

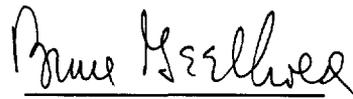
William H. Gates: Symbol of the Information Age

An Honors Thesis (HONRS 499)

by

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Purpose of Thesis

This thesis is an overview of the life of William H. Gates, president and co-founder of Microsoft Corporation. This thesis discusses Gates' early life and experiences with computers, the formation and success of Microsoft and the success of Gates himself. Not only did Gates make himself successful with computer software, but his software helped make computers the useful, necessary machines they are today. Bill Gates is as much a symbol of the information age as the computer itself.

Microsoft Corporation is the leader in sales of both computer operating systems and applications software. It is estimated that MS-DOS is used on 90% of personal computers. Microsoft supplies programs for the Apple computer as well as IBM compatible machines. How does a company grow from a small partnership to a global leader in the computer software industry? A company accomplishes this by having Bill Gates in the driver's seat. Bill Gates can be held responsible for the success of computers because his software makes it possible for computers to be user friendly, and help the general public be able to use computers.

Bill Gates, is according to many "the undisputed mastermind of that [Microsoft's] success, a brilliant technocrat, ruthless salesman, and manipulative-some said devious-businessman."¹ Due to the success of Microsoft, Bill Gates became the youngest billionaire ever, and is currently the richest man in the United States.

The Bill Gates life story is not one of rags to riches. Gates has always been what could be considered privileged. William Henry Gates III, was born on October 28, 1955, in Seattle, Washington. Mary's mother, Adelle called him Trey, but in reality Bill Gates was the fourth Gates with that name.² His father William Henry Gates, Jr. (the third William Henry Gates) is an attorney. His mother, Mary Maxwell Gates who came from a wealthy family herself, was a teacher, and was heavily involved with community service. She served as president of the Junior League, and worked with the United Way, as well as serving on numerous other corporate and public boards of directors.³ Gates has two sisters, Kristianne is one year older, and Libby is nine years younger than Bill.⁴

Gates went to Lakeside, an all-boys private prep school beginning when he was 11 years old. This was Seattle's most exclusive school, only the best and brightest, and

richest could attend. This was also where Bill Gates got his first look at the computer, and it was love at first sight.

It was here that the proper mix of ingredients needed to forge Gates' inner fire came together: energy, intelligence, intensity, competitiveness, obsesiveness, drive, desire, business acumen, entrepreneurship, and luck. He would cut his first business deals at Lakeside, and form his first money-making company. He would develop lasting friendships with a handful of Lakeside computer whiz kids like himself, who would become the first to join him in his crusade to build a software empire.⁵

Lakeside is where Paul Allen, two years Gates' senior, and Gates met and formed a friendship. "Seven years after meeting they would form Microsoft, the most successful startup company in the history of American business."⁶

Gates has always been good at math, and he contributes his success with computers to his success with math, he believes they are directly related through problem solving. Later, when Gates was attending Harvard he met other math geniuses and gave up math as a career because if he could not be the best in his field, why risk failure?⁷

However, math was not the only area in which Gates excelled.

Fred Wright, chairman of the math department at Lakeside when Gates attended, said of Gates, He could see shortcuts through an algebraic problem or a computer problem. He could see the simplest way to do things in mathematics. He's as good an analytical mathematician as I've worked with in all my years of teaching. But Bill was really good in all areas, not just math. He's got a lot of breadth. It's one of the unusual things about him.⁸

One of the companies Lakeside bought computer time from was Computer Center Corporation, or C-cubed. Gates and some of the other students found a way to break the security system to obtain access to the company's accounting records. They found their

accounts and reduced the amount of time the computer said they had spent on the system. They were proud of themselves, until they got caught.⁹

