

Steve Jobs

A biography by Romain Moisescot

Family background

Steve Jobs was born on February 24, 1955, in the city of San Francisco. His biological mother was an unwed graduate student, and his biological father is said to be a political science or mathematics professor, perhaps of Middle-Eastern descent.

Back in the 50s, it was unconceivable for such a young woman to raise a child on her own, so she decided to put her baby boy up for adoption. However, she put a condition: she wanted the adoptive parents to have got an higher education, just like her... This was not the case of Paul and Clara Jobs, who ended up adopting the baby, but she eventually gave up after they promised he would be sent to college.

Paul Jobs was a midwestern farmer's son who had settled down in the Bay Area after his war service in the USCG and married Clara in 1946. The couple decided to name their adopted child Steven Paul. Steve's younger sister, Patty, was adopted three years later.

Childhood & Teenage years

Steve was very bored at school. In his own words:

"I was pretty bored in school and turned into a little terror"
(Playboy Interview with David Sheff, February 1985)

But this would soon change, thanks to his 4th-grade teacher, Imogene "Teddy" Hill. Steve would later say about her:

"She was one of the saints of my life. She taught an advanced fourth grade class, and it took her about a month to get hip to my situation. She bribed me into learning."

His skills became so apparent that the school allowed him to skip 5th grade and go straight to middle school. The problem was, the Crittenden Middle School was not exactly a nice place to be around. Steve, who felt left behind in the ambient chaos, insisted that his parents moved him to another school the following year, otherwise he would refuse to go to school altogether. The 11-year-old's thoughtful parents bowed and moved to Los Altos in 1967, so that Steve could attend the much cozier Cupertino Junior High School. This move is worth noting because the city of Los Altos, as well as the neighboring towns of Cupertino and Sunnyvale, were home to an unusually high number of engineers (and their garages...)

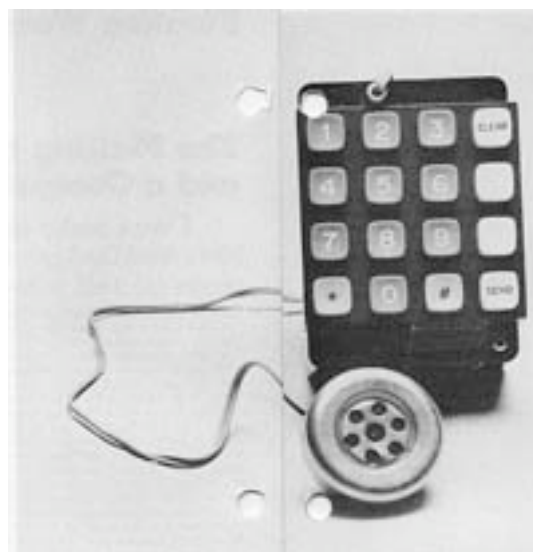
A little history here. In 1957, the launch of Sputnik I by the Soviet Union rushed the US into what would later be known as the Space Race. Federal money was poured in the emerging electronics industry, whose birth can roughly be traced back to the invention of the transistor by William Shockley (Physics Nobel Prize of 1956). It just so happens that Shockley set up the Shockley Semiconductor Company in the Santa Clara County, thirty miles south of San Francisco, thus making it the world center of electronics research. The area was soon filled with a zillion engineers, and young companies started to appear in their garages. Such was the case of Hewlett-Packard.

HP engineers played a major role in Steve's life, as they were the ones who introduced the youngster to the world of electronics. This would become his #1 hobby as he would enter Homestead High the following year. At Homestead, he attended his first electronics class, and befriended Bill Fernandez, who shared his passion for electronics. Fernandez happened to know another electronics whiz, Woz (whose real name was Steve Wozniak), who was 5 years older than Steve Jobs.



14-year old Steven Paul Jobs

Bill Fernandez and Woz, despite the age gap, had bonded together because of their common project of building their own computer with electronic spare parts. They called it the "*flair pen & cream soda computer*". They were so good at it that even a local reporter from the San Jose Mercury News came to Bill's garage to interview them.



