

**"THOSE WHO CAN IMAGINE ANYTHING, CAN CREATE THE IMPOSSIBLE."**  
— ALAN TURING

# Alan Turing: Creator of modern computing

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## Who was Alan Turing?

Alan Turing was not a well known figure during his lifetime.

But today he is famous for being an eccentric yet passionate British mathematician, who conceived and played a crucial part in the Allied victory over Nazi Germany in WW2.

He was also a victim of mid-20th Century attitudes to homosexuality – he was chemically castrated by the British government.

1926

## Discouraged at school

Alan Turing spent much of his early life separated from his parents, as his father worked in the British administration of India.

At 13 years old, he was sent to Sherborne School, a large boarding school in Dorset. The rigid education system gave his free-ranging scientific mind little encouragement, so Turing studied advanced modern scientific ideas, such as relativity, on his own, running far ahead of the school syllabus.



Alan Turing, aged 15, at Westcott House, Sherborne School.

1930

## Devastated but inspired by his friend's death

The situation changed when Alan Turing became intensely attracted to another able pupil, Christopher Morcom.

He was inspired to communicate more and also to become an academic success. But Christopher died suddenly from tuberculosis. Devastated, Turing wanted to believe that Christopher's mind somehow lived on. His emotional turmoil involved a scientific fascination with the problem of mind and matter.



1936

## Founder of modern computing

In 1936, Turing published a paper that is now recognised as the foundation of computer science.

Turing analysed what it meant for a human to follow a definite method or procedure to perform a task. For this purpose, he invented the idea of a 'Universal Machine' that could decode and perform any set of instructions. Ten years later he would turn this revolutionary idea into a practical plan for an electronic computer, capable of running any program.



Jim Al-Khalili explains how Turing invented the idea of feeding one machine different instructions. Clip from Order and Disorder (BBC Four).

## Queen gives royal pardon to Alan Turing, the WWII codebreaking hero who was convicted for being gay then sterilised by the state

- Alan Turing led the way in cracking the Enigma codes at Bletchley Park
- But he took his own life after 1952 conviction led to his chemical castration
- It is only the fourth Royal pardon since the end of the Second World War
- Gay rights campaigner Peter Tatchell said 50 000 more apologies are due

BY TIM SHIPMAN  
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