C-cubed was having problems with their system crashing, making customers angry. They hired Lakeside students to work nights to try to crash the system and keep track of what caused the problems so the programmers could fix it. In exchange for this, the students would receive computer time, at night, for free. The journal of problems grew to over 300 pages within the next six months, most of the entries being made by Paul Allen and Bill Gates. However, Allen and Gates did more than find bugs in the system, they also search the offices, including trash cans for information on the operating system and how the computer worked.¹⁰

C-cubed did not survive for long. The company struggled from the time it was opening in 1968 until it closed its doors in the spring of 1970.¹¹ Gates and Kent Evans, another of the students hired by C-cubed, managed to buy the DEC computer tapes from the company, which they later sold at a nice profit.¹²

Bill's parents were becoming increasingly concerned with the amount of time their son spent with a computer. They ordered him to spend some time doing something else. Never one to do things half-way, Gates did nothing with a computer for the next nine months. Instead he read all the books he could in that time. Bill says, "I tried to be normal the best I could."¹³ But his best at being normal was not enough, because Bill Gates simply was not your normal teenager, or typical businessman for that matter.

Bill stood out, said one former classmate...everyone knew who Bill Gates was...He looked like a little kid, for one thing. He looked much younger than he was. He was also incredibly obnoxious. He was also considered the brightest kid in school. He was obnoxious, he was sure of himself, he was aggressively, intimidatingly smart...But he did not have any social

graces. He just wasn't a personable kind of person. He was one of those guys who know he was smarter than everyone else and knew he was right all the time.¹⁴

The Lakeside Programmers Group, the same group that had worked together at C-cubed, got another opportunity to work on computers in 1971. They were to write a payroll program in COBOL for a customer of Information Sciences Inc. This business deal meant that the group would have to become a formal partnership. Gates' dad was their legal advisor. Paul Allen was 17, Gates and Evans were only 15 years old. Evans kept a journal of the project which gives insight into the minds of kids, wise beyond their years. They wanted to be paid a piece rate, or a sort of royalty arrangement. It is not clear how much the group made, but ISI gave them about \$10,000 worth of free computer time.¹⁵

The next business venture was a partnership between Gates and Allen called Traf-O-Data. They wrote a program to translate the data accumulated by traffic counter tapes that counted the number of cars passing by a point in a given time into easy to read charts the municipality could use. This partnership reportedly grossed about \$20,000 but was never really successful and folded when Gates went to college.¹⁶

While trying to get business for his Traf-O-Data company, Gates joined up with Kent Evans, Paul Allen and others, to form a group called the Logic Simulation Company. In 1972 Lakeside asked them to continue a program started by a Lakeside teacher who had been killed in a plane crash. The program was to get the Lakeside scheduling of classes computerized. Once the program was finished, Lakeside was not the only school to purchase it. Less than a week after beginning the project Kent Evans was

killed in a mountain-climbing accident. In 1986 Gates and Allen donated money to Lakeside to build a science and math center “and dedicated it to the memory of their classmate, friend, and fellow-explorer, Kent Hood Evans, whose name would grace the auditorium.”¹⁷

In the summer of 1972, Gates went to Washington D.C. as a page in the U.S. House of Representatives. While there Gates bought 5,000 McGovern-Eagleton buttons for a nickel each, or \$250. When George McGovern dropped Thomas Eagleton from the presidential ticket, Gates sold the buttons as collectors items for \$25 each, making several thousand dollars in profit.¹⁸

Gates was not always at a computer terminal, or making business deals. He had a very broad field of interest. In the fall of 1972, the first girls began attending Lakeside school after its merger with St. Nicholas, an all girls school. Gates took a drama class in 1973, his senior year, and landed leading roles in two of the plays. One play required that Gates memorize three pages of monologue. “Gates, with a nearly photographic memory, merely glanced at the pages for a few seconds and had the material memorized. I thought to myself, recalled Anne Stephens, who directed both plays Gates was in, how is this gawky guy going to carry this off? It is a very dry piece. But he did a delightful job in the play. He was absolutely charming.”¹⁹

