



Inventors of the Modern Computer

The History of the Graphical User Interface or GUI

The Apple Lisa

By Mary Bellis

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No, Steve, I think its more like we both have a rich neighbor named Xerox, and you broke in to steal the TV set, and you found out I'd been there first, and you said. "Hey that's no fair! I wanted to steal the TV set!" - Bill Gates' response after Steve Jobs accused Microsoft of borrowing the GUI (Graphical User Interface) from Apple for Windows 1.0*

The Lisa - The Personal Computer That Works The Way You Do - Apple promotional material

A GUI (pronounced GOO-ee) is a graphical user interface to a computer. Most of you are using one right now. Take a look at your computer screen, the GUI provides you with windows, pull-down menus, clickable buttons, scroll bars, icons, images and the mouse or pointer. The first user interfaces to computers were not graphical or visually oriented; they were all text and keyboard commands. MS-DOS is an example of a text and keyboard method of computer control that you can still find on many PCs today.

The very first graphical user interface was developed by the Xerox Corporation at their Palo Alto Research Center (PARC) in the 1970s, but it was not until the 1980s when GUIs became widespread and popular. By that time the CPU power and monitors necessary for an effective GUI became cheap enough to use in home computers.

Steve Jobs, co-founder of Apple Computers, visited PARC in 1979 (after buying Xerox stock) and was impressed by the "Alto", the first computer ever with a graphical user interface. Several PARC engineers were later hired by Apple and worked on the Apple Lisa and MacIntosh. The Apple research team contributed

much in the way of originality in their first GUI computers, and work had already begun on the Lisa before Jobs visited PARC. Jobs was definitely inspired and influenced from the technology he saw at PARC, however, enough for Bill Gates to later defend Microsoft against an Apple's lawsuit over Windows 1.0 having too much of the "look and feel" of a Apple MacIntosh. Gates' claim being, "hey, we both got it from Xerox." The lawsuit ended when Gates finally agreed that Microsoft would not use MacIntosh technology in Windows 1.0, but the use of that technology in future versions of Windows was left open. With that agreement, Apple lost its exclusive rights to certain key design elements.

In 1978, Apple Computers started on a business system to complement their successful Apple II/III line of home computers. The new project was code named Lisa, unofficially after the daughter of one of its designers and officially standing for Local Integrated Software Architecture. Steve Jobs was completely dedicated to new project, implementing feature after feature and delaying the release of Lisa, until he was finally removed as project manager by then Apple president Mark Markkula. The Lisa was finally released in January 1983.

Side Note: Don't worry about Jobs. He then turned his attention to the MacIntosh.

The Lisa was the first personal computer to use a GUI. Other innovative features for the personal market included a drop-down menu bar, windows, multiple tasking, a hierarchal file system, the ability to copy and paste, icons, folders and a mouse. It cost Apple \$50 million to develop the Lisa and \$100 million to write the software, and only 10,000 units were ever sold. One year later the Lisa 2 was released with a 3.5" drive instead of the two 5.25" and a price tag slashed in half from the original \$9,995. In 1985, the Lisa 2 was renamed the Macintosh XL and bundled with MacWorks system software. Finally in 1986, the Lisa, Lisa 2 and Macintosh XL line was scrapped altogether, literally ending up as landfill, despite Steve Jobs saying, "We're prepared to live with Lisa for the next ten years."

Specifications

The Lisa/Lisa 2/Mac XL

Specifications	The Lisa/Lisa 2/Mac XL
CPU:	MC68000
CPU speed:	5 Mhz
FPU:	None
Motherboard RAM:	minimum 512 k - maximum 2MB
ROM:	16k
Serial Ports:	2 RS-323
Parallel Ports:	1 Lisa - 0 Lisa 2/MacXL
Floppy Drive:	2 internal 871k 5.25" 1 internal 400k Sony 3.5" Lisa 2/MacXL
Hard Drive:	5 MB internal;
Monitor:	Built-In 12" - 720 x 360 pixels
Power Supply:	150 Watts
Weight:	48 lbs.
Dimensions:	15.2" H x 18.7" W x 13.8" D
System Software:	LisaOS/MacWorks
Production:	January 1983 to August 1986
Initial Cost:	\$9,995

The high cost and delays in its release date helped to create the Lisa's demise, but where the Lisa failed the Macintosh succeeded. Continue reading about Apple's history with our next chapter on the Macintosh.

A month after the Lisa line was cut; Steve Jobs quit his job at Apple. However, do not worry about what happened to Jobs. He then turned his attention to the NeXT computer.

About Mary Bellis

Mary Bellis is an inventor who works in digital film production and also curates an electronic art gallery.

Professional Experience: Mary has produced and directed a number of short films, including a documentary on Alexander Graham Bell, the inventor of the telephone. She is working on an invention to bring about world peace.

Education: Mary has a master's degree in film and animation from the San Francisco Art Institute.

From Mary Bellis: "Mad scientists and their successful (and maybe not-so-successful) gizmos, are featured regularly at this Web site, along with your own theories and inventions. You are encouraged to email your stories and pics on your own inventions and ideas, so we can publicize them."

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