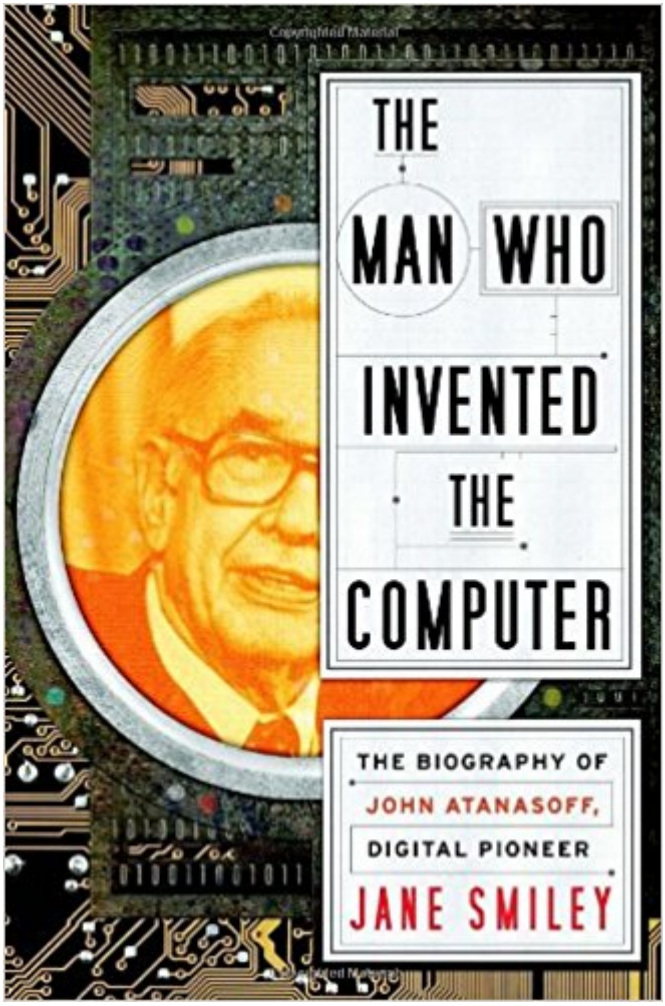
The Man Who Invented The Computer: The Biography Of John Atanasoff, Digital Pioneer



Synopsis

From one of our most acclaimed novelists, aÃ Â David-and-Goliath biography for the digital age.One night in the late 1930s, in a bar on the IllinoisÃ¢â ¬â œIowa border, John Vincent Atanasoff, a professor of physics at Iowa State University, after a frustrating day performing tedious mathematical calculations in his lab, hit on the idea that the binary number system and electronic switches, comÃ Â- bined with an array of capacitors on a moving drum to serve as memory, could yield a computing machine that would make his life and the lives of other similarly burdened scientists easier. Then he went back and built the machine. It worked. The whole world changed. Why donÃ¢â ¬â„¢t we know the name of John Atanasoff as well as we know those of Alan Turing and John von Neumann? Because he never patented the device, and because the developers of the far-better-known ENIAC almost certainly stole critical ideas from him. But in 1973 a court declared that the patent on that Sperry Rand device was invalid, opening the intellectual property gates to the computer revolution. Jane Smiley tells the quintessentially American story of the child of immigrants John Atanasoff with technical clarity and narrative drive, making the race to develop digital computing as gripping as a real-lifeÃ Â techno-thriller.

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Customer Reviews

Novelist Smiley explores the story of the now mostly forgotten Atanasoff, a brilliant and engaged physicist and engineer who first dreamed of and built a computational machine that was the prototype for the computer. With her dazzling storytelling, Smiley narrates the tale of a driven young

Iowa State University physics professor searching for a way to improve the speed and accuracy of mathematical calculations. In 1936, Atanasoff and his colleague, A.E. Brandt, modified an IBM tabulator--which used punched cards to add or subtract values represented by the holes in the cards--to get it to perform in a better, faster, and more accurate way. One December evening in 1937, Atanasoff, still struggling to hit upon a formula that would allow a machine to replicate the human brain, drove from Ames, Iowa, to Rock Island, Ill., where, over a bourbon and soda in a roadside tavern, he sketched his ideas for a machine that would become the computer. As with many scientific discoveries or inventions, however, the original genius behind the innovation is often obscured by later, more aggressive, and savvy scientists who covet the honor for themselves. Smiley weaves the stories of other claimants to the computer throne (Turing and von Neumann, among others) into Atanasoff's narrative, throwing into relief his own achievements. (Oct.)

