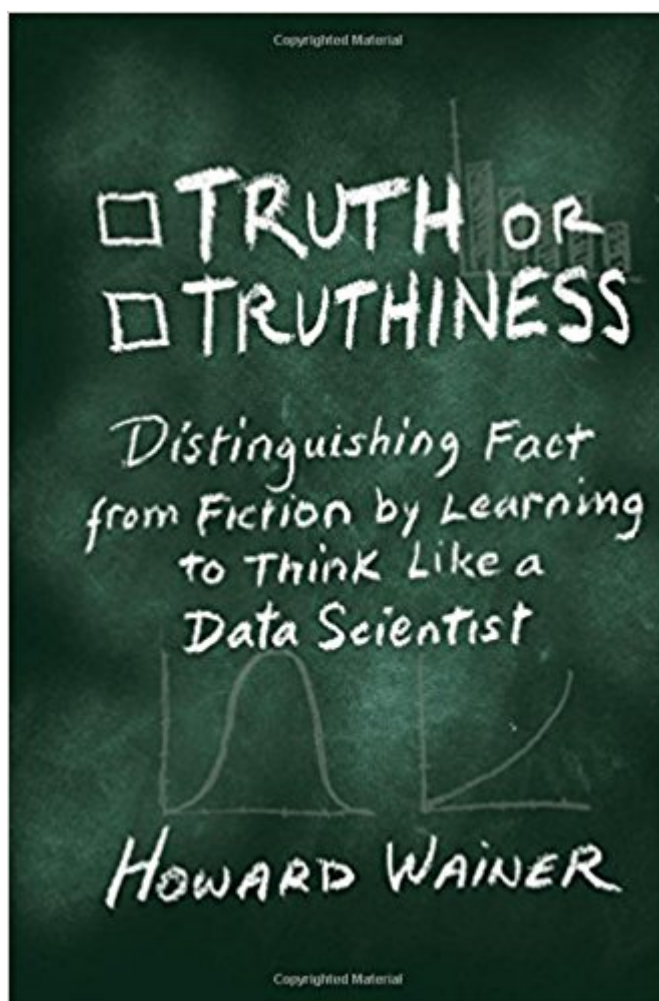The book was found

Truth Or Truthiness: Distinguishing Fact From Fiction By Learning To Think Like A Data Scientist

Synopsis

Teacher tenure is a problem. Teacher tenure is a solution. Fracking is safe. Fracking causes earthquakes. Our kids are over-tested. Our kids are not tested enough. We read claims like these in the newspaper every day, often with no justification other than 'it feels right'. How can we figure out what is right? Escaping from the clutches of truthiness begins with one simple question: 'what is the evidence?' With his usual verve and flair, Howard Wainer shows how the sceptical mindset of a data scientist can expose truthiness, nonsense, and outright deception. Using the tools of causal inference he evaluates the evidence, or lack thereof, supporting claims in many fields, with special emphasis in education. This wise book is a must-read for anyone who has ever wanted to challenge the pronouncements of authority figures and a lucid and captivating narrative that entertains and educates at the same time.

Book Information

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Customer Reviews

"This book is like the proverbial bag of potato chips. It's impossible to stop reading after just one of its fun and thought-provoking examples of statistical reasoning." Andrew Gelman, Columbia University"Howard Wainer persuasively argues that you cannot be an informed citizen unless you understand the new data science. Using examples and anecdotes from education, medicine, and elsewhere, he arms readers with tools they can use to make better decisions and a better world. And he does it with the ease, charm, and brilliance of the originator of truthiness." Arthur E. Wise, President Emeritus, National Council for the Accreditation of Teacher Education"[This is] compelling reading on contemporary topics that exemplifies how to think clearly about the busy world around us

