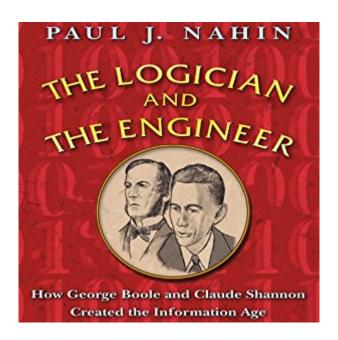
The book was found

The Logician And The Engineer





Synopsis

Boolean algebra, also called Boolean logic, is at the heart of the electronic circuitry in everything we use - from our computers and cars, to our kitchen gadgets and home appliances. How did a system of mathematics established in the Victorian era become the basis for such incredible technological achievements a century later? In The Logician and the Engineer, best-selling popular math writer Paul Nahin combines engaging problems and a colorful historical narrative to tell the remarkable story of how two men in different eras - mathematician and philosopher George Boole (1815-1864) and electrical engineer and pioneering information theorist Claude Shannon (1916-2001) advanced Boolean logic and became founding fathers of the electronic communications age. Presenting the dual biographies of Boole and Shannon, Nahin examines the history of Boole's innovative ideas, and considers how they led to Shannon's groundbreaking work on electrical relay circuits and information theory. Along the way, Nahin presents logic problems for listeners to solve and talks about the contributions of such key players as Georg Cantor, Tibor Rado, and Marvin Minsky - as well as the crucial role of Alan Turing's "Turing machine" - in the development of mathematical logic and data transmission. Nahin takes listeners from fundamental concepts to a deeper and more sophisticated understanding of how a modern digital machine such as the computer is constructed. Nahin also delves into the newest ideas in quantum mechanics and thermodynamics in order to explore computing's possible limitations in the 21st century and beyond. The Logician and the Engineer shows how a form of mathematical logic and the innovations of two men paved the way for the digital technology of the modern world.

Book Information

Audible Audio Edition

Listening Length: 7 hours and 43 minutes

Program Type: Audiobook

Version: Unabridged

Publisher: Audible Studios

Audible.com Release Date: October 15, 2012

Language: English

ASIN: B009QUXXVS

Best Sellers Rank: #95 in Books > Audible Audiobooks > Science > Mathematics #237 in Books > Biographies & Memoirs > Professionals & Academics > Computers & Technology #416 in Books > Computers & Technology > History & Culture > History

Customer Reviews

I found this book interesting and easy to read. It is written in a sort of drive by, essay style. There are many noteworthy (but sort of random) facts I did not know in this book. I checked it out of my local library, and I enjoyed reading it, but I was not looking for anything other than entertainment (infotainment?). I would not own it, however, because it warrants only one reading. It does not present anything in enough detail to justify buying it. It does not really live up to its title, either, but is more of a smattering of tidbits, facts, and reminiscences than a focused treatise on the 'creation of the information age' as it purports to be. Never mind that it is not a biography by any stretch. Still, I think the book would be fun (if you hang out with mathematicians, engineers, or programmers) as a conversation starter, or a list of topics to discuss. It is definitely entertaining, but probably not so much to non-techies. Should you trust a book about logic when itself contains muddled reasoning? I found one section of this book where the author apparently did not read what he wrote. In section 8.1 p 139 ff the author is explaining 'states' with the classic example problem of the two adults and two children on one side of a river, with a boat that holds only one adult or two children, the problem being how to get everyone over to the other side when anyone can row. Fair enough, he shows 10 'states' where everyone ends up safely on the other side of the river.

Paul Nahin's book, "The Logician and the Engineer," is deficient in several ways. Its first deficiency is that Nahin has relatively little to sayabout the putative subjects of his book, filling in with acongeries of topics of interest to himself. In spite of thebook's sub-title -- "How George Boole and Claude Shannon Createdthe Information Age" -- Boole and Shannon are minor actors inthis book. Of its more than 220 pages, one 24-page chapterprovides brief biographies of Boole and Shannon, and anotherchapter of the same length discusses Boolean algebra. The bulk ofthe book, however, is given over to digital circuit-design, probability, Turing machines, logic puzzles, and speculations about future computers. The reader gets a warning of strange things to come in Chapter 1, entitled "What You Need to Know to Read This Book." The chapterfocuses heavily, and weirdly, on potentiometers, ending with ademonstration of the parabolic shape of the resistance-function of two ganged potentiometers. Oddly for an electrical engineer, Nahin states that the term "rheostat" is "a rather old-fashionedword" for a potentiometer. Potentiometers and rheostats areactually quite different devices. Although both are three-terminal variable resistors, a potentiometer is a voltage-dividerthat uses all three terminals, whereas a rheostat uses twoterminals (the slider and one other terminal) to control currently connecting a variable resistance in series with the load.A second deficiency of this book is its pervasive carelessness.

Download to continue reading...

The Logician and the Engineer: How George Boole and Claude Shannon Created the Information Age The Logician and the Engineer Red Hat® Certified Technician & Engineer (RHCT and RHCE) Training Guide and Administrator's Reference Rubber Band Engineer: Build Slingshot Powered Rockets, Rubber Band Rifles, Unconventional Catapults, and More Guerrilla Gadgets from Household Hardware SpaceX and Tesla Motors Engineer Elon Musk (STEM Trailblazer Bios) A Software Engineer Learns HTML5, JavaScript and jQuery Archimedes: Innovative Mathematician, Engineer, and Inventor (Greatest Greek Philosophers) Altered Genes, Twisted Truth: How the Venture to Genetically Engineer Our Food Has Subverted Science, Corrupted Government, and Systematically Deceived the Public Engineer Ari and the Rosh Hashanah Ride (High Holidays) Red Hat Certified System Administrator & Engineer: Training Guide and a Quick Deskside Reference, Exams EX200 & EX300 Rosie Revere, Engineer Robotics Engineer (21st Century Skills Library: Cool Steam Careers) The Engineer's Error Coding Handbook Inside Jokes: Using Humor to Reverse-Engineer the Mind (MIT Press) Von Braun: Dreamer of Space, Engineer of War Robotics Engineer (Cool Careers) Hoghead: Industrial Ethnology of the Locomotive Engineer (Case Study in Cultural Anthropology) Electrical Engineer's Portable Handbook 45 YEARS OF TRUE RAILROAD STORIES: Told by Engineer John Cockrell The Certified Quality Engineer Handbook, Third Edition

Dmca