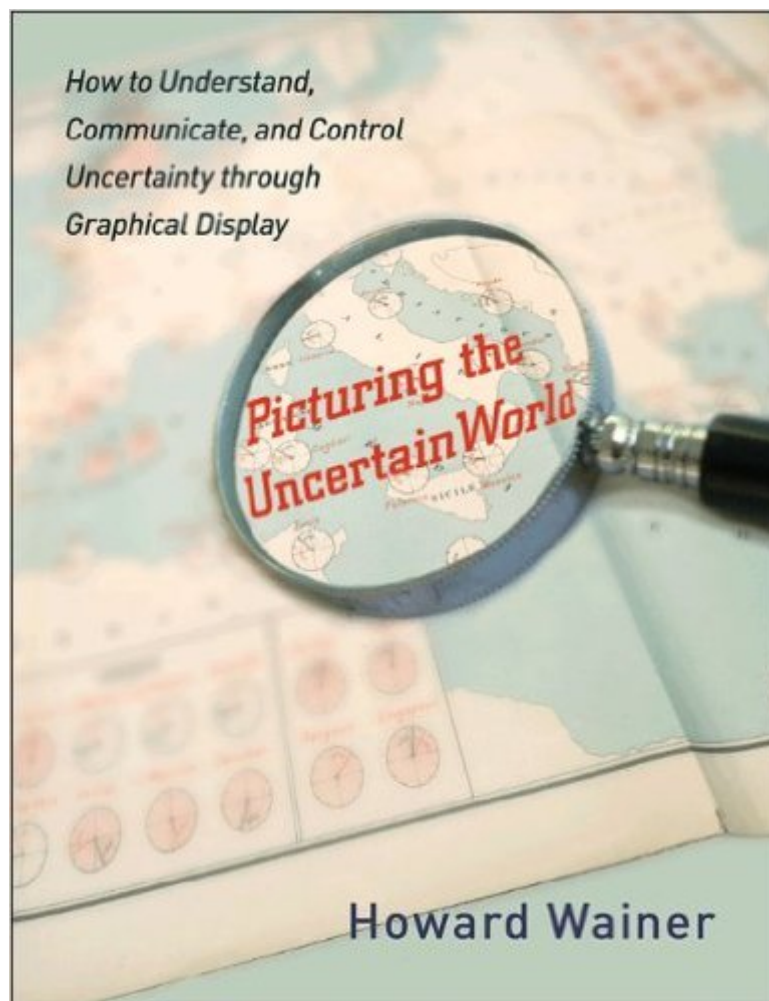# Picturing The Uncertain World: How To Understand, Communicate, And Control Uncertainty Through Graphical Display

How to Understand, Communicate, and Control Uncertainty through Graphical Display

Picturing the UncertainWorld

Howard Wainer

Synopsis

In his entertaining and informative book Graphic Discovery, Howard Wainer unlocked the power of graphical display to make complex problems clear. Now he's back with Picturing the Uncertain World, a book that explores how graphs can serve as maps to guide us when the information we have is ambiguous or incomplete. Using a visually diverse sampling of graphical display, from heartrending autobiographical displays of genocide in the Kovno ghetto to the "Pie Chart of Mystery" in a New Yorker cartoon, Wainer illustrates the many ways graphs can be used--and misused--as we try to make sense of an uncertain world.Picturing the Uncertain World takes readers on an extraordinary graphical adventure, revealing how the visual communication of data offers answers to vexing questions yet also highlights the measure of uncertainty in almost everything we do. Are cancer rates higher or lower in rural communities? How can you know how much money to sock away for retirement when you don't know when you'll die? And where exactly did nineteenth-century novelists get their ideas? These are some of the fascinating questions Wainer invites readers to consider. Along the way he traces the origins and development of graphical display, from William Playfair, who pioneered the use of graphs in the eighteenth century, to instances today where the public has been misled through poorly designed graphs. We live in a world full of uncertainty, yet it is within our grasp to take its measure. Read Picturing the Uncertain World and learn how.

Book Information

Paperback: 264 pages

Publisher: Princeton University Press (October 30, 2011)

Language: English

ISBN-10: 0691152675

ISBN-13: 978-0691152677

Product Dimensions: 6.9 x 0.8 x 8.9 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: 4.3 out of 5 stars See all reviews (7 customer reviews)

Best Sellers Rank: #179,861 in Books (See Top 100 in Books)   #21 in Books > Science & Math > Mathematics > Applied > Graph Theory   #161 in Books > Science & Math > Mathematics > History   #523 in Books > Textbooks > Science & Mathematics > Mathematics > Statistics

Customer Reviews

This thought provoking book is a reasonably good follow up to Edward Tufte's remarkable work (The Visual Display of Quantitative Information, 2nd edition). Wainer acknowledges that Edward

Tufte is among the triumvirate of key contemporary contributors to the understanding of graphic display. Within chapter 11, Wainer reiterates Tufte's main principles of good graphics (don't use an artificial 3d dimension when you are dealing with 2 dimensional data, don't use legends, name variables directly on the graph, etc...). He also refers to the same body of standard setting 19th century graphs from William Playfair, Francis Galton, Florence Nightingale, and Charles Joseph Minard's famous graph of Napoleon's tragic Russian campaign in 1812 (deemed the best graph of all times). He shows those graphs in the book's mid section. He also lauds all these luminaries in Part V: History and then especially Charles Minard in his own chapter 19.Wainer's favorite subject is studying and graphing the variability in data as captured by the standard error. Chapter 1 on the hazard of ignoring the larger standard error inherent in smaller samples is excellent. When you look at the average performance of schools or the average crime rate of cities invariably you will find smaller entities at both the top and bottom of such rankings. And, people invariably focus on just one of the extremes and derive the the conclusions they want (not the right ones): smaller schools are higher performers and smaller towns have lower crime rate. They don't. They just have a greater distribution of outcomes (associated with a larger standard error with small samples).

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