One of Woz's blue boxes

Anyway, Steve took interest in the project and Bill introduced the 14-year-old Steve to his 18-year-old friend. Although they met in 1969, a real friendship between Steve and Woz started to develop only a couple of years later, when Woz emerged as a renowned figure in the small world of *phone phreaks*. These were a primal form of hackers who had figured out a way to fool AT&T's long-distance switching equipment, thus providing a way to make international calls for free. The hardware they used to do so was known as *blue boxes*. Woz's blue boxes were the best ones around, and it fascinated 17-year-old Steve. He soon

convinced his friend they should sell the boxes, and they did so for a few months (with prices ranging from \$150 to \$300), before it started to become too illegal to be safe.

After Steve finished high school, his parents, true to their words, asked him to pick a college. Steve chose Reed College in Oregon... Paul and Clara were dismayed: although a renowned liberal arts college, Reed was very far from home, and one of the most expensive institutions in America. But as Steve refused to go anywhere else, they spent all their savings in his tuition.



19-year old Steve Jobs

After a few months spent at Reed, young Steve appeared to be much more interested in the elimination of mucus and the path to a higher awareness through Eastern mysticism than his Physics & English Literature classes. His grades were extremely poor. Here's what he said about it some thirty-two years later:

"After six months, I couldn't see the value in it. I had no idea what I wanted to do with my life and no idea how college was going to help me figure it out. And here I was spending all of the money my parents had saved their entire life. So I decided to drop out and trust that it would all work out OK. It was pretty scary at the time, but looking back it was one of the best decisions I ever made. The minute I dropped out I could stop taking the required classes that didn't interest me, and begin dropping in on the ones that looked interesting.

It wasn't all romantic. I didn't have a dorm room, so I slept on the floor in friends' rooms, I returned coke bottles for the 5¢ deposits to buy food with, and I would walk the 7 miles across town every Sunday night to get one good meal a week at the Hare Krishna temple. I loved it."

(Stanford Commencement Address, 12 June 2005)

Steve kept on hanging around the Reed campus the following year. He got his first job at a young video-game company called Atari in 1974. He was hired despite his neglected look and bad smell because Atari was growing fast, and because it was Silicon Valley — but, after a while, he was only allowed to work at night so that his smell would not bother his fellow colleagues...

One day, he came to see his boss at Atari, Al Alcorn, and asked him for money to go make a spiritual journey in India. Alcorn agreed — only in exchange of a little rewiring work for him to do in Germany. So in the summer of 1974, Steve left to India with one of his best friends from Reed College, Dan Kottke. But after a month spent in the midst of poverty, visiting guru after guru without finding any spiritual enlightenment, Steve and Dan's opinion about the search for truth had changed quite a bit.

“We weren't going to find a place where we could go for a month to be enlightened. It was one of the first times that I started to realize that maybe Thomas Edison did a lot more to improve the world than Karl Marx and Neem Kairolie Baba put together.”
(quoted in Michael Moritz's *The Little Kingdom*)

After his return from India, Steve started working for Atari again and renewed his interest in electronics — which however did not prevent him from keeping on frequenting the Los Altos Zen Center and spending time in the All-One Farm in Oregon with his hippie friends from Reed.

He was showing a growing interest in Woz's progress on a new computer design...

Apple's first years

Indeed, at the time, Woz was starting to become a respected member of the Homebrew Computer Club, a computer hobbyist group that belonged to the *Free University Movement*. The club, whose popularity was rapidly increasing, gathered twice a week at the Stanford Linear Accelerator Center auditorium. Its members were mostly passionate engineers who came to show off their latest achievements and share tips and information about computer kits, programming and computer design.

Steve's own interest in computer design was limited, but he quickly understood that his friend's current project was an amazing feat of engineering. He got increasingly involved and after a few months, he convinced Woz to found a company to sell his computer to other hobbyists. He understood that there were hundreds of software hobbyist out there, who, unlike Woz, were not interested in building a machine, but were desperate to use it for programming.



