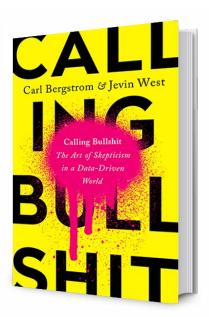
A handbook to 21st Century life



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If 2020 – or the twenty-first century needed a handbook, this is it. In "Calling Bullshit: The Art of Skepticism in a Data-Driven World", science professors Carl Bergstrom and Jevin West have adapted the syllabus of the popular undergraduate course they've been teaching at the University of Washington since 2017, to provide the rest of us with a fantastically useful guide to recognising bullshit, to figuring out why it is so, and to calling it out. This last step of the process – what the authors call "the performative utterance in which one repudiates something objectionable" - is the reason the book's title has the word "calling" in it, as opposed to just "spotting". As you may have already discerned, a solution to the ongoing epidemic of garbage information requires us to shine a light on bullshit,



and, as the authors put it, "demand better from those who promulgate it".

The first section of the book grapples with definitions and ideas: what is bullshit? Where does it come from? Why is there so much of it? The second section gives practical tools for identifying it in the wild; and the final chapters provide broad guidelines for spotting, and then refuting or challenging it.

If you're looking for a list of news sources that you can believe unquestioningly, or a single arbiter of truth to consult on all matters, this book will disappoint. But if you're looking for tools to read graphs more intelligently, to parse statistical claims, to apply logic to a spurious line of reasoning, to think cogently about artificial intelligence and big data, and to better understand the practice and process of science, Bergstrom and West are here to help.

The scientific method may be "humanity's greatest invention"; it enables us, through an iterative, selfcorrecting process, to arrive at truths about the world we live in. Scientists primarily communicate their findings through technical papers that are reviewed and accepted by their scientific peers (not in 40-minute YouTube videos or emoji-laden Facebook posts). These papers do not contain the sort of triumphant absolutist language that one might expect from "eureka!" moments. Uncertainty is intrinsic to the scientific process. The aim is the reduction of uncertainty; the absence of uncertainty should be regarded with extreme suspicion. The scientific process may be slow and appear fraught with irresolution, but it works.

The smartphone in your pocket, the fact that you still have almost all your teeth, and that your life expectancy at birth was substantially greater than 30 years, are testament to that.

Unfortunately, in the throes of a rapidly unfolding global epidemiological event, it has been easy for bad actors and the misinformed to co-opt the language of science (and hence an air of legitimacy), but not its procedural rigor. Part of the psychic discomfort associated with life in 2020 has been related to the amount that we do not know, and to how rapidly the state of knowledge has been changing and evolving. Most of us - non-scientists are accustomed to things being "settled", not to having to learn alongside members of the scientific community, or to actually see the scientific method in action.

It is human nature to seek out certainty, and those peddling it, but we may rather have to follow the advice of Rainer Maria Rilke and "live the questions", until we eventually "live along some distant day into the answer". We already know substantially more about life with the novel Coronavirus than we did in January of this year, but

filtering out the bullshit to arrive at these truths has been an often exhausting and frustrating challenge. "Calling Bullshit" was published in August, but we've needed it for far longer than that!

I found this book to be practical and empowering. It will be useful to you long after Covid-19 has been squashed. It'll assist in every aspect of your life, from navigating the sometimes confusing world of investments, to dealing patiently, kindly and factually with your tinfoil-hat wearing mother in law. Some countries, like Finland,

are working to equip their school-age young people with the sort of tools that this book provides. Most of us did not grow up in a world (or country) that recognises the threats to democracy, human health and safety presented by the firehose of bullshit we're exposed to daily, from ever-increasing numbers of sources. Bergstrom and West offer an opportunity to remedy this deficit. If you're going to act on one Consider This book recommendation, please let it be this one.

Clare joined Prudential in 2007 and is the Head of Quantitative Analysis. With 17 years of industry experience, she has worked in a range of roles spanning quantitative analysis, marketing and web development. Clare holds a Master of Science degree in Financial Mathematics from the University of Cape Town, a Financial Risk Manager certification from the Global Association of Risk Professionals and is also a CFA charterholder.