Several popular works have dealt with the question of who invented the computer, and novelist Smiley has obviously read and deeply pondered them all. She emerges from her immersion in binary arithmetic, vacuum tubes, and eccentric geniuses with a scintillating narrative synthesis that agrees with the prevailing technical opinion (Who Invented the Computer? by Alice Burks, 2003) that John Atanasoff, a mechanical fiddler extraordinaire, had the first computer functioning by 1941. But off the beaten path in Ames, Iowa, it attracted little notice after its builder diverted into war work, as did another physicist who had seen AtanasoffÃ¢â ¬â„¢s machine: John Mauchly, whose idea-sprouting indiscipline Smiley draws as vividly as she does AtanasoffÃ¢â ¬â„¢s cantankerous technical tenacity. Mauchly was central to the construction of ENIAC, once considered the first computer. Did he filch AtanasoffÃ¢â ¬â„¢s ideas, asked litigation in the 1970s? Before arriving at the courthouse, Smiley integrates into the story profiles of the computer theorists and builders of the 1940s, including Alan Turing, John von Neumann, and Konrad Zuse. Told with self-propelling fluidity, SmileyÃ¢â ¬â„¢s fine account will certainly draw more than the technophile base due to her literary cachet. HIGH-DEMAND BACKSTORY: This biography written by acclaimed novelist Jane Smiley is the first entry in DoubledayÃ¢â ¬â„¢s Great Innovators series. --Gilbert Taylor

This was a good read. However, I'm more of the opinion that Konrad Zuse of Germany was first. However, Zuse is overlooked since he was a German citizen in Nazi Germany when he was inventing this computer. [The good news is Zuse's computers weren't co-opted by the Nazi military.]It is too bad that the University destroyed Anastoff's invention. Fairly happy with this

purchase!

Excellent - riveting to read, giving the larger context of the work other persons were doing on similar computer development at the time of 1920 through 1950, and clearly showing that the actual digital systems for software and hardware we use today were from the work of John V. Atanasoff at Iowa State University, in Ames Iowa, NOT the ENIAC machine at the University of Pennsyvania.

This book is pretty tough reading. I don’t mean that the technical subject matter is tough to read about, though it is somewhat challenging. Rather, the toughness stems, I think, from a simple fact: Jane Smiley is a novelist-- and an excellent one, too-- but writing nonfiction requires a different skill set.I’ll just ignore all of the claims about the book’s alleged errors and the author’s supposed biases; they’ve been dealt with at considerable length in other reviews, so I think that those dead horses has been beaten sufficiently. It’s clear to me that the modern computer had many parents. The book is about the claim of one particular parent that his work was essentially stolen by another particular parent. A federal court decision resolved that issue in the early 1970s, and since that decision was never appealed, it still stands.Smiley spends most of the book describing the efforts of a few of the computer’s parents, and she agrees with the eventual court decision as to who "invented" the computer. However, her own account makes it very clear that, despite her conclusion, there actually was no single inventor. Rather, the computer evolved as numerous people worked to create workable machines, mostly in order to further their nations’ efforts in World War II.Smiley runs aground by attempting to combine an essentially historical account of the evolution of technical developments with a character-driven narrative centered on her protagonist, John V. Atanasoff. For me, it just didn’t work well. There are too many attempts to look into the motives and emotions of the central characters, and these inferences don’t further the technical account at all. In short, she seems to have written two books at once and attempted to merge them.The result for me was that I really didn’t know the characters much better than I did when I started the book, and I really didn’t have a much better grip on the nature of the early computers, either.Bottom line: It’s OK, but there’s a better book about this subject yet to be written.

One of the best on this aspect of how digital computers were in the earliest days.

wonderful story

Excellent summary of the important facts in the early development of computers.

A commentaryI REALLY do not want to get into the ripe tomato throwingcontest of "Who Invented ... ". The protagonistsusually ignore various relevant conditions.1) There is an attempt in the patent procedure to verify that the patent applicant is in fact "the inventor" - in part, this is the reason for "disclosure of prior art" - to help the patent office with this verification. BUT - the above, although necessary, is not sufficient, - including timely filing - Mauchly - paying all the fees - Iowa State - not diddling too much with the process to your advantage - ala Lemelson ;-)) There is no question by anyone that the ENIAC patent application was filed after the required date !! There were confusing circumstances Moore School, Army, Security, ... but - There is probably no argument that Atanasoff supplied patent information to Iowa State, a/the major stake holder, and patent attorney which let the patent process lapse.2) The lack of a patent is almost irrelevant (in my view) to actual invention Many great inventions, from acclaimed inventors, had no patent example - Ben Franklin, (no slouch at acquiring money, self financed ambassador to England and later France)specifically gave his lightning rod and efficient stove to the public by not patenting those very useful devices :-)) Other actual inventors/innovators have been stripped of patent rights on procedural grounds - * No one * argues that ENIAC was not very innovative !! and it did the intended task very well :-))3) In a patent trial, the protagonists should try to be credible. By his own admission, Mauchly intended to be "forgetful" - and was tripped up - in court - multiple time by the other side. This is not likely to impress to any judge who also likely resents- the violation of the witnesses oath - skating on or actual perjury - - the intentional waste of the court's time.4) And what is a "computer" anyway ? assuming we ignore humans, what adjectives do we throw into the fray?? - "Electronic" ?? - why be restrictive ?? - "Stored Program" ?? - and the original ENIAC wasn't - - is the later capability of executing function switch settingsas instruction legal as "stored"? - "Turing Complete" ?? - ... - "Index Registers" ?? - "unthinkable without ;-)" currently - "Able to Run Flight Simulator" ?? - OK - just teasing - So, if you refuse to pick your set of adjectives, why get into a discussion/argument - unless you love throwing ripe tomatoes -I've been very interested in the ABC machine [...] and many other machines [...] [...] [...] [...] [...]for a few years.John Gustafson recommended I read Smiley's "The Man Who Invented The Computer".I replied that a book with that title was too silly to bother with.John persisted, saying that the title wasimposed by the publisher, that a better title would be "The Men Who Invented The Computer".With that qualification I read the sample on ,found the sample not bad, and that John had written the appendices.I complained that the author seemed not a "computer techie" - the Babbage Difference Engine(s) designs are NOT analog.John said that he