Also in 1973, a defense contractor, TRW was having problems with their computer system crashing. They somehow got a look at the Problem Report Book that had been put together at C-cubed and noticed Bill Gates and Paul Allen’s names were on almost every page. They hired the two to work on keeping their computer system up and running for \$165 per week. Paul Allen dropped out of Washington State University and

Gates received permission to miss the second trimester of his senior year at Lakeside so they could work full time. It was here that Gates had his first experience with getting feedback on the code he was writing. Today he often goes over the code written by Microsoft programmers and sends them E-mail commenting on it. The comments are seldom positive, but always correct.²⁰ According to Brad Silverberg, vice president of Microsoft's Windows development program, "He has this laserlike ability to home in on the absolute right question to ask, He'll know some intricate low-level detail about a program, and you wonder, how does he know that?"²¹

At Harvard, studies did not take much of Gates' time. He spent most of his time playing poker and playing with computers. In 1975, when Gates was 19, he began seriously preparing his parents for the time when he would drop out of college and start his own computer software business with Paul Allen. In January of 1977, Bill Gates left Harvard to run Microsoft full time. Harvard listed Gates as being on a leave of absence, and he is still listed as such.²²

Gates did not begin, or make Microsoft successful by himself. He was helped by many brilliant people, not the least of which was Microsoft's other co-founder, Paul Allen. Allen had a talent for predicting where the industry was headed, even three or four years into the future, and made sure Microsoft was prepared for the future.²³ Allen talked Gates into writing the first BASIC program which Paul sold to MITS giving the company its start. He worked at MITS and kept the partnership going in Albuquerque while Gates was still in college. When the partnership was formed Gates received a larger percentage because he had done more of the code writing on the BASIC program, but Allen deserves a lot of the credit for making the dream happen.

In late 1982, Paul Allen was diagnosed with Hodgkin's Disease, a form of lymph cancer. In early 1983, he resigned as executive vice-president of Microsoft to recover from his cancer, which had gone into remission, and to enjoy a life that he had a new perspective on and a new appreciation of. Allen did keep his seat on the board of directors.²⁴

Microsoft got its start with Paul Allen and Bill Gates writing a BASIC programming language in 1975, using the computers at Harvard where Bill was a student. The program was written to run on the first personal computer, the Altair. Micro Instrumentation and Telemetry Systems, MITS, and its founder Ed Roberts had developed the computer to run on the 8080 microprocessors which had just been developed by Intel. The system was sold as a kit for computer hobbyists to assemble and use.²⁵

Popular Electronics magazine featured the computer on the cover before the system was available for sale. Paul Allen saw the story and saw the future of the personal computer.²⁶ Gates called Ed Roberts and was told that whoever showed up in Albuquerque with a working version of BASIC for his computer would get a contract to supply that program to MITS.²⁷ Allen and Gates spent the next eight weeks writing their program and were the first to present the working version to MITS.²⁸ This program which would become known as Microsoft BASIC was the beginning of the partnership that would become Microsoft Corporation.

The Microsoft partnership was formally established between Allen and Gates in 1975. Gates received a 64% interest and Allen received 36%.²⁹ Gates and the other programmers would often spend long hours and seven day weeks working, a tradition which continues today. Unfortunately for Microsoft, MITS was not very successful at

producing computers. There was a very large backorder, but the computers that were shipped often did not work, even if they were assembled correctly, which was not often. For the lucky people who got their computer up and running, they often could not get a copy of BASIC from MITS. This all meant money problems for Microsoft. They could not sell BASIC to other customers, and MITS was not getting the program out to its customers.