Stephen Wozniak and Steve Jobs in 1976

So, on April 1st 1976, Apple was born. The name *Apple Computer* was chosen because they had not found anything better and because it was Steve's favorite food at the time (he was a fruitarian, i.e. he ate only fruits). He also considered the apple to be something of a perfect fruit. Jobs and Wozniak got a share of 45% each, while the remaining 10% went to Ron Wayne, an Atari engineer who had given an hand to the duo. The original capital investment was quite modest: Steve had come up with \$500 by selling his Volkswagen van while Woz had brought another \$500 in by getting rid of his HP calculator.

Apple Computer made its first sale a few weeks after the quiet introduction of the Apple I to the Homebrew Computer Club. Paul Terrel, who had just founded a new chain of computer stores called The Byte Shop, wanted to buy Apples. He said he would buy 50 of them at \$500 each, cash on delivery. That was worth \$25000!

“Nothing in the subsequent years was so great and so unexpected” Wozniak said as he recalled the event.



While the first Apples were made of just a circuit board — not exactly Terrel's idea of a computer — the following models were delivered in a wooden box as followed:

They were built at Apple's first headquarters, the garage of the Jobs family. It was also around that time that Woz started working on the design of the Apple II.

The Apple II was a real breakthrough in personal computer design. Its operating system could load automatically, and the computer did not require a fan (which Jobs hated) thanks to a revolutionary new type of power supply. But most of all, it could do a lot more than its rivals, despite an incredibly lower number of components — all that thanks to Woz's brilliant design.

The first working mock-up of Apple II was ready for Apple's first public appearance at the Personal Computer Festival of Atlantic City in Summer 1976. The Apple booth, a card table in front of yellow curtains displaying the entire product line (the Apple II mockup plus an Apple I circuit), was far from impressive compared to the enormous setup of MITS, on which everyone's attention was focused (MITS had produced the first personal computer kit ever, Ed Roberts' *Altair*). Steve realized two things at that show: the importance of the first impression, and the fact that in order to succeed, the Apple II had to be a self-contained device, as opposed to a computer kit.



Apple's first logo, designed by Ron Wayne

In late 1976, Steve decided that Apple had to hire a PR agency to take care of its advertising. He turned to one of the most regarded advertising agency of the Valley, which was then run by Regis McKenna. McKenna's agency had just made a huge hit with Intel's advertising



Woz, Steve and Dan Kottke at the Personal Computer Festival in Summer '76

campaign. Although he had first turned him down, McKenna eventually was seduced by Steve's force of persuasion, and agreed to sell its services to Apple. One of their first decision was to advertise in *Playboy Magazine*. However, they quickly realized that in order to do so, Apple would need more capital.

So after having been turned down by a couple of investors from McKenna's address book, they finally found salvation in the person of Mike Markkula. Markkula was a retired Intel executive who had plenty of money to spend and was very interested in the emerging market of personal computers. When he saw Steve's enthusiasm and after Woz's demo of the Apple II capabilities, he decided Apple was a good place to invest in. He drew up Apple's first business plan and the deal was signed at his home on January 3, 1977. Part of the plan was the hiring of a new president, Mike Scott — an executive from National Semiconductor and one of Mike Markkula's acquaintance, as well as Woz's full commitment to the company through the resignation from his job at HP.



Steve Jobs with Mike Markkula in 1977



Regis McKenna and Steve in 1984

One of the first marketing decision taken by the young company was to make an impressive contribution to the first West Coast Computer Faire that would take place in April 1977. And it worked: Markkula spent \$5000 on the booth, on which were displayed Apple's brand new, stylish logo and an impressive lineup of three Apple IIs in their plastic cases — which were in fact the only three Apple IIs that had ever been built. Steve bought his first suit for the occasion.



