



Bill Gates reclines on a table while talking on the phone in the computer room at Lakeside School, Seattle, WA, 1973

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In the case of Bill, he began with an idea that one day, low cost computers would be available to everyone. These personal computers would be powerful enough to run many applications but small enough in size to be practical for individual use and affordable. Bill also had a friend that shared his dream named Paul Allen. Paul was three years older than Bill, but their love of computers bound their future together. When they first started programming there was no such animal. Bill wrote his first program at age 13. Bill and Paul cut their teeth so to speak on a terminal at Lakeside School. The terminal had no monitor. To see the results of their work they had to wait, patiently, while the results sluggishly poured back onto a loud printing device. From there Bill and Paul rented computer time whenever they could to get access to the expensive mainframes, which they accessed remotely via telephone lines. Computer time was expensive at \$40/hour. As programming became their passion, they began to work to pay their own computer-time bills. Their skills paid handsomely for high school students who could program during the summer for \$5,000 part in cash and part in computer-time. This started them off on their commercial endeavors as they programmed for every new chip that came out.

Bill went off to Harvard and convinced Paul to come out to Boston as well.



those companies' whole line of computers it tied the customer to their hardware platform. This is where Bill's vision departed into a new and uncharted territory. "Microsoft's goal was to write and supply software for most personal computers without getting directly involved in making or selling computer hardware. We licensed our software at

extremely low prices because we believed money could be made betting on volume.¹” With that goal and his unwavering commitment to that strategy, Bill built an empire stretching to all corners of the earth.

At first the chips such as the Intel 8008, released in 1972, were not powerful enough for their goal of programming BASIC. But one chilly winter day in Cambridge in 1974, Paul rushed Bill to a Harvard Square newsstand to show him the January issue of Popular Electronics. On the cover was a small new computer called the Altair 8800, which ran a new Intel 8080 microprocessor chip. "The future was staring us in the face from the cover of a magazine. It wasn't going to wait for us. Getting in on the first stages of the PC revolu-

tion looked like the opportunity of a lifetime, and we seized it.¹” In 1975, after five weeks of straight programming and many sleepless nights, Bill and Paul completed BASIC for the Altair and the world's first microcomputer software company was born which they eventually named Microsoft. From there Microsoft went on to create and license their BASIC for many emerging systems. In 1977, Microsoft even licensed Microsoft's Applesoft BASIC to Apple for \$21,000 for eight years for the Apple II.

IBM launched its first personal computer in August of 1981 based on the Intel 8088 microprocessor and it was an immediate success. Fortunately for Microsoft, they licensed Microsoft's operating system, which IBM called PC-DOS, instead of creating the OS in house as they did for their mainframes. Bill's first 'fabulous' and now famous deal with IBM included a royalty-free right to use Microsoft's operating system forever for \$80,000; however, it didn't include exclusivity or control of future enhancements. That allowed Microsoft to license its operating system to other manufacturers. There were; however, competitors from the start, as IBM also licensed other operating systems to run on its IBM PC including Digital Research's CP/M-86 and UCSD Pascal P-system. But Bill's low cost strategy worked. The UCSD Pascal P-system sold for \$450 and the CP/M-86's sold for \$175 versus the low priced \$60 MS-DOS. IBM eventually dropped the other operating systems in favor of Microsoft's. While Microsoft essentially

allowed IBM to use its software for free, Microsoft focused on the other PC compatible market for its sustainable revenue. Microsoft was so successful in its licensing strategy that virtually every computer manufacturer within three years licensed its operating system. All other competing standards disappeared with the exception of Apple's Apple II and Macintosh.



Bill Gates at his Lakeside School Graduation, Seattle, WA, June 7, 1973

With its operating system business a success, Microsoft was able to build on its base and branch out into productivity applications. There were several applications like the spreadsheet program Lotus 1-2-3, or its predecessor VisiCalc or WordPerfect, which dominated the early eighties. The limitation of these programs though was that they were character based. Bill knew that Microsoft would need to create a graphical operating system to improve on MS-DOS and announced in 1983, that Microsoft would be developing a new OS called Windows. "The first popular graphical operating system came to market in 1984, when Apple released its Macintosh. Everything about the Macintosh's proprietary operating system was graphical, and the Mac was an enormous success.¹” Microsoft continued to work with Apple and in fact developed their first graphical products on a Macintosh – Microsoft Word and Microsoft Excel. While Apple produced an excellent graphical operating system, it refused to license it to other computer manufacturers except for a brief period in 1995. Bill's strategy of licensing software and staying out of the hardware business was of course opposite of Apple's strategy and ultimately led to Microsoft's huge success in the personal computer market. Windows not only became the de facto standard, but also so did Word and Excel and eventually Microsoft's whole Office suite. Thus ended what some consider Phase I of Personal Computing.

While there really is no magic end date for Phase I or start date to Phase II,