind, I believe. The first is that friction slows things down and sometimes that is exactly what is needed to give time to think about the content found on the Internet, especially in social media. Friction also keeps you on the road and not spinning off at every turn. As reports of the deliberate injection of misinformation and disinformation into the Internet continue to escalate, my attention has been drawn to efforts to counter this trend. I went back and re-read the May 2019 report about the Finnish response to information pollution,^a which has garnered attention from other countries and organizations concerned about this phenomenon.

The Finnish response centers on critical thinking and teaching citizens of all ages to ask probing questions about information they gather whether online or offline. Propaganda is intended to steer the recipient's thinking into the directions intended by its source. Interestingly, the so-called weaponization of information need not be unidirectional. The disinformation campaigns allegedly conducted by Russia against the U.S., France, and the U.K., for example, were often designed to pit opposing

groups against one another for the purpose of disrupting democracy. The propagandists were not interested in one group or another prevailing as much as they wanted to sow distrust of democratic institutions, disrupt rational and civil discourse, and generally increase domestic tensions among groups with potentially conflicting agendas.

It is tempting to think such mischief would be obvious to those exposed to these campaigns but we are human and being human we are subject to effects such as group think and confirmation bias. We grow comfortable with our beliefs and those of like-minded people, so much so that even in the face of clear evidence, we may be more likely to reject factual refutation of our positions than to change our minds and our positions. Indeed, there is some evidence that factual rebuttals may generate increased intolerance of views opposing our own, despite their factual basis.

The Finnish antidote is to train its citizens to think critically about what they see and hear; to ask questions about corroborating evidence; to explore and uncover the sources of controversial statements. That this takes real work is evident. Students report the effort is sometimes onerous. Nonetheless, it strikes me that such effort is an obligation derived from living in a democratic society. The price we pay for the freedom of access to information that we enjoy on the open Internet is the need for due diligence applied to the sources of information we rely upon.

Not surprisingly, brand can become a key indicator of quality of information if the branded source can

be repeatedly validated. In the global Internet, there is a universe of sources and finding quality brands is made all the more difficult by the scale of the problem. Given the critical nature of the Internet's search engines as tools for discovery of World Wide Web content, it seems inescapable that the presentation of search results not only must be prioritized by some measure of quality but also that the ranking criteria must be clear and well understood. Transparency is our friend in this endeavor. This also applies to sources of information. Unvalidated sources or anonymous sources should be considered less trustworthy than strongly authenticated ones. This does not mean, however, that even a well-known source should be taken at face value. Just because a source is well identified does not mean it carries valid information.

Ultimately, this takes us back to critical thinking and the need for multiple reinforcing sources. There may be serious disagreements among legitimate sources of information as is often the case in scientific disputes. The solution to those problems almost always relies on obtaining more factual information and better interpretive theories. This should be the essence of democratic discourse and should not be replaced by fabricated information intended to mislead and derail genuine search for truth. **□**

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^a <https://www.cnn.com/interactive/2019/05/europe/finland-fake-news-intl/>