The West Coast Computer Faire



Steve Jobs in his first suit

Early success

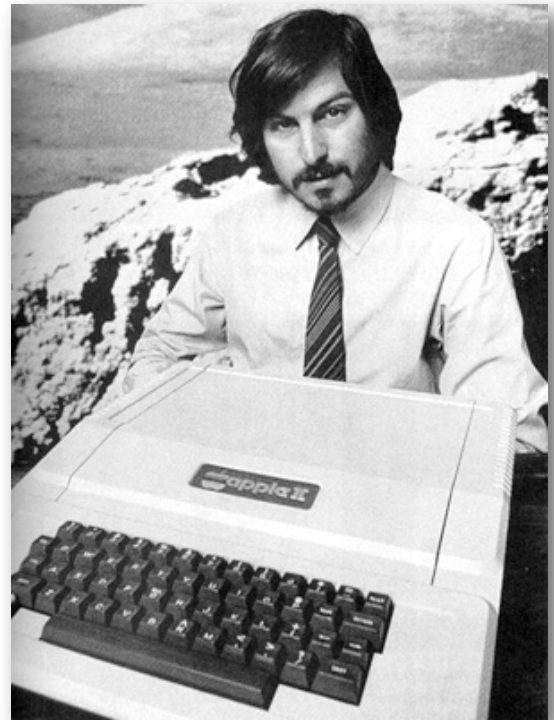
Apple's participation in the West Coast Computer Faire proved to be a great success. The company received 300 orders for Apple IIs on the show, twice as much as the total number of Apple Is ever sold. But this was only the beginning.

By January of 1978, Apple was valued as much as \$3,000,000. The Board of Directors had been extended to new investors: in addition to Markkula (who had originally invested \$250,000), it hosted the renowned venture capitalists Arthur Rock (\$57,600) and Don Valentine (\$150,000), as well as the Venrock firm (the venture capitalism agency of the Rockefeller family), which had put in another \$288,000.

With the arrival of the first Apple-II disk drives in early 1978, the computer made possible to wanna-be programmers and amateur hackers to write software that would work at a reasonable speed and could be transferred easily from one machine to the other. As a result, the number of Apple-II programs quickly increased. The combination of its revolutionary design and its large software library quickly made the Apple II the new gold standard for personal computing.

Although there were some tensions between Steve Jobs and Apple's president Mike Scott, the overall atmosphere at the company was euphoric. Work on the Apple III started to begin in late 1978. Sales of Apple II went through the roof: 2,500 were sold in 1977, 8,000 in 1978 and up to 35,000 in 1979, producing \$47 million in revenues for the 2-year old company. Apple was widely recognized as THE company of personal computing. As a matter of fact, there was no credible alternative to the Apple II at the time.

One of the key factors to its success was, surprisingly, the education market, because it allowed the teaching of the BASIC language. Steve had not foreseen this, but he would remember it later in his career. Another thing which destroyed the competition was the introduction of VisiCalc, the first personal spreadsheet ever, in the fall of 1979. It remained an Apple II-exclusivity for one additional year, and helped reinforce Apple's leading position in the PC market — until IBM's arrival in 1981.



Steve Jobs posing with an Apple II in the early 80s

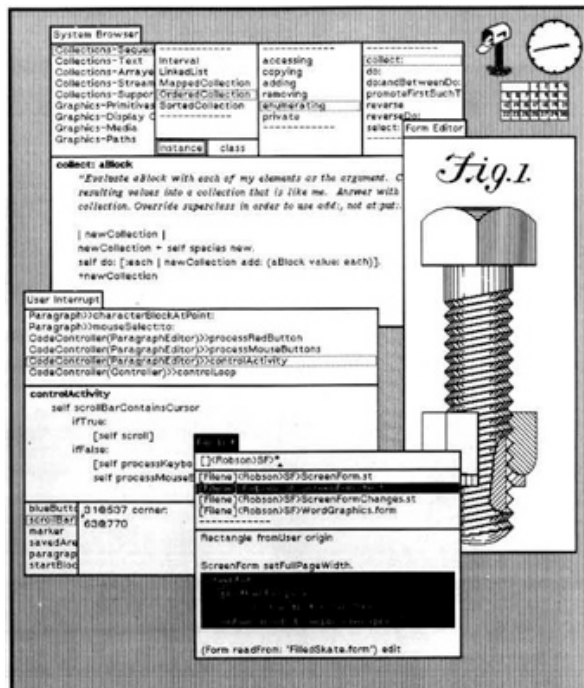
It was around that time that Steve started to change as a human being. His personality changed as he metamorphosed into a full-blown businessman. He was no longer a regular of the Los Altos Zen Center, and he started to polish his physical appearance by occasionally wearing suits.