Programmers began copying BASIC from others who had a copy. When Gates realized this he wrote a memo which appeared in a computer magazine. This memo all but accused these hackers of being thieves, stealing BASIC. However, it was this widespread use of BASIC that caused it to become the industry standard, giving Microsoft a distinct advantage over its competition in the computer language area. Later, when companies wanted to write applications they had to be sure it ran on Microsoft BASIC, and often came to Microsoft, with money, to purchase the rights to use and sell BASIC.³⁰ Microsoft eventually terminated the contract with MITS that gave MITS exclusive rights to sell BASIC, and a flood of pent up demand made sure Microsoft would never have money problems again.

The first full year of operation for Microsoft, 1976, saw revenues reach \$100,000 and were expected to triple for the next year. In 1977 Microsoft entered the Japanese market, long before any competition tried to enter the market. Soon after, Gates met Kazuhiko Nishi, better known as Kay. Kay convinced Gates to meet with him for one hour at a computer conference, it turned into an eight hour conversation. Gates said, "For a guy from Japan, Kay's more like me than probably anybody I've ever met. Whatever you think I am, that's what Kay is...thinking, futuristic, energetic."³¹

Kay became Microsoft's exclusive agent in the Far East, for a 30 percent commission.³² For all his energy, and the chemistry between Gates and Kay at this first meeting, Kay would turn out to be too free when spending money for Gates and the two would part company but not before Microsoft would benefit from the arrangement. Today, Japan is Microsoft's second largest market, after the United States.³³ Bill Gates' mission for Microsoft is to provide all the software for every microcomputer.³⁴

The corporate culture of Microsoft that was set up during this time continues to some extent today. In addition to employees working long hours, Microsoft has kept an informal basis to its company. Employees set their own hours, and there is no dress code. Creativity, and individuality are encouraged.

Part of what made Microsoft so successful during the company's infancy was the team of programmers that Gates and Allen began to assemble in the spring of 1976. They became known as the Microkids--high IQ insomniacs who wanted to join the personal computer crusade, kids with a passion for computers who would drive themselves to the limits of their ability and endurance, pushing the outside of the software envelope."³⁵

Microsoft has continued that tradition of hiring computer programmers directly out of college, when they want to prove themselves in the real world and are willing to do it cheaply.

In 1979 Microsoft was moved from Albuquerque to Seattle. There were still fewer than 40 employees, but revenues were approaching four million dollars per year.³⁶ The company also announced plans for a new consumer product division. Up to this point Microsoft had only been developing languages. The consumer products division would develop other types of software such as games and applications.³⁷ The first hardware product developed by Microsoft was the Softcard. This translated programs written for

Intel's 8080 microprocessor into a form which could be used on the Apple computer's 6502 code. Eventually there were over 100,000 Softcards sold.³⁸

The company attitude and character of the employees made Microsoft a strange partner for IBM to come asking for help from in 1980. However, Microsoft was the only company developing software for the 8086 chip which was to be the basis of IBM's personal computer, so IBM did not have much choice.³⁹ Microsoft was to provide both the operating system and language programs for the IBM personal computer. A deal which required Microsoft to more than double its employees, but also made Microsoft software the industry standard. From the beginning of the company operations, revenues had at least doubled every year and by 1981 revenues were approaching \$16 million.⁴⁰ The growth of the company had just begun, just ten years later, in 1991, Microsoft would have \$200 million in revenues from the sale of MS-DOS alone.⁴¹

Many at IBM feel the success of Microsoft is due to the deal they had with IBM, and therefore IBM deserved more of the money Microsoft made. This is true as far as the introduction of the IBM PC, which was built from components from other companies, made standardization a requirement in the computer industry. In addition to setting the standard of an IBM compatible computer it set the standard of a DOS compatible computer. If IBM had taken advantage of the Microsoft partnership they would have bought DOS when it was offered to them. Most of the revisions for DOS 2.0 was done by IBM programmers. The government was investigating possible anti-trust policies of IBM at the time and IBM felt it would not help their position to try and dominate the software market as they had done in the hardware market.⁴²

