



There are several contenders for the title of “Father of Computing” and one of them, Professor Sir Maurice Wilkes, passed away on 29th November aged 97.

The contention exists because of the way that computer technology developed. The ‘fathers’ were responsible for the stages of development that were essential to enable us to reach the point at which the technology stands today.

The whole story of its progress is full of staggering leaps of imagination and determination, never mind secrecy, desperate urgency and totally unexpected inventions.

Mathematics had been around for centuries and fine minds had enabled quite complex things to be understood and capable of calculation, such as navigation tables for sea-going trade.

Unfortunately the reliability of the computation of the tables had to be carried out by people – and people are prone to make errors. The errors added to the normal seagoing risks, resulting in shipwrecks, loss of life and fortune.

The first ‘father’ was Charles Babbage (1791 – 1871) who worked to mechanise the intricate calculations. His ideas were sound and his design worked, (proved by the Science Museum in 1991), but he was too far ahead of his time to be able to build his full design.

Skip to the 1940s when Alan Turing (1912 – 1954), an extraordinarily able mathematician, worked at Bletchley Park and helped decipher German wartime codes. He set out how a machine could do calculations electronically. His contribution earned him the name of ‘father of modern computing’.

The secretive nature of wartime development meant that who was first with what was often uncertain. This was further complicated by the changing definition of what comprised a computer. Early machines had to be laboriously re-programmed to suit each new problem. Ways were devised to generalise the instructions and store them within the machine. The decimal notation, using ten digits, was replaced by binary, using just two.

Building on the work of others and the ideas of his predecessors at Cambridge, Professor Wilkes constructed the first computer that could store both the data and the programme of instructions within the machine.

It was 1949 and the machine had 3000 vacuum valves and mercury tubes for memory storage.

Professor Wilkes was first to be able to offer a computer service to others; he was first to recognise that programmes needed to be tested (what today we call ‘debugged’).

Magnetic storage has since replaced mercury tubes and thousands of valves have been replaced by many millions of transistors. The once roomful of metal racks has been condensed to a laptop that is much faster, vastly more powerful and costs a vanishingly small amount by comparison.

It can instantly link wirelessly to other computers world wide and is changing our lives. What will the next ‘father’ bring forth?

The next meeting is on Tuesday 14th December at All Saints Lesser Hall, Victoria Square, Penarth 7.30 for 8.00pm .It will be a social evening with Chips and Chats after a fun quiz by Mike J. Visitors welcome. For more information ring Howard on 029 20708439.

In Brief

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