

# Alan Turing interesting facts



## Early life

Alan Mathison Turing was a British mathematician, logician, cryptanalyst, and computer scientist.

He was born in *Maida Vale, London* on the 23 June 1912 and died on the 7 June 1954.

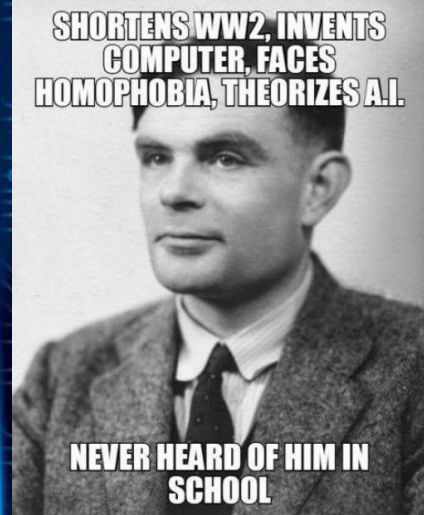
He is widely regarded as the *father of computer science and artificial intelligence*.

## Early life

*Turing* showed remarkable ability in Mathematics and Science at an early age.

At the age of 14 he could solve advanced problems without having even studied elementary calculus.

Aged 16, he came across Albert Einstein's work.



Our Education System. Alan Turing, everyone.

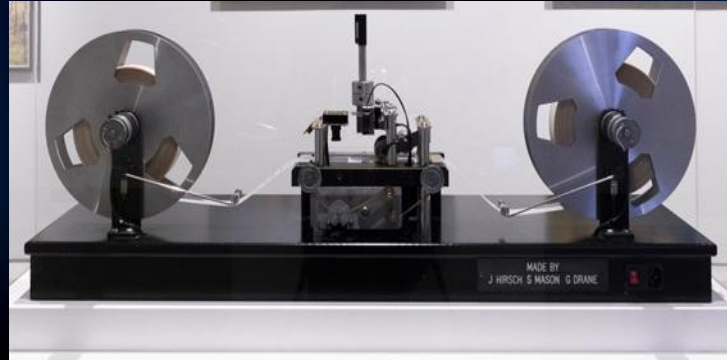
Are you HUMAN?





# Turing Machine

Was invented in 1936, it is an idealised computing device consisting of a read/write head (or 'scanner') with a paper tape passing through it. The tape is divided into squares, each square bearing a single symbol, 0' or '1', for example.



## The Bombe

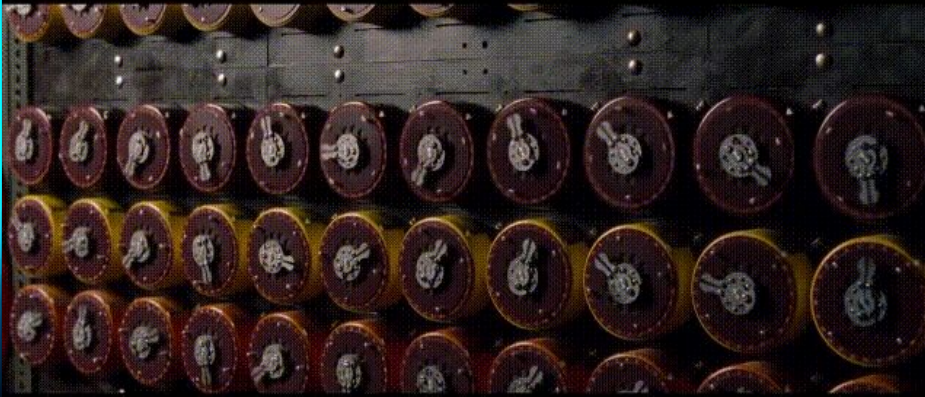
On 4 September 1939, the day after the UK declared war on Germany, Turing reported to *Bletchley Park*, the wartime station of Government Code and Cypher School (GCCS).

