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The world's first business computer

by Betty Dick

My first job after university was in the Operational Research department of the Reed Paper Group and some of our projects involved a fair number of calculations. As the only woman on the team I was often deputed to carry them out on a large electric calculating machine. I complained - but truth to tell, I quite enjoyed using the Monroe as it was called. There came a project that needed a lot of data processed quickly and so the team went to London to the IBM bureau and I learned to write a programme (60's spelling) in FORTRAN. Soon afterwards I learned that J Lyons & Co. were looking for people to work on their new Leo 3 computer and I was very happy to be taken on.



J. Lyons & Co. was a vast operator in hospitality and catering – the last people you would expect to be world pioneers in computing. Most of our members will have encountered some of their products and the older among us may have visited a Tea Shop or Corner House or stayed in one of their hotels. The company was set up in the 19th Century and had a philosophy of doing as much as possible in house. They were also heavily involved in collecting data and improving management systems.

Thus it was that they decided to investigate the use of computers to carry out business calculations. No-one else had thought of computers in this way. They were seen as tools for use in Mathematical calculations, but the management of Lyons saw the possibilities for carrying out comparatively simple calculations on large amounts of data.

They visited the USA but did not find a suitable machine – or anyone interested in building one. Eventually in 1951 they designed and built a computer based on the design of the ENIAC. They called the machine LEO (Lyons Electronic Office).

LEO's first job was to analyse each day the bakery requirements of the teashops, make production plans and even tell the van drivers which products to load first. LEO 1 was housed in a large room and was fronted by the same blue metal doors used to cover cupboards in the tearooms.

I joined the company in 1962 when LEO 3 was brought into operation. Most programming was in a numerical code but CLEO (Clear Language for Expressing Orders) – a word based language – was being introduced.

Leo was housed in Hartree House – a suite of rooms above Whiteley’s department store at the bottom of Queensway. The computer filled a large air-conditioned room. By the time I joined we were carrying out bureau work for other companies. One of the customers was also in the food business. Home Grown Fruits used Leo to keep track of different apple crops and plan when to move them in and out of cold storage.



Hartree House was a very happy place to work. Most of us were young and loved our work. It was fun to be in Bayswater and have the daily thrill of planning which French or Indian restaurant would be taking your luncheon vouchers. Those who grew up in the 40’s and 50’s were not accustomed to much variety in their diet.

Another bonus of working for Leo was that each month we received a list of wines which we could purchase at a special rate from Lyons’ cellars. Sadly most of us lacked the knowledge or the money to take advantage.

I left LEO and computers in 1965 when we moved to Berkshire, but a few years later when living in New Jersey I embarked on a course in data security at a local college. Imagine my astonishment when the lecturer came in pushing a small trolley holding a computer about the size of a small TV, plugged it into the nearest electric socket and fired it up. The next weekend we purchased a Tandy computer from Radio Shack. I thought it was amazing - and I still do!

If you’d like to know more about what happened to the J Lyons business, including the ice creams that many of us will remember, you could have a look at this link:

<http://letslookagain.com/2014/09/the-rise-and-demise-of-the-j-lyons-empire/>



There’s also this video produced by the Science Museum, about Leo itself:

<https://youtu.be/X0yYDxjBnTM>