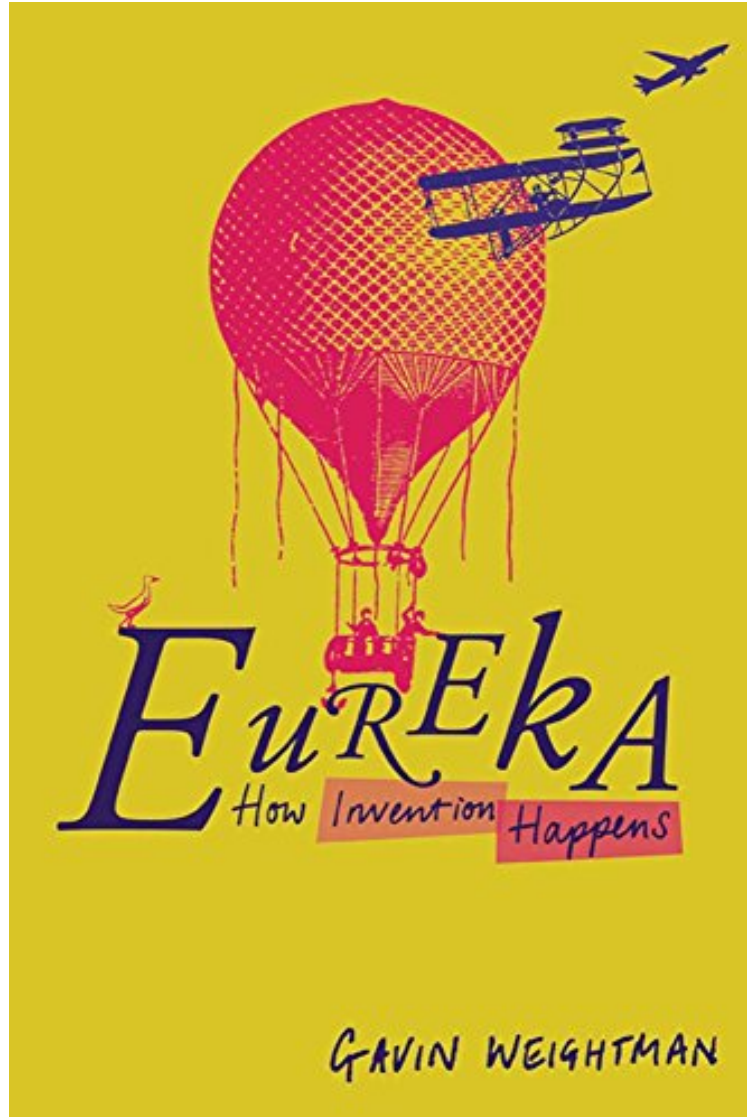


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Eureka: How Invention Happens

Gavin Weightman

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Gavin Weightman : Eureka: How Invention Happens before purchasing it in order to gage whether or not it would be worth my time, and all praised Eureka: How Invention Happens:

2 of 2 people found the following review helpful. A Fun Look at How Things Are Really InventedBy Andy in WashingtonI am an Engineer, and have always had an interest in the history of technology and invention. I never cease to be amazed how things are invented by the "wrong" people; how someone trying to solve one problem inadvertently solves a completely unrelated "problem"; or how problems that no one knew existed are "solved". Gavin Weightman examines a few famous inventions and how they came about.=== The Good Stuff ===* The author would make the case that, while there is no such thing as a typical path to invention, there is a

common thread among many of the world's greatest breakthroughs. The initial discovery, the "aha moment" often comes from a total amateur, or someone not skilled in the things he is inventing. Later, after the pioneer has proven that something is possible, persons more skilled in the particular technology take over and refine and perfect the technology. For example, Marconi, who "invented" transatlantic radio transmission, never could articulate how it worked. It is not obvious that he cared.* The book examines a number of "earth-changing" inventions such as television, powered flight and the cellular phone. In each case, the original article built upon many previous discoveries and inventions, and persons or companies other than the original inventor later developed a consumer technology. As an example, while Philo Farnsworth likely invented the modern television, it was David Sarnoff and a few hundred people at RCA that made it into a consumer friendly technology.* The author does a nice job of explaining the genius of the inventions discussed, but without turning the book into a technical journal. The scientific and technical terms used should be understandable by anyone with a high-school education. Weightman writes in an easy-to-read style, and keeps the narrative informal and easy-to-read. He also does an excellent job of tying together various parts of the story, and helping the reader sort through the many conflicting claims for each invention.=== The Not-So-Good Stuff ===* The only complaint I have is that Weightman creates some arbitrary boundaries around inventions in order to support his theory. For example, in discussing the invention of a cell phone, the author describes how the work of Marconi, Bell, Faraday and others all went in to the various radio and telephony technologies that make up the modern cell phone. But, I would argue that the most important part of the cell phone is the cheap and ubiquitous switching networks behind it. This is the technology that lets me use hundreds of hours of airtime for a nominal cost. And that wasn't the work of a single inventor, but entire industries.* A similar argument could be made for how one determines when an invention is really "invented". The Wright Brothers flew a couple hundred feet at Kitty Hawk. Is that really an airplane? Sure, it was the proof-of-concept, and had a number of "eureka" moments contained in it and was the springboard for F-18's and 747's. But, on its own, it was about as useful as a kite.=== Summary ===My objections are mild and perhaps nitpicky. I enjoyed the book, and learned a few things that I never knew before about any number of famous inventions. It is certainly a fun read for any geek, or wanna-be geek, and the pages flew by way too soon.=== Disclaimer ===I was able to read an advance copy through the courtesy of the publisher and NetGalley.0 of 0 people found the following review helpful. Excellent Book!By Filomena DaleandroVery insightful and Inspiring! Excellent Book!!!

Tracing the long pre-history of five twentieth-century inventions which have transformed our lives, Gavin Weightman reveals a fantastic cast of scientists and inspired amateurs whose ingenuity has given us the airplane, television, bar code, personal computer, and mobile phone. Not one of these inventions can be attributed to a lone genius who experiences a moment of inspiration. Nearly all innovations exist in the imagination before they are finally made to work by the hard graft of inventors who draw on the discoveries of others. While the discoveries of scientists have provided vital knowledge which has made innovation possible, it is a revelation of Weightman's study that it is more often than not the amateur who enjoys the "eureka moment" when an invention works for the first time. Filled with fascinating stories of struggle, rivalry, and the ingenuity of both famous inventors and hundreds of forgotten people, Weightman's captivating work is a triumph of storytelling that offers a fresh take on the making of our modern world.

...the book is sweetly written, carried along by unobtrusive good humour, a deep intuition for the history of ideas and a liberal salting of steam-punk esoterica.—Oliver Moody, the Times.