It is true that the IBM deal set off the growth of Microsoft, but that growth continued without the IBM partnership, which lasted for 12 years. During those 12 years,

Microsoft had gone from thirty-two people to twelve thousand and was still growing as fast as the construction crews could throw up buildings on the Microsoft campus among the evergreens of the Pacific Northwest. Microsoft's earnings had gone from less than \$1 million a year to more than \$500 million...Microsoft had come from nowhere to be one the top ten companies in the United States in terms of its publicly traded stock.⁴³

In 1981 Microsoft became a privately held corporation. Bill Gates was named Chairman of the board and Paul Allen was director. Gates also sold 5% of Microsoft to a venture capital firm for \$1 million. This was a strategic move to prepare for eventually taking the company public.⁴⁴

An international division was added to Microsoft in 1982. Microsoft already controlled most of the Japanese market and wished to do the same in Europe. This time, however, there was already competition. Digital Research had already established itself in Europe. Digital Research is also the company which held the industry standard for operating systems, CPM, in the United States until Microsoft and IBM introduced DOS. The success of the subsidiaries in Europe came slowly. It was not until the IBM compatible machines, which ran DOS became popular that Microsoft also became popular in Europe. Within a few years Microsoft had wholly owned subsidiaries operating in Italy, Sweden, Australia, Canada, Japan, Mexico, and the Netherlands.⁴⁵

As recently as 1982, Microsoft did not have a formal budgeting system, sales forecast, or salary structure. James Towne was the first non-computer person Microsoft hired. He was hired to solve the industrial and managerial type problems Microsoft had begun encountering.⁴⁶ Microsoft hired a marketing specialist, Rowland Hanson, in 1983.

They were just releasing Microsoft Word and other applications software and needed advice on how to market their consumer products. It was Hanson which convinced Microsoft to use the company name in the software it released, giving them name recognition every time a customer used the products.⁴⁷

In 1985, Microsoft released Excel for the Macintosh computer. It quickly outsold Jazz, the Lotus spreadsheet for the Macintosh, and became the standard. The success of Excel for the Macintosh helped Apple sell the computer because it could run better software that was not available for the IBM compatible computers. Microsoft eventually would become the leader in sales of Macintosh applications software.⁴⁸

Also in 1985, Windows was finally released, two years after it was announced. Even then it did not run properly and took up more space than most computers could afford to give up. Due to the delays in Windows being released there were few applications on the market to run on the new operating system. This was not the first graphical interface program to fail in the consumer market. In fact, all graphical interface programs had done poorly, even IBM's Topview. Microsoft released several versions of Windows and in 1990 found one that accomplished all that it had promised.⁴⁹ Windows 3.0 was released in May of 1990 with a vast array of supporting third-party software, including a long list of excellent applications from Microsoft that had somehow never gotten developed for IBM's competing OS/2. Within a few months sales exceeded a million copies per month. Windows 3.1, the next Windows revision, outdid its predecessor by selling one million copies every two weeks.⁵⁰

Microsoft has been growing rapidly ever since. In 1986 the company issued publicly traded stock, making many of the management team instant millionaires due to

the stock options that had been part of employee benefits for years. Gates became worth \$311 million on the first day the stock traded publicly, and the worth of Microsoft stock has steadily gone up since.⁵¹ In 1987, Microsoft overtook Lotus as the number one software company.⁵² In 1990, Microsoft became the first company in history to have \$10 million in revenues.⁵³

In 1986 and 1987 a change in the computer industry took place. Previously customers bought a computer for the name on the outside, especially if that name was IBM. Once the trend toward standardization took hold, most computer hardware was the same. What made one computer different from another was the software it could run and how fast it could manage that software. "Customers, analysts, and the press began talking about PCs in terms of the Intel processor at the heart rather than talk about them as IBM machines, Compaq machines or whatever. The change was barely noticeable at first, but the IBM logo had begun to lose its value. IBM no longer owned the future. Intel and Microsoft did."⁵⁴

There was no mistake that Bill Gates was the one in charge of the company. He negotiated the business deals himself, and often wrote the contracts himself. Many would find out, after the negotiations, that Gates was quite capable in the position he had put himself into.