must have missed that in proof reading/correcting the book.So I ordered the book out of courtesy/curiosity.While waiting, I refreshed my memory with two Atanosoff/ABC books."The First Electronic Computer: The Atanasoff Story" by the two Burks"Atanasoff: Forgotten Father of the Computer" by Mollenhoff And read on-line oral histories [...]and on-line reviews.One of those reviews prompted me to re-read chapter eight in "ENIAC" by McCartney -of "The Trial". I would think all sides would be satisfied,given the specifics of U.S. patent law - which many protagonists ignore.An aside - about 8 years ago, Mauchly's widow"Kay" McNulty Mauchly Antonelli spoke at a "Women in Computing"presentation at Mills College. A charming lady,who had been one of the original programmers of the ENIAC.When I asked her of her view of Atanasoff, she replied"We do not mention that name in our home."She said she had never seen Monterey California, so I offered to show her that beautiful place - Unfortunately, the next day, her daughter had a bad cold, so Kay phoned to cancel. :-((Ah - the book - has arrived -Rather folksy - easy reading - lots of details of lots of the computer "inventors".One of the reviewers complained of no citations.Indeed - there were no little superscript numbers. (Instead of the superscripts, to signal you in the text, there are page numbers with quoted text with citations in "Notes" at the end of the book. I prefer the little numbers.)I appreciated the author's comparison of the lives of the various people involved with trying to solve computational problems from about 1935 to 1948 using machinery.A was doing this while B was doing that.I had read individual biographies without comparing their lives and problems in time line.Reading the last part of the book is disturbing.It attempts to describe the swirling acrimonious confusing turbulencesurrounding who (if any "ONE") "invented" the "computer".One wonders if the world would have been amore pleasant place if: a) we agree to define "computer", with a selection of appropriate adjectives such as "stored program", "electronic", "general purpose", ... b) if Babbage had patented his ideas c) if Zuse's German patent had been more quickly widely known. d) if Iowa State had paid the patent attorney to file Atanosoff's patent application. e) ... x) we all understand U.S. patent law better. y) ... z) we try to solve today's problemsThe author took on a formidable/impossible task - I think succeeded rather well for a general audience book.I'll give a 4 rating - probably not 3+ , even though I'm a techie.

Security iWoz: How I Invented the Personal Computer and Had Fun Along the Way Who Invented the Computer? (Breakthroughs in Science and Technology) Digital Storytelling: Capturing Lives, Creating Community (Digital Imaging and Computer Vision) The Tycoons: How Andrew Carnegie, John D. Rockefeller, Jay Gould, and J. P. Morgan Invented the American Supereconomy Bitcoin Basics: Cryptocurrency, Blockchain And The New Digital Economy (Digital currency, Cryptocurrency, Blockchain, Digital Economy) Photography: Complete Guide to Taking Stunning,Beautiful Digital Pictures (photography, stunning digital, great pictures, digital photography, portrait ... landscape photography, good pictures) Photography: DSLR Photography Secrets and Tips to Taking Beautiful Digital Pictures (Photography, DSLR, cameras, digital photography, digital pictures, portrait photography, landscape photography) The Iron Man Collection: Marvel's Iron Man, Marvel's Iron Man 2, and Marvel's Iron Man 3 The Man Who Invented Fidel: Castro, Cuba, and Herbert L. Matthews of The New York Times The man who invented baseball Presenting Buffalo Bill: The Man Who Invented the Wild West The Man Who Invented Rock Hudson: The Pretty Boys and Dirty Deals of Henry Willson The Man Who Invented Vegemite Comfort at Your Computer: Body Awareness Training for Pain-Free Computer Use Crs Computer-Related Syndrome: The Prevention & Treatment of Computer-Related Injuries