During *World War II* he was the principal man responsible for breaking the Enigma code used by the Germans.

It is estimated that his *bombe device* shortened the war in Europe by two to four years.

# The Bombe

*The bombe*, with an enhancement suggested by mathematician Gordon Welchman, became one of the primary tools, and the major automated one, used to attack Enigma-enciphered messages.





## Working in the US

Turing travelled to the United States in November 1942 and worked with US Navy cryptanalysts on the naval Enigma and bombe construction in Washington.

During this trip, he also assisted at Bell Labs with the development of secure speech devices.





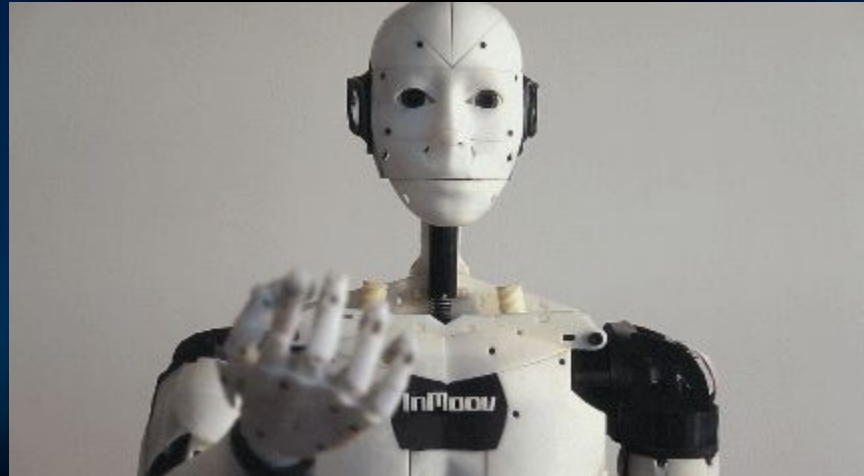
# Unorganized machine

An unorganized machine is a concept mentioned in a 1948 report in which Alan Turing suggested that the infant human cortex was what he called an "unorganised machine".

Turing may have been the first to suggest using randomly connected networks of neuron-like nodes to perform computation, and proposed the construction of large, brain-like networks of such neurons capable of being trained as one would teach a child.

# The Turing test

The Turing test, developed in 1950, is a test of a machine's ability to exhibit intelligent behavior equivalent to, or indistinguishable from, that of a human.



## Personal life

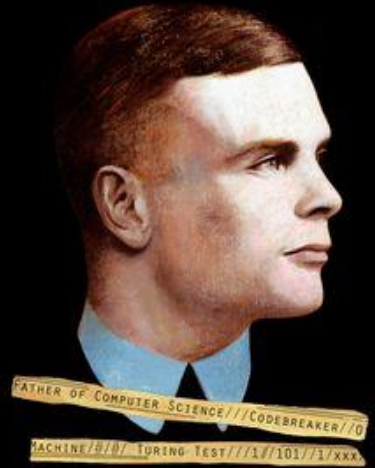
In 1952 Turing was convicted for homosexual acts, and given a choice between imprisonment and probation, on the condition that he underwent hormonal treatment designed to reduce libido (*chemical castration*).



## Death

On 8 June 1954, Turing's housekeeper found him dead. He had died the previous day.

A post-mortem examination established that the cause of death was cyanide poisoning.





## Government apology

In 2009, Liberal Democrat MP, *John Graham-Cumming* started an online petition calling for an official apology from the government for prosecuting Alan Turing as a homosexual.

On September 10, Prime Minister Gordon Brown apologized for the then government and described the treatment given to Turing as “utterly unfair”.

## Sources

<https://www.youtube.com/watch?v=7TycxwFmdB0>

<https://learnodo-newtonic.com/alan-turing-facts>

[https://en.wikipedia.org/wiki/Alan\\_Turing](https://en.wikipedia.org/wiki/Alan_Turing)