At age 21, he was as comfortable sitting in his office negotiating tough deals with much older executives in three-piece suits as he was programming long into the night in front of a computer terminal, eating cold pizza and swigging down Coke.

The skinny kid with the dandruff and uncombed mop hair-cut not only understood software as few in the industry did, but he had the business and marketing savvy to run a very profitable company in a highly competitive environment. He understood the underlying issues in negotiation that were not immediately apparent, and he was confident that

he could handle them correctly. Given his white-hot drive, and his determination to trounce the opposition, to do whatever had to be done to dominate the software market, this rare combination of technical genius and managerial acumen was an unbeatable combination.⁵⁵

Many would try to beat that combination, and fail. IBM enlisted Microsoft's help, feeling that at any time they could discard Microsoft as they had done to previous 'partners', instead it was Microsoft who benefited from the partnership. Gates was even more vicious when it came to competition. "It's part of Bill's strategy. You smash people. You either make them line up or you smash them."⁵⁶

Lotus was one company who ran into problems with Gates' intense competitive manner. When DOS 2.0 was being developed Microsoft's Multiplan was losing ground to Lotus 1-2-3. When DOS 2.0 was released it would not run Lotus properly.

Unofficially, the problems Lotus encountered were not unexpected. "A few of the key people working on DOS 2.0 had a saying at the time that DOS isn't done until Lotus won't run. They managed to code a few hidden bugs into DOS 2.0 that caused Lotus 1-2-3 to break down when it was loaded. There were as few as three or four people who knew this was being done"⁵⁷ Many feel it was Gates that initiated this attack on Lotus.

Gates was also confrontational in his management style. "Bill was always pushing, said one programmer, we'd do something I thought was very clever, and he would say 'Why didn't you do this, or why didn't you do that two days ago?' That would get frustrating sometimes."⁵⁸ This confrontational style of management helped Microsoft remain competitive. Employees were challenged to continuously improve, they are never allowed to become complacent. If they had let themselves rest, even after they were number one, they would not remain competitive for long.⁵⁹

In 1979 two software programs became available, VisiCalc and WordStar, that opened Bill Gates' eyes to the possibilities of applications software. Even though these two programs were not immediately successful, they eventually were profitable for the companies which sold them. Gates, however, did not have to wait until the numbers said they were successful, he knew from the start that they would be.

Steve Smith was looking to change jobs in late 1978 and one of the places he was looking was Microsoft. He had a bachelor of science degree in marketing and an M.B.A. in finance. He believed Microsoft was in need of his services, he also liked the way Microsoft, as a company, was positioned. He like many others found that what can be seen of the company could be deceiving.

It became apparent to me that the guys at Microsoft really had their act together, but may not have really known it themselves. It wasn't obvious to me that they understood how to leverage the business. They had the contracts with Apple, with Radio Shack, but it wasn't clear they were turning it into an actual business....I was amazed at how successful they were without what appeared to be any real business management....From my point of view, they were just lucky, and if I got involved, we could probably add some discipline on the business side. It didn't take me very long to realize they really weren't lucky. Gates really understood what he was doing.⁶⁰

Steve Smith was not the only one to be amazed by Gates. Jack Sams, an IBM employee, said of Gates, "He had the most brilliant mind that I had ever dealt with."⁶¹

There were many who felt Microsoft and Bill Gates misused the power being number one had given them. There were so many bad feelings toward those at Microsoft, it had actually been booed at a software awards dinner.⁶² Most of the resentment was directed at the Chairman of Microsoft, Bill Gates. "Chairman Bill's reputation could not have been more formidable. No one in the industry made a move without considering the

likely counterresponse from Microsoft. Competitors feared him. Some had publicly admonished him. Others said that Gates misused his power in the industry to stifle innovation and quell challenges to Microsoft's superiority."⁶³

The resentment led at least one competitor to ask the Federal Trade Commission to investigate Microsoft. "Rivals charge that Microsoft breaks contracts with business partners and then swipes ideas from them."⁶⁴ The FTC did not find anything wrong in its investigations, but increasing pressure from competitors to find something has made the case drag on. Since the FTC could not find anything, the Justice Department has asked to review evidence the FTC had collected so it could pursue the case.

