DataWISE: A Tool for Scientific, Media, and Data Literacy



Is this Worthy of attention?	Who is presenting this?	Is the author qualified to discuss this information? If they are a scientist, do they
	Consider: qualifications, who	have an educational and/or professional background directly connected to the
	they represent, bias, conflict	topic? Who is funding the research or publication? Does that introduce any
	of interest, what others say	conflicts of interest? Do an online search to find out what other sources say
	about their trustworthiness.	about the trustworthiness of the author and claim.
	What claim are they making or implying?	Is there a direct claim being made that is using data as evidence? If not, is there a claim being implied by the presentation of the data?
	Why are they making this claim? Do an online search for	What is the purpose of the information? Is the intention clearly stated or implied? Is the point of view objective and impartial? Is there evidence that this is opinion, propaganda, marketing, or otherwise politically motivated?
	purpose and motive.	is opinion, propaganda, marketing, or otherwise politically motivated.
	What is being measured?	What are the variables represented in the data presentation (charts, graphs,
	What data and units are on	etc.)? Are the variables and axes labeled appropriately? Are the data presented
	the axes? Are they clearly	in a straightforward way, or are they misleading?
ıta.	labeled and not misleading?	
Inspect the data.	Is the scale and choice of	Is the scale of the graph appropriate? Is the graph only showing data that the
the	units appropriate?	author wants you to see and excluding other relevant data (cherry-picking)? Is
ect	Consider: cherry-picking, choice of categories,	the graph showing too much data so that it is difficult to see relevant trends? Did the author truncate the data to make differences seem exaggerated (bar graphs
usp	oversimplification,	should start at zero)? Did the author group data in a way so that categories or
	truncation. etc.	"bins" agree with their claim instead of grouping data in a different way?
	Is causation implied when	If there is a relationship between the variables presented or implied, can you be
	correlation is more likely?	sure that one of those variables influenced the other directly?
	Is the comparison of these	Is the author correlating variables that do not have a cause-and-effect
	variables logical?	relationship? Can another variable account for some or all of the change seen?
	Are there other variables	How could you design an investigation to test whether these variables could be
e:	that could be considered?	interacting, controlling as many other variables as possible?
Does this make Sense?	Are there signs that the data are biased?	How and why was this sample chosen? Was it chosen for convenience? Did the author only use data that would support their argument to the exclusion of other relevant data? Is the sample size large enough to be representative?
	Are there other ways to interpret the data?	Without looking at the author's conclusion, how do you interpret the data? Does this match with the conclusion presented? Could other conclusions be arrived at through another interpretation?
	How does this compare with other reliable sources? What do other experts say?	Look at other reliable sources. Can you find other studies on the same topic? Is there consensus in the relevant field of study? Has the claim been debunked by a fact-checker like Snopes or PolitiFact? If most studies disagree with this one, which claim is supported by the best evidence and logical interpretation?
<u>~.</u>	How does this conclusion	Does this claim or headline make you feel a strong positive or negative emotion?
ted	make me feel?	Is the headline or title consistent with the data and conclusions stated later? If
What Emotion is activated?	Is it overhyped or clickbait?	an extraordinary or sensational claim is being made, is there sufficient data to support that claim?
	Is this what I already	Maintain awareness of your emotions and try not to fall into the trap of
	believed before I read it?	confirmation bias. If the claim makes you feel a strong emotion, take a step back
		and then take a deeper look trying to be unbiased.
Ш	What might make me	If you agree or disagree strongly with the author's conclusion, consider what it
at E	change my mind?	would take to change your mind. What kind of evidence? How much evidence?
Åh		How many other corroborations?

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	What claim are they making	
	or implying?	
	Why are they making this	
	claim?	
	Do an online search for purpose and motive.	
Inspect the data.	What is being measured?	
	What data and units are on	
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dsr	oversimplification,	
-	truncation. etc.	
	Is causation implied when	
	correlation is more likely?	
	Is the comparison of these	
	variables logical?	
	Are there other variables	
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