

Chapter 4: Gossipy History of the PC

INTRODUCTION

While some companies manufactured massive mainframes, a number of companies believed that individuals would find smaller more inexpensive computers useful and entertaining. In addition to IBM, and Apple, some of these manufacturers included Texas Instruments (who was already manufacturing and selling electronic calculators), Tandy (manufacturers of electronic equipment), Timex (of watch fame), MTIS, and Commodore Business Machines, to name a few.

These are by no means the first to make the effort to produce inexpensive computers. For Example GENIAC was available for \$19 in 1958 as a kit. But their computers were among the first to be generally available. Each of them ran different operating systems and represented different theories for how computer technology would impact humankind. The companies all ultimately failed or moved into different markets, but nonetheless these were the manufacturers that first brought computing to the rest of us.

In some cases (e.g., Commodore), their failure was in their marketing, but in most cases, the computers simply failed to meet the standards established by the next computer generation. The next (successful) generation of computers was as effective professionally as it was at home. Although by modern standards they are small and slow, at the time, the original IBM PC and Apple Macintosh were faster and easier to use than the others, and although they cost 10 times as much, the public was prepared to pay the difference.

This chapter, then, examines the war between Macintosh and Microsoft and the PC - who did what to whom, and how in the world did they get away with it?



Tandy TRS-80



Commodore 64



Texas Instrument, TI-99
courtesy of digibarn.com



Timex Sinclair 1000
courtesy of digibarn.com

BIRTH AND DEATH OF TRAF-O-DATA

Not everybody who jumped on at the beginning of personal computers went bankrupt. After an initial failure, two enterprising youths followed Alan Turing's lead and focused on the idea of creating code capable of making the computer a general purpose machine. Bill Gates and Paul Allen got their first access to a mainframe in high school and quickly became known for their strength as programmers and hackers and for the problems they caused. The school, Lakeside Prep School, bought what they thought would be more than 1 year's time on a DEC mainframe only to discover the time used up in a matter of weeks by Gates and his friends.

In a pattern of behavior that has characterized them since the 11th grade, Gates and Allen managed to bluff their ways into opportunities for access to computers. On one occasion, when their time lapsed, they found a way to log in as administrators and continue programming. At the University of Washington, Allen passed himself off as a graduate student until caught and barred from the lab. Their tenacity paid off, however. Increasingly, they were given time and money for finding and fixing bugs in computers software.

Their real break, however, came when they saw an article about the Altair 8000 in Popular Electronics Magazine. The computer was small and inexpensive, and it lent itself to programming. Gates and Allen tracked down the manufacturer (MITS -- Micro Instrumentation and Telemetry Systems) and offered to design a programming language for the computer - BASIC. In a tradition that many claim remains at Microsoft, they claimed to have a software that didn't exist for a computer they had never seen, they produced it late, and it was buggy, but it was good enough - the best available for its purpose. They produced a programming language that had never been near an Altair, yet worked the first time they tried it.

Gates and Allen immediately realized that the opportunities to provide programming languages to personal computers could only grow. In the past, they had created a computer company (Traf-O-Data). The company eventually failed in 1979. But now they created a new one, Micro-Soft.

MACINTOSH AND THE FIRST GUI

When the Macintosh was introduced in 1984, it represented something altogether new to the public - an affordable Graphical User Interface (GUI) on a computer with a mouse. Suddenly, while others were typing commands like "del index.com," Mac users were dragging and dropping the image of a file into the image of a trash can. Users had a computer with an interface that made sense (intuitive). But although Apple was the first to successfully mass-produce a GUI, they were not its inventors, nor were they the first to market it.

The honor for producing the first working GUI goes to Doug Englebart - at the time an employee of Stanford Research Institute. Englebart and colleagues created a program called the oNLine System in 1965-'68. This program used the first mouse, a windowing system, and hypertext, and was based on a description of a system called "memex" proposed by Vannevar Bush in 1945. The name "mouse" comes from this period. The mouse used in oNLine had three buttons on one end and the line coming out the other end. Apparently, the buttons for eyes and nose, plus a cord for a tail, reminded the users of a mouse and the name stuck.

Years later, still in a time when nobody knew what the future of computers was to be, Xerox put together a team of researchers who did nothing more than put ideas together to see what they produced. The team, located at the Xerox Palo Alto Research Center, was convinced that Englebart's model would work on computers available for individual work stations, and they produced two working models, the Alto and the Star. The Star was made available to the public, mouse and all, in 1981. But it was very expensive, and they sold only 25 thousand of them. But this was the first GUI-based OS available to the public.

The Star had many limitations. The name is for the OS, which was very powerful, and not the computer, which was not very powerful. The computer was unable to handle the demands of the OS with predictable results.

Steve Jobs, one of the founders of Apple, saw some of the potential in a GUI during tours of the Xerox facility. Some say that is where Jobs got his ideas for the GUI found on the Mac. Jobs did see some programming that contained GUI concepts, but the development team for the Lisa (and Bill Gates, by the way) saw the release of the Star. Both the development team and Bill Gates left with new visions for the future of the PC. The Lisa was retrofitted with a GUI OS before it was released and Microsoft began working on Windows. Like the Star, Lisa was a very expensive computer and few sold.

The Macintosh was released in 1984 as a relatively inexpensive alternative to Line Command Operating Systems, and the rest is history.