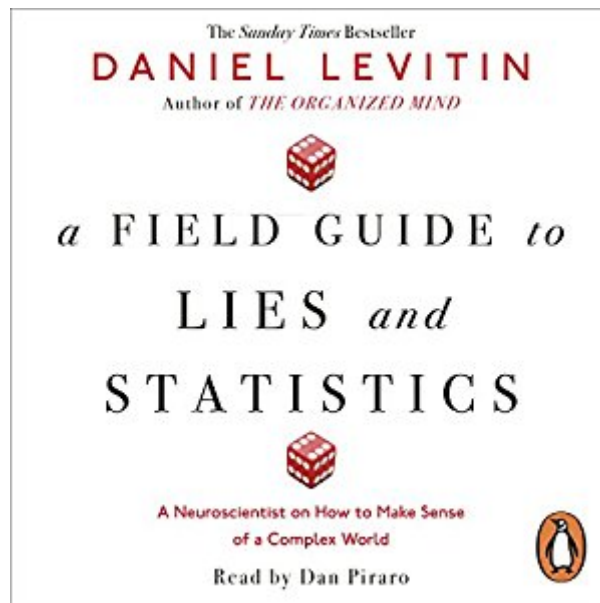The book was found

A Field Guide To Lies And Statistics: A Neuroscientist On How To Make Sense Of A Complex World

Synopsis

Penguin presents the unabridged downloadable audiobook edition of A Field Guide to Lies by David Levitin, read by Dan Piraro. The best-selling author of The Organized Mind explains and debunks statistics in the information age. We live in a world of information overload. Facts and figures on absolutely everything are at our fingertips but are too often biased, distorted, or outright lies. From unemployment figures to voting polls, IQ tests to divorce rates, we're bombarded by seemingly plausible statistics on how people live and what they think. In a world where anyone can become an expert at the click of a button, being able to see through the tricks played with statistics is more necessary than ever before. Daniel Levitin teaches us how to effectively ask ourselves: can we really know that? And how do they know that? In this eye-opening, entertaining and accessible guide filled with fascinating examples and practical takeaways, acclaimed neuroscientist Daniel Levitin shows us how learning to understand statistics will enable you to make quicker, better-informed decisions to simplify your life.

Book Information

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Customer Reviews

I have read numerous books on this subject. Many of them have too many errors, focus on trivial considerations or arcane mathematical technicalities, and few cover the important subject of applying critical thinking not only to numbers but words (logic, reasoning protocol, etc.). Given that, this is one of the very best books on the topic I have read yet.I really liked the author splitting his subject in three main categories: 1) evaluating numbers; 2) evaluating words; 3) how the scientific method works. Each section covers its respective subject in a thorough and entertaining way.Within

the evaluating numbers section the author covers all the ways in which visual quantitative data (graphs) can fool you. You really have to watch very carefully the scale of the X- and Y-axes to understand if someone is trying to trick you. The author does a good job of explaining the difference between correlation and causation (and how not to confuse the two). He also warns you not to confuse what is tested as statistically significant and yet can be immaterial (small differences pop up as statistically significant that have little bearing on the outcome when you have very large samples). The author also warns against extrapolating trends especially when you go outside the boundaries of the variable values you observed within the learning sample of your data set. The author covers well the various biases and errors that can affect sampling (participation bias, reporting bias, etc.). The chapter on probabilities is excellent with a well-defined differentiation between classic probabilities, frequentist probabilities, and Bayesian probabilities.Within the evaluating words section, the author warns about understanding the actual domain narrowness of experts. He does a good job of explaining the difference between incidence and prevalence rate. He provides a very good coverage on behavioral risk perception that is so detached from probabilistic thinking.Within the scientific method section, the author defines the different types of reasoning (deduction, induction, abduction). He also covers logic and logic notation. He also covers in greater detail Bayesian statistics. The latter is a subject that permeates every section of the book. And, he does a good job of explaining Bayes thanks to his four- quadrant framework that is really helpful in calculating the related Bayesian statistics.The author makes just one small error where he confuses R Square with R (correlation). R Square explains how much the variance in one variable can be explained by the other variable. Meanwhile, R simply tells you the strength and the direction of the relationship between those two variables. Also, remember R is often negative (so the explanation bit here not only is wrong but is divergent) meanwhile R Square canÃ¢Â Â™t be negative by definition. This is a minor typo. I know the author knows that stuff. One math typo in a 250-page book is far better than most books on the subject.

For anyone about to start University this is a must have primer. Levitin writes in such an easy going way that you can see him smiling as he provides examples to explain hard ideas in a simple, clear manner. If you find stats and research methods confusing or daunting this is for you. At the same time, as consumer of information everyone of us should be acquainted with the ideas and insights Levitin provides. We would be less likely to fall for the poor analysis and down-right nonsense that characterizes so much of the information we consume today. Who knows... if we up our game, maybe journalists/pundits/bloggers will be forced to up theirs!

An outstanding overview of critical thinking. A (relatively) short read but it does get the brain cells cranked up. You can't just breeze through it; you have to think and that's what makes it great.

Thoughts on Levitin's Weaponized Lies & A Field Guide to Lies - Good reads on how statistics can deceiveWith great interest, I read Daniel Levitin's recent books "Weaponized Lies: How to Think Critically in the Post-Truth Era" and "A Field Guide to Lies: Critical Thinking in the Information Age." Both of these books give a good primer to deal with statistics, going over such things in detail such as Bayesian analysis in terms of a 2x2 table. Levitin also talks a bit about how people sort the truth by simply making false graphs with unlabeled axes or how there are more subtle aspects such as subtly changing the denominator (eg when talking about individuals versus families). Altogether I found these extremely useful reads. One thing that was a little troublesome to me was that they were fairly similar books. I think it does make sense for the author to repurpose his text into more current times where we talk about fake news and so forth but I still found the overlap between the two books disconcerting.

Levitin's premise is simple: the world today offers an abundance of information. What used to take hours or days to dig up using traditional research now takes moments. We need to reinvest a bit of that time saved into thinking critically about the information we consume. This book offers guidelines to sifting through irrelevant data, pseudo-science and self-proclaimed experts.I'd love to see this book as part of a high school curriculum, to arm the next generation with the skills they need. The primer on Bayesian thinking is worth studying and keeping.

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