

THE MODEL THINKER What You Need to Know to Make Data Work for You

Description

[Tweet](#)

by Scott E. Page. Published by [Basic Books](#), 2018

[Book review by Carol Wells](#) â??Page proposes a â??many-model paradigm,â?• where we apply several mathematical models to a single problem. The idea is to replicate â??the wisdom of the crowdâ?• which, in groups like juries, has shown us that input from many sources tends to be more accurate, complete, and nuanced than input from a single sourceâ?•

Contents:

Chapter 1 â?? The Many-Model Thinker
Chapter 2 â?? Why Model?
Chapter 3 â?? The Science of Many Models
Chapter 4 â?? Modeling Human Actors
Chapter 5 â?? Normal Distributions: The Bell Curve
Chapter 6 â?? Power-Law Distributions: Long Tails
Chapter 7 â?? Linear Models
Chapter 8 â?? Concavity and Convexity
Chapter 9 â?? Models of Value and Power
Chapter 10 â?? Network Models
Chapter 11 â?? Broadcast, Diffusion, and Contagion
Chapter 12 â?? Entropy: Modeling Uncertainty
Chapter 13 â?? Random Walks
Chapter 14 â?? Path Dependence
Chapter 15 â?? Local Interaction Models
Chapter 16 â?? Lyapunov Functions and Equilibria
Chapter 17 â?? Markov Models
Chapter 18 â?? Systems Dynamics Models
Chapter 19 â?? Threshold Models with Feedbacks
Chapter 20 â?? Spatial and Hedonic Choice
Chapter 21 â?? Game Theory Models Times Three
Chapter 22 â?? Models of Cooperation
Chapter 23 â?? Collective Action Problems
Chapter 24 â?? Mechanism Design
Chapter 25 â?? Signaling Models
Chapter 26 â?? Models of Learning
Chapter 27 â?? Multi-Armed Bandit Problems
Chapter 28 â?? Rugged-Landscape Models
Chapter 29 â?? Opioids, Inequality, and Humility

From his Coursera course, which the book builds on: We live in a complex world with diverse people, firms, and governments whose behaviors aggregate to produce novel, unexpected phenomena. We see political uprisings, market crashes, and a never-ending array of social trends. How do we make sense of it? Models. Evidence shows that people who think with models consistently outperform those who don't. And, moreover, people who think with lots of models outperform people who use only one. Why do models make us better thinkers? Models help us to better organize information to make sense of that fire hose or hairball of data (choose your metaphor) available on the Internet. Models improve our abilities to make accurate forecasts. They help us make better decisions and adopt more effective strategies. They even can improve our ability to design institutions and procedures. In this class, I present a starter kit of models: I start with models of tipping points. I move on to cover models explain the wisdom of crowds, models that show why some countries are rich and some are poor, and models that help unpack the strategic decisions of firm and politicians. The models covered in this class provide a foundation for future social science classes, whether they be in economics, political science, business, or sociology. Mastering this material will give you a huge leg up in advanced courses. They also help you in life. Here's how the course will work. For each model, I present a short, easily digestible overview lecture. Then, I'll dig deeper. I'll go into the technical details of the model. Those technical lectures won't require calculus but be prepared for some algebra. For all the lectures, I'll offer some questions and we'll have quizzes and even a final exam. If you decide to do the deep dive, and take all the quizzes and the exam, you'll receive a Course Certificate. If you just decide to follow along for the introductory lectures to gain some exposure that's fine too. It's all free. And it's all here to help make you a better thinker!•

Some of his online videos on Coursera

- [Prediction](#)
- [Linear models](#)
- [Diversity prediction theorem](#)
- [The many model thinker](#)

Other videos

- [Scott Page's Bees Do It: Can Humans? Realizing Our Collective Intelligence](#) 04/14/18
- [Scott Page on leveraging diversity](#), 2010

Category

1. Books

Date

14/01/2026

Date Created

31/03/2019

Author

admin