It must be mentioned that at the age of 24, he had become a millionaire, thanks to Apple's sale of \$7 million of private stock...

Lisa

In early 1979, Steve decided he would start his own distinctive project, a computer whose success could not be attributed to Woz's great talent — unlike the Apple II. He decided to call it the LISA. The name that Steve chose was not innocent: it was the name of his daughter with his former girlfriend Chris-Ann Brennan (a girl he would not recognize as his own before a few more years).

In December of that same year, an event happened that changed no less than Steve's life and the future of computing. In return of an investment agreement with Xerox, a little team from Apple Computer which included Steve Jobs, the head of the Lisa Project John Couch, and a couple of programmers, was given a tour of Xerox PARC (Palo Alto Research Center).



Xerox's Alto, and its Smalltalk system

At the time, the Xerox PARC was regarded as the Land of Oz of computer development. And for a good reason: the inventions it had produced were destined to change computing forever; just to name a few: the Graphical User Interface or GUI, the mouse that went with it, computer networking (with the Ethernet), and the laser printer.

For those who don't know, the GUI is the metaphor of the desktop applied to computers. In short, the PARC researchers invented the concepts of point-and-click, copy-and-paste, files in nested folders and windows with scrolling elevators. They had actually implemented them all in a fully working computer environment, Smalltalk, which ran on a prototype Xerox Alto computer.

The biggest problem at Xerox PARC was not developing new technology, it was convincing Xerox's executives on the East Coast that their work actually was a revolution in the making. The PARC researchers never achieved to do so, and constantly remained frustrated by the non-acknowledgement of their talent. They also had to face a pricing problem: the Alto cost an estimated \$10,000!

What was going on at the PARC was not entirely secret: there had been similar tours by Stanford professors (the center was in fact located on the Stanford campus), and the press had already written about the GUI. But the tour given to Apple that day was of major importance for at least two reasons:

1- it proved Apple's engineers, Bill Atkinson in particular, that their dreams about "a more graphical way to do things" could materialize; it inspired them in letting them think that making a GUI work was actually possible.

2- it attracted Steve's attention to the GUI. It was like a bolt of lightning to him, as opposed to Xerox's stubborn executives. He would later say about it:

"Within 10 minutes, it was obvious to me that all computers would work like this someday."

(from *Triumph of the Nerds*)

He decided that this was the way to go for Apple, or more precisely, for the Lisa project. A hundred engineers were hired for the project alone, but everything did not go as smoothly as planned. To begin with, there were major tensions between Apple's three divisions: the Apple II group, which was considered an uncreative group, the Apple III group, which was still working on a project that had been launched in late 1978, and finally the superior Lisa group. Plus, the list of features that were to be added to the Lisa was growing so fast that the original objective of a \$2,000 office computer was completely forgotten. Lisa's price tag was nearing \$10,000, as expensive as the Alto!



*Steve Jobs and John Couch
in 1983*

Decisions were taken at the top of the hierarchy, i.e. Mike Markkula and Mike Scott. Apple was completely re-organized into three new divisions: the Accessories division, the Professional Office Systems (POS) division — which of course included the Lisa project— and the Personal Computer Systems division. Steve was aiming at the title of head of R&D at the POS division, a job that would have given him total control of the Lisa project. Instead, it's John Couch, the then-head of the Lisa project, who got the job. Steve was appointed Chairman of the Board.

This was justified by Steve's incredible charisma. At age 25, he was already a media-darling. In addition, a series of ads in the Wall Street Journal had made him an increasingly-recognized public figure.

This public image proved useful for Apple's initial public offering later that year. On December 12th 1980, Apple went public with a success no company had experienced since Ford's own IPO in the 50s. Steve, who owned \$7.5 million worth of Apple stocks prior to the IPO, was worth \$217.5 million by the end of the day. He became the youngest and one of the richest self-made men in America.