... Wainer gets more clever over the years, finding deeper anecdotes, discovering better quotes, and writing with more grace than ever." Ben Shneiderman, University of Maryland"Wainer has taken a leap forward with his new book, Truth or Truthiness. He has shown that he can take on complex issues using the basic premise that our new societal norm addresses policy solely through inference while lacking supportive evidence. With his usual interesting and direct style, Wainer looks at this lack of data support in examining societal issues, especially education. This is truly a compelling read and I think should be required reading for those who set educational policy." Kurt Landgraf, President and CEO, Educational Testing Service, 2000-2013"Howard Wainer was an expert witness in cases where I defended public school teachers who were accused of changing students' answers on standardized tests. I implored him to explain his theories in terms that would be understandable to lay people. Truth and Truthiness makes clear that he took this to heart." Keith J. Zimmerman, Kahn, Smith and Collins, P. A., Baltimore"... at a time when PolitiFact's 'Truth-O-Meter' provides an essential guide to politicians' stump speeches, Wainer's book is welcome indeed. It is perhaps especially relevant in a divisive election year, when evidence, truth, and expertise seem under assault and yet desperately needed ... [Wainer's] examples form a convincing argument that no matter how intractable a problem seems, careful use of data can help sort things out." Christopher J. Phillips, Science

Escaping the clutches of truthiness begins with one simple question: 'what is the evidence?' Howard Wainer shows how the sceptical mindset of a data scientist can expose truthiness, nonsense, and outright deception. He evaluates the evidence, or lack thereof, supporting claims in many fields, with special emphasis in education.

What a disappointment. The opening chapters are strong, with engaging examples, and a compelling warning about the pitfalls in drawing causal inferences from observational data. Then he goes through a detailed example on causal analysis of bypass surgery, but it was hard to understand the recommended best practice approach to dealing with missing data associated with deaths. Then the example of the possible causal relationship between fracking and earthquakes seems contrary to all the earlier warnings - in this case it seems to be ok to infer causality from observational data as long as experts agree with that conclusion. The section on correlations among various moral statistics by U.S. state seems weak, especially the claimed similar patterns in color-coded maps. A later graph showing changes in math test scores uses a classic bad practice of claiming "steep gain" over time from a line chart whose y axis range does not start at 0, thus giving

little perspective on how significant the increase is. And the last few chapters have some interesting examples, but the arrogant attitude of the author's critique is distracting.

A very good read from a great writer and one of the most reputable behavioral statisticians.

The first section of the book (Thinking Like a Data Scientist) is fairly interesting and mildly insightful.However the book feels extremely and needlessly padded (e.g. the table of contents contains a synopsis of each chapter; this is immediately followed by an introduction section that serves the same purpose), there are several (albeit minor) errors (one example is misreferring to Daniel Kahneman's "Thinking, Fast and Slow" as "Thinking Fast, Thinking Slow"), and, as other reviewers have noted, I found it strange that section one espouses the benefits of controlled studies, but then the rest of the book is largely spent making causal inferences from observational data.I think the book would have been more successful as a white paper... On the whole it just feels like a money grab.

Perfect time for this book to come out in this "unusual" Presidential Race. Makes you think from different angles.

So much of what we know is just wrong. From internet facts to everybody knows that, we make things up and believe them, with nothing backing them but the knowledge that we all agree we knew that. And yet, by shifting slightly, Howard Wainer says we can outsleuth Sherlock Holmes.Wainer demonstrates it in a remarkable lawsuit where he was called into aid a Ã¢Â Âœprofessional licenseÃ¢Â Â• exam taker who was falsely accused of cheating. Wainer showed the evaluation system, which looked terrific at first blush, was actually terribly inaccurate and unjustifiable. Wainer compares it to mammography, a parallel system that shows the same misguidance. In mammography, false positives rule. In breast cancer cases, only five percent of positive mammographies represent actual cancer. He shows this from mammographyÃ¢Â Â™s own impressive (at first) numbers. Testing for cheaters Ã¢Â Â" no better. Ruining someoneÃ¢Â Â™s career over such lousy methods Ã¢Â Â" unacceptable. Who said statisticians couldnÃ¢Â Â™t be cool?Wainer shows convincingly that fracking does cause earthquakes, that tenure in education is actually cheaper than hiring annually, that global numbers predict the breaking of sports records, and that the whole field of education is rife with truthiness based on gut feeling (and outright criminally rigging results).He says there are three reasons why people wonÃ¢Â Â™t listen to the

