

**Alan Mathison Turing** was an undisputed genius. Turing was a British mathematician, computer scientist, cryptanalyst, philosopher, and theoretical biologist. Though born in 1912, and tragically died in 1954, he is known as the father of theoretical computer science and artificial intelligence! In fact, his Turing Machine was the earliest model of an algorithm calculator, the precursor to the ones that your favourite social media sites use! The first theoretical model of a Turing Machine was in 1936, when Turing was only 24 years old.

During World War II, Turing worked for the British government devising techniques to increase the speed and frequency of code-breaking. He was instrumental in breaking many intercepted coded messages during some crucial battles, including The Battle of The Atlantic, the longest military campaign of WWII, lasting nearly the length of the war itself! His most notable work during the war, however, is his work on Enigma, allowing the Allies to read, in real-time, the encrypted messages regarding Axis' strategies and movements. Many of Turing's accomplishments will never be known, as they remain covered by the Official Secrets Act of 1939.

In 1952, Turing was accused of, and prosecuted for, homosexual acts. In lieu of a prison sentence, he underwent 'chemical castration', an estrogen-based hormone treatment purported to reduce libido. Just before his 42nd birthday, Turing died of cyanide poisoning. His death was ruled as suicide.

In 2009, then British Prime Minister Gordon Brown, made a public apology for the terrible way that Turing had been treated. Following that, in 2013, Queen Elizabeth II granted him a posthumous pardon. In 2019, a documentary of Turing was released by the BBC, prompting the audience to vote him as 'one of the greatest people of the 20th century'.

Turing is acknowledged by statuary, annual awards, and innovations, and is featured on the Bank of England's £50 bank note. The computer room at King's College in Cambridge is even named after him. It is, however, his legacy in mathematics and computer science that is without equal. It is impossible to look at his extensive list of accomplishments and innovations, and not wonder how much the world may have been denied by a life cut tragically short.