The Wall Street Journal's advertising campaign that made Steve Jobs famous



Steve and Woz on the day they both became centimillionaires in December '80



Macintosh

However, Steve refused to spend the rest of his life playing the part of the successful young entrepreneur. He wanted to be directly involved in the development of Apple's future products. And he was worried that the Lisa, with all the bureaucracy that came with it, would not be as great a computer as he had envisioned. Apple, whose workforce by then was over 1,000, had shown its limits with the introduction of the Apple III that took place with great fanfare in the summer of 1980 at Disneyworld. The computer turned out to have major design flaws and the first 14,000 models had to be returned to the company.

So Steve decided he would take over Jef Raskin's Macintosh project. One of Apple's earliest employees (#31), Raskin had written the manuals of the Apple II. He wanted the Macintosh to be a personal computer "as easy to use as a toaster". He had named the computer after his favorite apple (which is in fact spelled McIntosh).

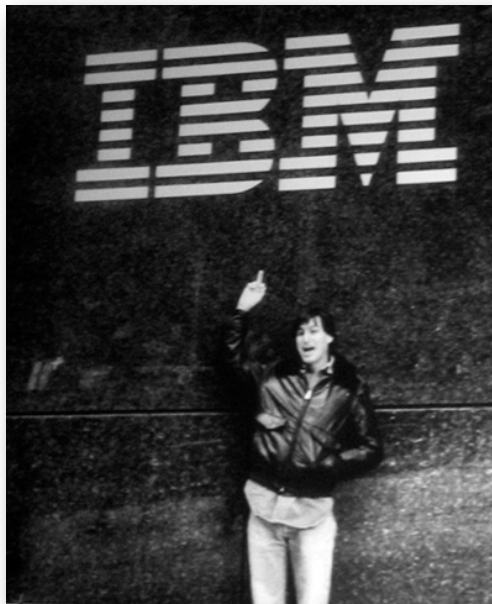
Steve had major disagreements with Raskin on how Macintosh should evolve. The latter wanted Macintosh to be very inexpensive, at a building cost of \$300, whereas Steve wanted it to be like a cheaper Lisa, keeping all its great features like the GUI. In order for these features to be implemented, the Macintosh would have to be based on the 32-bit Motorola 68000 chip. Raskin disagreed — and as a result, he was fired from his own project by early 1981.



Jef Raskin

Steve Jobs extended the team, which was already composed of hardware genius Burrell Smith and programmer Bud Tribble (as well as a couple more engineers) with new brains such as Rod Holt, Randy Wigginton, Bill Atkinson and Andy Hertzfeld. Other members such as programmer Steve Capps, marketing adviser Mike Murray and icon artist Susan Kare would jump in the boat later on. The idea was that this small, non-conformist group was going to save Apple with the Mac. This feeling of holy mission was reinforced when, in Summer 1981, a major competitor to Apple entered the personal computer market: IBM.

“It is coming down to Apple and IBM. If, for some reason, we make some big mistake and IBM wins, my personal feeling is that we are going to enter a computer Dark Ages for about 20 years. Once IBM gains control of a market sector, they always stop innovation — they prevent innovation from happening.”
(Playboy Interview with David Sheff, February 1985)



Steve in front of IBM's headquarters...

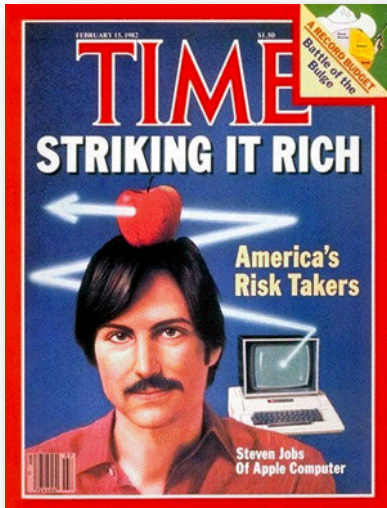
In late 1981, Steve convinced the Apple Board to give him full control of what would eventually be considered as one of the most important projects for the sake of Apple Computer: Macintosh. After all, Apple's revenues at the time only came from the Apple II and its licensed software... Despite its obvious superiority to the IBM PC, the Apple II was threatened by the new standard set by its competitor. The name IBM was so trusted in corporate America at the time that the motto of most companies' IT department was: “You can't be fired for buying an IBM”