One instance when the allegations against Microsoft were found to be false involved the company, Intuit. Several companies referred to Intuit when telling the FTC about things Microsoft had done wrong. Scott Cook, chairman of Intuit told the FTC that Microsoft had done nothing wrong. "They are pestering one of the best run companies I've ever seen, a company that should be the model for American industry....When you lose to Microsoft, it's because you snooze."⁶⁵

There are others who agree with Cook's assessment of the situation. "They've gotten where they are by doing a good job, says Dyson. Doing a good job isn't illegal. Analyst Shaffer agrees: Just because they win in the market does not mean they're unfair. I haven't seen any evidence of antitrust violations."⁶⁶ The president of Central Point Software says, "The worst thing that could happen is to take our most successful industry and burden it further."⁶⁷ Microsoft is a globally competitive company. "It isn't pretty, and it certainly isn't polite. But it's very, very successful."⁶⁸

Bill Gates started and controls the number one software company, the most successful company in America, ever. He is the richest man in America, and became the youngest billionaire in history. By anyone's standards Bill Gates has lived the American dream and become a success through his hard work, well almost everyone's standards. MicroPro's founder, Seymour Rubinstein claims, "He was able to maximize a series of good fortune and lucky breaks."⁶⁹ Rubinstein is referring to Microsoft's ability to beat Digital Research's CP/M with DOS, a program Microsoft did not even develop.

Ruthann Quindlen, who knew Gates personally, said of him,

He has never failed at anything. He has picked things he will win at. In every situation Bill gets into, private and public, he sets himself up not to fail. It's what drives him so much...I'm not sure he's equipped to deal with failure. Because Gates has never known failure, according to Quindlen, he lacks a certain humaneness, and until he fails miserably at something that means a lot to him, he will never be a great man, despite all his accomplishments.⁷⁰

What Quindlen seems to be forgetting is that Bill Gates has failed. The first two releases of Windows, a program he worked on for years, failed. Multi-media, which Gates regarded as the future of computers, was thought of as a joke to most others in the industry, until it became the wave of the future.

The difference between Gates and most people is that he refused to accept an initial failure as a defeat. He modified and worked on Windows until it was a success with its third release, and most of today's multimedia software requires this Windows program to run. It was not luck which made Windows, or Microsoft successful. It was the drive, determination, brilliance, and entrepreneurial spirit of one man.

Gates did not simply take advantage of the existing technologies and ideas but expanded upon them and help to lead the technological revolution in the area of computer software. Bill Gates is the most formidable enemy, or competitor, anyone could face. He refuses to give up.

Bibliography

- Carroll, Paul, Big Blues, the Unmaking of IBM, Crown Trade Paperbacks, New York, 1993.
- Ferguson, Charles H., and Charles R. Morris, Computer Wars, Times Books, New York, 1993.
- Moody, Fred, "Mr. Software", The New York Times Magazine, August 25, 1991, pp26-31+.
- Manes, Stephen, and Paul Andrews, Gates, Doubleday, New York, 1993.
- Rogers, Michael, "The Whiz They Love to Hate", Newsweek, June 24, 1991, pp38-39.
- Schwartz, Evan I., "Don't Persecute Microsoft for Doing Things Well", Business Week, April 29, 1991, p29.
- Wallace, James, and Jim Erickson, Hard Drive, Bill Gates and the Making of the Microsoft Empire, John Wiley & Sons, Inc., New York, 1992.

