

Possibly an inadequate title, the Founder of Computer Science, is what Alan Mathison Turing is called by the technological community. Born in a nursing home in Paddington, London with the strong desire to learn, Turing would soon grow to be one of the most ingenious mathematical logicians ever to grace his field.

Turing was a man who accomplished his successes without outside motivation to do so. His family, being an upper-middle-class group with no scientific knowledge or interests, left Turing to develop his interests for mathematics and science on his own. This interest is believed to have been sparked by a book he read at around the age of fourteen entitled, "Natural Wonders Every Child Should Know"(Hodges 22). Through reading books of this type and in honor of a deceased intellectual companion named Christopher Morcom, Turing gained the drive to make strides in the world of technology.

Turing's received his first public recognition in the field of mathematics directly after graduating from King's College, when he won a Smith's prize for his work on probability theory in 1936 (Kowalik 2). It was around this time when Turing became intrigued by the mathematical question of decidability, otherwise known as the Entscheidungsproblem. This problem asked the question, "could there exist, at least in principle, any definite method or process by which all mathematical questions could be decided?" With his amazing mathematical ingenuity, Turing was able to supply a precise method to solve this almost impossible problem.

The method that Turing constructed became the foundation of modern computation, and was later called the Turing Machine. It was a machine that Turing claimed could equal or exceed the logic of a person working on a set of logical instructions. The function of the machine was to accept algorithms, as we call them today, and solve problems dealing with computable numbers (Kowalik 2). He first released his findings in a paper entitled, "On Computable Numbers with an Application to the Entscheidungsproblem." Although this was probably Turing's greatest accomplishment, he soon became interested in ciphers used during wartime, and would lend a helping hand to the British forces during WWII (Turing 2).

Early on in the war, Germany had developed something called an Enigma Machine, which generated undecipherable code that was transmitted between German forces. Upon the entrance of Britain into the war, Turing took up the job of trying to crack the codes of the Enigma Machine. By 1939 with the help of a Polish mathematician named Welchman, Turing built the Bombe, a machine that was able to translate the signals of the Enigma. Furthermore, Turing also placed a huge effort towards encoding signals that were sent between Franklin Roosevelt and Winston Churchill.

Following his work during the war, Turing took the job as Deputy Director of the computing laboratory at Manchester University. Here he drew up his Morphogenic theory of growth and form in biology (A. Turing 4). It was during this time that Turing was arrested for having a sexual relationship with a young Manchester man. Rather than go to prison, Turing opted to receive injections of oestrogen to neutralize his libido, for a period of one year. Despite this

setback, he continued his work on the morphogenic theory, and set a goal to discover the reason for the appearance of Fibonacci numbers in leaf patterns of plants. Unfortunately Turing's work did not extend much further than this.

After a life full of contributions to the world of computability Turing's time came to a sudden end. On June 8, 1954 Alan Turing was found dead by his cleaner. He had died of cyanide poisoning and was found with a half-eaten apple beside his body. The coroner's report pointed to suicide, an unfitting end to such a valuable life.

#### Works Cited

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