facts:-A lack of understanding of the methods and the power of the Science of Uncertainty-A conflict between what is true what is wished to be true-An excessive dimness of mind that prevents connecting the dots of evidence to yield a clear picture of likely outcome.The purpose Ã¢Â Â" and value - of Truth and Truthiness is in its applicability. WainerÃ¢Â Â™s approach achieves results without computer power or advanced mathematics. The conclusions are self-evident if we follow the data. Just thinking this way Ã¢Â Â" in the manner of data specialists Ã¢Â Â" means better decisions for all of us. And so he rightly calls the concluding chapter Do Try This At Home.Just donÃ¢Â Â™t pick an argument with this man.David Wineberg

Wainer didn't write much about thinking like a data scientist. The first few pages were pretty good, but then the author got lazy and started talking about fracking. He followed that discussion with one on graphical display of statistical information, a subject he's published extensively on. I suspect, though I haven't read his other writings, that much of the information in the last 3/4 of the book is a rehash of other works. Truthfully, I quit reading carefully and thoughtfully after the chapter on fracking; I quit reading entirely when he got to his obviously favorite subject: graphical display of data. So the last 3/4 of the book may be wonderful. I just couldn't slog through the first quarter.

This book describes odds and ends that the author encountered during his work as a data scientist, mostly in the field of education. This book is disappointing, because it is mostly unconnected anecdotes. There are other gaps as well, as is exemplified by the following example:After spending some time to explain how important it is to distinguish correlation from causation, he delves into the case of the relationship between earthquakes in Oklahoma and fracking. Here, there are no randomized experiments, but that doesn't deter the authors from trying to claim causality. It may be that indeed fracking is causing earthquakes, but one should not be so sure without (as the author taught us) having a controlled experiment.To push his point further, he quotes one of the critics of this link and writes (pg. 69) that this critic doesn't believe in anthropogenic climate change, and therefore, by implication, should not be trusted. This, in football, is referred to as "playing the man and not the ball". If you have no proof, better not give it.

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Science, Business Intelligence Book 6) Big Data For Business: Your Comprehensive Guide to Understand Data Science, Data Analytics and Data Mining to Boost More Growth and Improve Business - Data Analytics Book, Series 2 Think Java: How to Think Like a Computer Scientist Think Python: How to Think Like a Computer Scientist Fact Book: The HUGE Book of Amazing Facts and Interesting Stuff: Best Fact Book 2016/17 (Amazing Fact Books) (Volume 1) Analytics: Data Science, Data Analysis and Predictive Analytics for Business (Algorithms, Business Intelligence, Statistical Analysis, Decision Analysis, Business Analytics, Data Mining, Big Data) Act Like a Lady, Think Like a Man, Expanded Edition CD: What Men Really Think About Love, Relationships, Intimacy, and Commitment Act like a Lady, Think like a Man: What Men Really Think About Love, Relationships, Intimacy, and Commitment How to Think Like Sherlock: Improve Your Powers of Observation, Memory and Deduction (How To Think Like series) Act Like a Lady, Think Like a Man, Expanded Edition: What Men Really Think About Love, Relationships, Intimacy, and Commitment Stephen Colbert: Beyond Truthiness Know Your Onions - Graphic Design: How to Think Like a Creative, Act like a Businessman and Design Like a God Distinguishing Psychological From Organic Disorders, 2nd Edition: Screening for Psychological Masquerade Blame It on the Brain: Distinguishing Chemical Imbalances, Brain Disorders, and Disobedience (Resources for Changing Lives) Do You Think What You Think You Think?: The Ultimate Philosophical Handbook Sound (Tabletop Scientist) (Tabletop Scientist) Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data