Notes

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- ¹ James Wallace and Jim Erickson, Hard Drive, Bill Gates and the Making of the Microsoft Empire, John Wiley & Sons, Inc., New York, 1992, p2.
 - ² Stephen Manes and Paul Andrews, Gates, Doubleday, New York, 1993, p15.
 - ³ Ibid, p17.
 - ⁴ Wallace and Erickson, p10.
 - ⁵ Ibid, p18.
 - ⁶ Ibid, p21.
 - ⁷ Ibid, p64.
 - ⁸ Ibid, p23.
 - ⁹ Manes and Andrews, p33.
 - ¹⁰ Ibid, p29.
 - ¹¹ Ibid, p35.
 - ¹² Wallace and Erickson, p34.
 - ¹³ Ibid, p35.
 - ¹⁴ Ibid, p37.
 - ¹⁵ Ibid, p43.
 - ¹⁶ Ibid, p44.
 - ¹⁷ Manes and Andrews, p46.
 - ¹⁸ Wallace and Erickson, p46.
 - ¹⁹ Ibid, p47.
 - ²⁰ Ibid, p49.
 - ²¹ Fred Moody, "Mr. Software", The New York Times Magazine, August 25, 1991, p27.
 - ²² Wallace and Erickson, p111.
 - ²³ Ibid, p109.
 - ²⁴ Ibid, p236.
 - ²⁵ Ibid, p71.
 - ²⁶ Ibid, p66.
 - ²⁷ Ibid, p74.
 - ²⁸ Ibid, p80.
 - ²⁹ Ibid, p90.
 - ³⁰ Ibid, p107.
 - ³¹ Manes and Andrews, p126.
 - ³² Ibid.
 - ³³ Wallace and Erickson, p122.
 - ³⁴ Ibid, p95.
 - ³⁵ Ibid, p107.
 - ³⁶ Ibid, p136.
 - ³⁷ Ibid, p147.
 - ³⁸ Ibid, p158.
 - ³⁹ Ibid, p142.
 - ⁴⁰ Ibid, p208.
 - ⁴¹ Ibid, p204.
 - ⁴² Charles H. Ferguson and Charles R. Morris, Computer Wars, Times Books, New York, 1993, p71.
 - ⁴³ Paul Carroll, Big Blues. The Unmaking of IBM, Crown Trade Paperbacks, New York, 1993, p292.
 - ⁴⁴ Wallace and Erickson, p209.
 - ⁴⁵ Ibid, p226.
 - ⁴⁶ Ibid, p228.
 - ⁴⁷ Ibid, p243.
 - ⁴⁸ Ibid, p286.
 - ⁴⁹ Ibid, p314.

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- ⁵⁰ Ferguson and Manes, p81.
- ⁵¹ Carroll, p106.
- ⁵² Wallace and Erickson, p370.
- ⁵³ Ibid., p361.
- ⁵⁴ Carroll, p131.
- ⁵⁵ Wallace and Erickson, p117.
- ⁵⁶ Ibid., p212.
- ⁵⁷ Ibid., p233.
- ⁵⁸ Ibid., p128.
- ⁵⁹ Ibid.
- ⁶⁰ Ibid., p149.
- ⁶¹ Ibid., p169.
- ⁶² Ibid., p374.
- ⁶³ Ibid.
- ⁶⁴ Evan I. Schwartz, "Don't Persecute Microsoft For Doing Things Well", Business Week, April 29, 1991, p29.
- ⁶⁵ Wallace and Erickson, p380.
- ⁶⁶ Michael Rogers, "The Whiz They Love to Hate", Newsweek, June 24, 1991, p39.
- ⁶⁷ Ibid.
- ⁶⁸ Ibid.
- ⁶⁹ Wallace and Erickson, p240.
- ⁷⁰ Ibid., p328.