



The Spread of Misinformation

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Reported Studies

Misinformation is spread across the web for many different reasons and in many different ways. Throughout our research, we examined the reasons as to **why** misinformation is conducted.

Misinterpretation is when the information in a study is unintendedly understood and or explained in a distorted way.

Misused information is when someone intentionally distorts correct information because of certain narratives or biased.

Mythical information is information that is simply just wrong. It is information that is made up.

02



Misinterpretation

Misinterpreting information is usually done by accident. Misinterpretation of information means that the information is misunderstood by the audience.

Misinterpreting information is such a big problem when it comes to the spread of misinformation because once one person has misunderstood the information and that person goes on to explain their understanding to others, those others are then going to understand the concept of the topic as the person that has misinterpreted the information to begin with. Once introduced to that misinterpretation, studies show that even if those people are to later be introduced to the true interpretation of the concept, the human brain will still most likely refer back to the **first** interpretation that it learned about the topic (Crozier).

03



Misused

Even correct and accurate information can be used to spread misinformation. With the use of the Simpsons Paradox, one can show 100% accurate statistics but still push a false narrative. This information while accurate, is misused.

04



Mythical

Mythical information is made-up. There is a lot of uncertainty and confusion when it comes to the food and nutrition industry. We hear about social influencers "promoting" diets, pills, and much more to their audiences but where did all of this actually start? There is not a specific date but as far back as War World I, we can see how there were shortages in certain foods and abundances for others. This lead to the food pyramid and the inaccuracy of it because scientist's were trying to "influence" people into eating more of certain foods, such as carrots, than other foods. The public health should be prioritized and how can consumers know weather or not what they are ingesting is in reality healthy for them, when scientist's are the ones who are spreading these mythical lies.

05



Examples

• An example of misinterpreted information that led to the misinformation effect is as follows: 'Imagine arriving home and seeing a maintenance van parked in your neighbors driveway. You note the company name "RJ's Electricians" but otherwise ignore it. Several hours later, however, you learn from a second neighbor that some jewelry is missing from the neighbor's house, and the driver of the maintenance van is the prime suspect. This second neighbor notes the that the company name was "AJ's Electricians." When the police ask you about what you saw, will you report "RJ's" or "AJ's"? If you say "AJ's," you will demonstrate the "misinformation effect." ' Following for what you heard the neighbor say, would be your brain following the misinterpreted news from the neighbor.

• An example of misused information would be if for instance out of 100,000 students in 2020, only 10 dropped out. The dropout rate for 2020 would be .01%. Let's say in the following year 20 out of 100,000 students dropped out. the dropout rate for that year would be .02%. The rate raised from .01% to .02%. From .01 to .02 is a 100% increase by proportion. This is all correct information, but if i were to only showcase that from 2020 to 2021 there was a 100% increase in dropout rates, that can be misleading and push a false narrative. What happened here was the Simpson's Paradox. In the most basic definition, the Paradox occurs when one narrative can be pushed based off of a data set, but when the whole picture is reviled and one looks at all of the data, the original assumption is the opposite of the truth. Real world examples include the Birth Control scare of 1995 (London), the UC Berkeley gender bias (California), Collegiate Toothpaste Billboard, and more.

• One prime example of mythical information is the food pyramid. The food pyramid from 1992 encouraged people to consume around 6-11 servings of bread, rice, and pasta a day! That is so mind blowing, imagine having 6 plates of pasta, you would be over consuming this plate by 4 plates. Today the food pyramid recommends consumers to only have an intake of 2 servings, and 2 is in reality pushing the limit.

06



Solution

There should be a group or association dedicated to slowing the spread of information spread by non-credible source. This group or association would only have the goal of making sure that it is easy for everyone to be able to differentiate reliable information from propaganda. When the group or association deems a source, article, or study as non-credible, they do not take it down or remove it. They would simply require the author or producer of said study to have a stamp or seal displaying to readers that their founding has been deemed noncredible. So that people can trust their information. Now to prevent bias on the review board, they aren't allowed to be governmental officials and this group would be a non-profit. This group will be full of scholars and experts in each area.

SOURCE

https://en.wikipedia.org/wiki/Simpson%27s_paradox

[https://www.jstor.org/stable/27007731?](https://www.jstor.org/stable/27007731?searchText=food+pyramid+misinformation&searchUri=%2Faction%2FdoBasicSearch%3FQuery%3Dfood%2Bpyramid%2Bmisinformation%2B%26so%3Drel&ab_segments=0%2FSYC-6294%2Fcontrol&refreqid=fastly-default%3A5d6c2b74a2e0badda18d8d76bfeebf84&seq=1)

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Crozier, William E, and Strange, Deryn. "Correcting The Misinformation Effect." *Applied Cognitive Psychology*, vol. 33, no. 4, 2019, <https://ezproxy.library.astate.edu/login?curl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fcorrecting-misinformation-effect%2Fdocview%2F2254827776%2Fse-2%3Faccountid%3D8363>.

