LEO II

Saturday 18th July 2015
To
Saturday 10th October 2015
Corby Heritage Centre
75-77 High Street
Corby
Northants, NN17 1UU

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Corby & The Electronic Brain Exhibition Begins
Saturday 18th July 2015
At
Corby Heritage Centre
75–77 High Street, Corby, NN17 1UU
Come along and reminisce!
Corby and The Electronic Brain, LEO II

The 1950s
In the 1950s Corby was a very different town to what you see around you today, its population was just fewer than 17,000, rationing was still in place and the average weekly wage was £7.50. Variety Theatre and Cinema were the main forms of entertainment but technology was beginning to take hold of public imagination, the 1951 Festival of Britain introduced the public to future technology. Television was the most advanced item the average person would have any contact with and computers were still the talk of Science Fiction for many in 1950s Britain.

Technology
Mechanical calculating devices would be used in work places where large numbers of calculations needed to be made; exposure to electronics was still the reserve of Universities and the Military. Technology in the 1950’s was expensive and few households had access to electronics or computing devices. Most school children would receive their knowledge of computers from comics such as Dan Dare and Eagle or if they were fortunate enough they might have visited the 1951 Festival of Britain which showcased the latest technology.
Now time for some colouring in

**Stewarts and Lloyds**

So why did Corby’s Stewarts and Lloyds in 1957 take the very risky step of buying an almost unproven technology for £65,000 commonly called the Electronic Brain by the Newspapers but known today as computers. Stewarts and Lloyds in the 50s was at its peak and one of its employees Mr Neil Pollock presented a report to the Chairman’s Conference in May 1955 with a bold plan to buy a computer to deal with Payroll and stock control at the company, this would save the company many tens of thousands of pounds and it duly did save them money but many thousands more than their original estimations. The computer they bought was manufactured by food retailer and cake manufacturer J. Lyons and was the third commercial computer sold in the world at that time; its name was LEO II or Lyons Electronic Office.
Lyons Tea Shops

J. Lyons & Co of London were a large catering company in the 1950s with over 250 Lyons tea shops for which they are perhaps most fondly remembered. Their catering empire also included upmarket Restaurants, six in Oxford Street, London alone; they had the famous brand of Lyons Corner shops, hotels and the Trocadero. Lyons produced the food for its cafes and sold to the wider commercial market with brands such as Red and Green Label, Kup Cakes, Lyons Maid Ice Cream and catered events from Masonic meetings to Buckingham Palace.

Lyons was this unassuming and quaint company of tea shops that strode into the computer age with typical British eccentricity and LEO (Lyons Electronic Office) was the world’s first success at managing production using computers.

An Electronic Brain called LEO

Many newspapers referred to computers as electronic brains that would free humans from everyday tasks such as, cooking and cleaning these task would be replaced by computer controlled Robots.

It was John Simmons a Cambridge Science Graduate employed by Lyons who saw the potential of computers to perform repetitive work tasks such as calculating and order processing, he believed that people were wasted on these tasks and could be usefully employed elsewhere.

A trip to the USA by two of Simmons closest colleagues Oliver Standingford and Raymond Thompson set Lyons on the road to becoming the first company to produce computers specifically for the commercial sector.

Grace Murray Hopper (December 9, 1906 – January 1, 1992) was an American computer scientist and United States Navy Rear Admiral. She was one of the first programmers of the Harvard Mark I computer in 1944, invented the first compiler for a computer programming language and was one of those who popularised the idea of machine-independent programming languages which led to the development of COBOL (Common Business Oriented Language), one of the first high-level programming languages. She is credited with popularising the term "debugging" for fixing computer glitches (inspired by an actual moth removed from the computer).
Women in Computing

The contribution of women in computing and technology is sometimes overlooked and it could be said they are not as well known as their male counterparts, however their contribution is critical to the development of the computer.

Hedy Lamarr; born Hedwig Eva Maria Kiesler, (9th November 1914 – 19th January 2000) was an Austrian and American film actress and inventor. During her first marriage, Lamarr developed a keen interest in applied science, and bored by her acting career, utilized this knowledge as an inventor. At the commencement of World War II, keen to aid the Allied war effort, she identified jamming of Allied radio communications by the Axis as a particular problem and with composer George Antheil, developed spread spectrum and frequency hopping technology to defeat it though the US Navy did not adopt the technology until the 1960s, the principles of her work are now incorporated into modern Wi-Fi, CDMA and Bluetooth technology and this work led to her being inducted into the National Inventors Hall of Fame in 2014.
Do the numbers stack up (Facts and Figures)

In 1951 the LEO I computer was operational and ran the world's first regular routine office computer job

LEO can perform calculations thousands of times faster than swiftest desk operated calculator in the 1950’s

Leo II cost Stewarts and Lloyds £65,000 in 1957 and a further estimated £25,000 to install

Stewarts and Lloyds ran their LEO computer from June 1958 to 1971, 13 years

Produced 2,600 miles of paper tape

Worked 70,000 hours

Produced 8,800,000 payslips

Issued 8,800,000 invoices and 124,000,000 punch cards

Image above: Some of the 124 million punch cards used by LEO.
Commodore Success

During the 1980's, computers underwent many changes, by getting smaller and cheaper. Before this the ability to own a computer was restricted by either size or price, with the introduction of new technologies, for example the VIC 20 chip as found in the Commodore 64, smaller units with lower prices were now within reach of the person in the street.

Corby's involvement with Commodore began in 1984. The economic slump caused by the closure of the steelworks encouraged the council to look for new businesses, however, after 2 years the factory closed, the computer market was fierce and Commodore was an early victim.

As evidence of its success, twenty two million Commodore 64's had been sold by 1992 ten years after its original release.

John Pinkerton was Chief Engineer at Lyons Computers a natural engineer, Pinkerton's philosophy was not to change anything in the Edsac's design which he did not fully understand; he later remarked, "Since we didn't understand very well why it was designed, we didn't make very many changes at all." In fact, Pinkerton made several key innovations, the most important of which was reliability. The 6,000-valve Leo was to function at the heart of an operational business and had to be available day in, day out, with no significant breakdowns. The techniques Pinkerton developed, such as the "marginal testing" of components that were about to fail, was classic engineering work that became standard industry practice.
Commodore
Corby and its connection with computers continued after LEO II stopped its work at Stewarts and Lloyds in 1971, during Corby's darkest days soon after the closure of steelmaking in the town in 1979, Commodore Computers brought production of their new Commodore 64 to the town and again Corby was at the forefront of technology with the Commodore selling in excess of 20 million units.

Advert for Commodore Computers in the early 1980s