The Mac team quickly became isolated from the rest of the company. They saw themselves as “Pirates” opposed to the rest of the company, which was dubbed “the Navy”. They even decorated their offices on Bandley Drive 3 with a pirate flag:



Steve Jobs with the Mac team
in front of the Pirate flag – and the Bosendorfer
piano – in 1984

This spirit of independence was imposed by Steve Jobs: he wanted to recreate the atmosphere of the early days in the garage, to protect the Mac team from being corrupted by the ambient bureaucratic atmosphere. Joining the Mac team was no easy task: you had to compete in video games with Andy Hertzfeld or Burrell Smith, prove able to eat pineapple pizza regularly, and answer questions from Steve such as “How many times have you taken acid?” or “When did you lose your virginity?”... Mac team members could easily be identified by their characteristic T-shirts sporting slogans such as “Working 90 hours a week and loving it” or “Let’s be pirates!”.



Steve Jobs on the cover of Time in February 1982

There was also a major event in Steve’s career that year, that would propel him even further into the public eye: he made the cover of Time Magazine in February 1982.

Actually, that same magazine had also originally contemplated giving Steve the title of *Man of the Year 1982*. But eventually, they changed their mind after reading a paper about Steve by their local correspondent, Michael Moritz. Instead, it was the Personal Computer which was named *Machine of the year*.

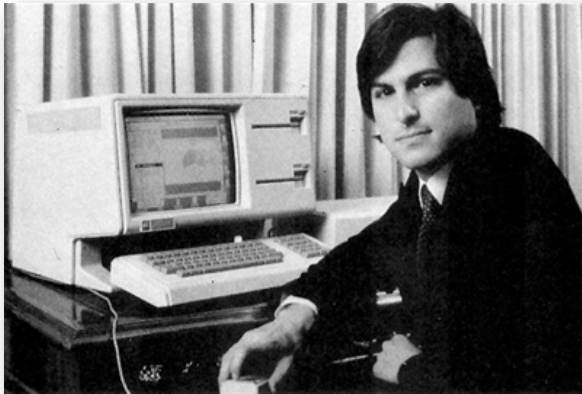
Called *The Updated Book of Jobs*, Moritz’s article about the development of Macintosh featured criticism about Steve’s tough managerial style and personality, as well as condemnatory quotes from his long-time friend Bill Fernandez and even Woz. Steve felt betrayed: he had given Michael Moritz *carte blanche* at Apple for his story. From this day on, he would remain suspicious of journalists. Rumor has it that he never spoke to Bill Fernandez again.

During the year 1982, Steve kept calling in developers to build programs for the Mac, keeping the rumor mill pretty active. He wanted plenty of software to be ready for the machine’s introduction. That’s about the time when he made a deal with software developer Microsoft. A little while later, Bill Gates’ start-up started working on Windows, an IBM-compatible sort of GUI, which Steve considered an out-and-out theft from the Mac. His suspicion would eventually prove justified — however, in those days, Windows was still ten years behind Mac technology.

In January 1983, Steve headed for the East Coast for the official launch of Lisa. Despite an encouraging critical response — after all, the Lisa was the first GUI-computer on the market — there were two major flaws in this introduction. First, Steve could not help himself from talking about his baby in the making, Macintosh, rather than the Lisa. He kept repeating that Mac was going to get all the great features and software of the Lisa, but sell for much less — \$2,000 instead of \$10,000. Secondly, he had to confess that Lisa and Mac would not be compatible. Indeed, each ran a different operating system! As a result, Macintosh cannibalized Lisa sales even before it was introduced! This fragmented product strategy proved a disaster to Apple.

