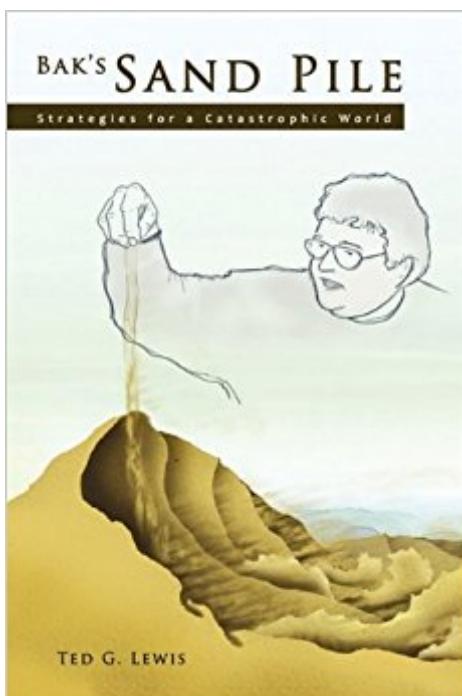


The book was found

Bak's Sand Pile: Strategies For A Catastrophic World



Synopsis

Did the terrorist attacks on the United States in 2001, the massive power blackout of 2003, Hurricane Katrina in 2005, and the Gulf oil spill of 2010 'just happen'-or were these shattering events foreseeable? Do such calamities in fact follow a predictable pattern? Can we plan for the unforeseen by thinking about the unthinkable? Ted Lewis explains the pattern of catastrophes and their underlying cause. In a provocative tour of a volatile world, he guides the reader through mega-fires, fragile power grids, mismanaged telecommunication systems, global terrorist movements, migrating viruses, volatile markets and Internet storms. Modern societies want to avert catastrophes, but the drive to make things faster, cheaper, and more efficient leads to self-organized criticality-the condition of systems on the verge of disaster. This is a double-edged sword. Everything from biological evolution to political revolution is driven by some collapse, calamity or crisis. To avoid annihilation but allow for progress, we must change the ways in which we understand the patterns and manage systems. Bak's Sand Pile explains how.

Book Information

Paperback: 382 pages

Publisher: Agile Research and Technology, Inc (February 28, 2011)

Language: English

ISBN-10: 098307450X

ISBN-13: 978-0983074502

Product Dimensions: 9 x 0.8 x 6 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

Average Customer Review: 4.3 out of 5 stars 7 customer reviews

Best Sellers Rank: #607,858 in Books (See Top 100 in Books) #264 in Books > Business & Money > Management & Leadership > Planning & Forecasting #3309 in Books > Science & Math > History & Philosophy #7262 in Books > Politics & Social Sciences > Politics & Government > Public Affairs & Policy

Customer Reviews

Per Bak's very original book, *How Nature Works*, introduced the reading public to the science of self-organized criticality, SOC, and using examples from ecology, evolution, traffic flow and the like, demonstrated the utility of his basic idea, that complex systems evolve to a state of criticality. Upon reaching the critical state, these systems then become subject to cascades, rapid down turns in complexity from which they recover but will be experienced again repeatedly. Both the magnitude of

these repetitious events and their time spacing can be described by a power law. Lewis has taken both the theory and application of SOC an order of magnitude further. His book covers a wider range of topics than Bak's. I would particularly recommend the chapters on Levy Flights, Invention, Innovation, and Inspiration, and the final chapter, If I Were King. In these chapters he makes connections between SOC and movement, the burstiness of inventive occurrences and the distinction between invention and innovation, and in the last chapter is prescriptive with respect to our shared problems of the 21st Century, all of which appear to be consequences to SOC. Also, his discussion of system resilience and its relationship to the power law exponent is quite insightful. If you have an interest in self-organized criticality and in understanding SOC at some significant depth, if you have an interest in the many events that affect our collective experience (and existence) as a species, the occurrence of which cannot be described by normal distributions but exhibit skewed, long-tailed distributions, and if you appreciate accessible, insightful scholarship, then this book is for you.

