

From slashdot:

The below review was contributed by reader Lozzer, and deals with a book about one of the most fascinating figures in mathematics history (and cryptographic history in particular). Nearly half a century after his suicide, Alan Turing is still fascinating and relevant on several levels.

I recently finished reading Andrew Hodge's excellent biography of Alan Turing. The second edition was printed in 1992. It included updates based on material declassified by the British Government (Amazon has a 2000 edition, I'm not sure if this is a rewrite or a reprint). Weighing in at nearly 600 pages the book is not for the faint hearted Geek.

For our younger Script Kiddies I'll give a brief overview of Turing's life and what he has to do with computing. He was born in London in 1912 and christened Alan Mathison Turing. After a public school up-bringing he studied maths at King's College, Cambridge from 1931. In 1935 he solved part of one of the great mathematical problems of the time: Hilbert's Second Problem. Godel had solved the first two parts. Turing solved the last part about deciding which mathematical statements were true. His construction for solving this problem was the Turing Machine. This model forms the basis for all modern day computers.

Between this breakthrough and the war, Turing spent a couple of years at Princeton, where he studied under Alonzo Church and John von Neumann, both of whom were pioneers in the computing field.

With the onset of war in 1939 Turing found himself employed as a code breaker at Bletchley Park (which is only a couple of miles from where I live). This is where Turing's theoretical knowledge began to take physical shape. By the end of the war the Colossus had been built. This is sometimes touted as the first computer, though I'll leave that to people with flame retardant underpants. Suffice it to say this "computer" could only be programmed by reconfiguring the hardware.

After the war Turing gravitated to the University of Manchester where he took a role in developing the first prototype computer that was "software" programmable. After that he became a programmer, using the computer to help with mathematical theories. He was convicted of Gross Indecency (Turing was a homosexual) in 1952, and had to suffer a year of oestrogen injections to "cure" him. He committed suicide in 1954.

After that potted history, back to the book. It draws on a lot of sources and manages to bring them together in a very coherent whole. As well as providing a British view of the history of computing it also gives an interesting perspective on the changes in society over the years. The book also conveys Turing's breadth of knowledge and vision well - while most computer users were thinking of mathematical problems he was into AI, chess and other abstract symbolism. He figured out the need for subroutines, was the first to use binary (he noted that routines

could change the external notation for human consumption, but continued to use 32 bit numbers entered in reverse order himself). He considered hardware acceleration. The author does well in explaining the scientific portions of the book in a clear and correct fashion. From a Geek perspective the text is possibly a bit dense, with some less interesting chunks (the homosexual aspects of Turing's life, for example, have less impact now than when the book was first published).

I recommend the book if you are interested in some of the wider aspects of Turing's life. For me, being British, having a Cambridge maths degree (ooh shameless), and living near Bletchley brings a lot more of the book to life than it may for most. If you are only interested in Turing's impact on the world of computers there are good online resources for this. Maybe, however, you won't find out why Christopher Strachey was the world's first Hacker."