The Kindle version is missing either Pages or was not created correctly. Some pages in the Kindle version end abruptly in the middle of a sentence or the middle of a word. It is not clear if the next page is the next page and only part of a sentence is missing or a whole page is missing. The defects do not seemingly take away from the overall content of the book but can be rather distracting. Buy the paper copy. Three stars for the Kindle version; 4 and a half for the content.

I am reading it because of a class, but it is a good book - tough to read but great material. I wish Kindle they have page numbers rather than count...

Good

Lewis does a fantastic job in this volume of explaining the concept of self-organizing criticalities and why systems seem to drive themselves into disastrous situations. In short: we strive for efficiency and that doesn't always get along well with resiliency. This was explored by physicist Per Bak (thus the title) in a series of papers done with other colleagues that have since been cited tens of thousands of times across many disciplines. I've read a lot on this from other authors and this is one of the best explanations of related concepts. Lots of good content here and it's surprisingly accessible even if you're not familiar with the theories behind it. Highly recommended for students of disaster management or complexity theory, or for anyone interested in systems theory or system

resilience.

We must start to accept responsibility and make the changes necessary to protect the future environment, what is the real cost of buying cheaper products? We must change the way we evaluate progress.

I'm still thinking about "self-organized criticality" over a year after reading this. It impacts systems, governments, and most large-scale technologies. It made me think differently, more realistically and expansively, about system redundancy, back-up systems, capacity planning, and security. Another area where the book led to a greater understanding is that disasters aren't necessarily isolated events. There can be a devastating subsidiary disaster during a period of time afterwards due to the intricate linkages and dependencies of our complex world. Think mortgage meltdown & global financial crisis, which is still reverberating over 4 years later. Think tsunami & Fukushima meltdown. I highly recommend this book. It is highly accessible to generalists, and even more meaningful to someone with a foundational mathematical background.

[Download to continue reading...](#)

Bak's Sand Pile: Strategies for a Catastrophic World Sand Dollar, Sand Dollar: Tagalog & English Dual Text Live Sand Secrets: A Dialog on Living Sand Filtration Pile Design and Construction Rules of Thumb, Second Edition US Army, Technical Manual, TM 5-3895-265-14, HAMMER, PILE DRIVER, SELF-POWERED; DIESEL DRIVEN W/FU OIL TANK AND LUBRICATING OIL TANK, LINK-BELT SPEEDER ... (NSN 3895-00-014-0583), military manuals Slow Getting Up: A Story of NFL Survival from the Bottom of the Pile Poker Math: Simple and Basic Poker Math to Help You Crush the Competition, Pile Up Money and Feel Like a Professional Poker Player A Pile of Giggles 2: Clean Acronyms, Puns, and One-LinersÃ¢â€ž|For Teens and Their Families (Family Joke Books) (Volume 2) Catastrophic Care: Why Everything We Think We Know about Health Care Is Wrong Catastrophic Care: How American Health Care Killed My Father--and How We Can Fix It Exodus to Arthur: Catastrophic Encounters with Comets Lessons of Disaster: Policy Change after Catastrophic Events (American Government and Public Policy) Doomsday: The Science of Catastrophic Events Bug Out: The Complete Plan for Escaping a Catastrophic Disaster Before It's Too Late Catastrophic Events of the 2000s (Decade of the 2000s (Referencepoint)) The Book of Potentially Catastrophic Science: 50 Experiments for Daring Young Scientists (Irresponsible Science) Line in the Sand: A History of the Western U.S.-Mexico Border (America in the World) Salvation on Sand Mountain: Snake Handling and Redemption in Southern Appalachia Boy in the

Sand: Casey Donovan, All-American Sex Star Golf Shots: How to Easily Hit a Wide Variety of Shots like Stingers, Flop Shots, Wet Sand Shots, and Many More for Better Scoring

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)