While he was promoting Lisa in Manhattan, Steve Jobs met PepsiCo CEO John Sculley. Steve was so compelling that a few months later, he convinced Sculley to join Apple and become the company’s chief executive. Indeed, the company had gotten rid of Mike Scott a few months earlier during the mass firings of February 25th 1981 — known as *Black Wednesday*. The phrase Steve used to convince Sculley to join his 6-year-old company is now legend:

“Do you want to sell sugared water for the rest of your life or do you want to come with me and change the world?”
(quoted from Triumph of the Nerds)



Steve Jobs promoting Lisa in 1983



With John Sculley in 1984

There were changes in the Mac team as well. After the failure of both the Apple III and Lisa, all the company's eyes were turned to Steve's project. The team had lost its innocence of the early days and grown into a much larger division. The new members learned to deal with Steve's mercurial management style and all that came with it, including the so-called *Reality Distortion Field* — an expression still used today to describe his legendary charisma and his ability to make you buy into whatever he's talking about (for more, please read Mac stories from Andy Hertzfeld's Folklore.org [here](#) and [here](#)). There were also increasing tensions between the Mac group and the rest of the company. For example, Steve dubbed the Apple II group the “dull and boring product division”.

Then came the time of the introduction of Macintosh. After several postponements, the date of January 24th 1984, Apple's annual shareholders meeting, was eventually picked. Sculley approved a \$15-million marketing campaign for the launch, including a TV ad that aired during the Super Bowl game. Directed by Academy-award winner Ridley Scott, it pictured Macintosh as the savior from an 1984 Orwellian society where the figure of Big Brother represented, of course, Big Blue itself. This advertisement, which ran only once, is still considered one of the best commercials of the 20th century.



January 24, 1984

The show was a huge success... and a personal triumph for Steve Jobs. Mac itself called him its “father” while it was pronouncing its first public words (watch this video in [the Movie Theater](#)). As he came off stage, Steve called it “the proudest, happiest moment of [his] life”.

During the presentation, Steve talked about the \$20-million high-tech factory that would build Macintosh in Fremont, California (overlooking Ford and GM), and unveiled the Apple University Consortium plan. It



was a plan Apple had made up in order to sell as many Macs as possible to higher education. Apple salesmen, among which the brilliant Dan'l Lewin, had achieved to convince the most prestigious universities in America to become Apple dealers themselves, i.e. to sell Macs directly to students via their own computer stores. Every university that had joined the Consortium was committed to buy \$2 million worth of Macs for resale to students over a 3-year period. One year later, higher education would turn out to be the only market where Macintosh would be successful:

"I could ship every Macintosh we make this year just to those 24 colleges"
(Playboy Interview with David Sheff, February 1985)

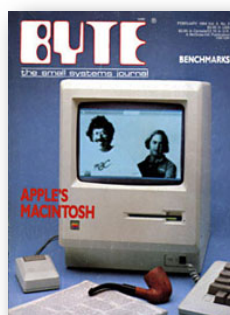
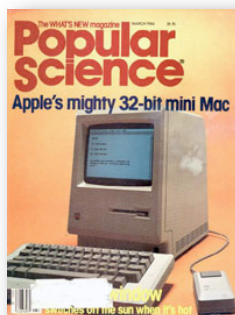
Although this was an overstatement, it is a fact that during the year 1985, the Mac/IBM PC ratio on US campuses went from 15-to-1 to 40-to-1! Macintosh had become a cult object to thousands of students.

There was an enormous media hype around the Macintosh introduction. Throughout the months of January and February 1984, Steve gave more than 200 interviews and posed for countless photos. The Mac itself made the cover of 20 magazines. The world kept hearing about the *"insanely great computer"* (in Jobs' own words) and the dynamic Sculley-Jobs duo, which was considered as a model for future corporate America.



Steve & the Mac team

Unlike Lisa, there was also a great emphasis on selected members of the Mac team who were considered key players in the machine's development. These were Burrell Smith and George Crow (hardware), Andy Hertzfeld and Bill Atkinson (software), Mike Murray (marketing), and Susan Kare (computer artist). There was controversy about the choice of some of these people, especially Kare, since she had been on the team for only six months. But such decisions were up to Steve, and nobody could contradict him.



Turning point

The first figures of Macintosh sales looked very promising — as much as 70,000 Macs were sold in its first hundred days. Then, John Sculley decided to appoint Steve head of the 32-bit division, a new division born out of the merger of the Mac and Lisa divisions (both computers used a 32-bit processor). However, the discrepancy between the way he handled the former Lisa group and the Mac group hurt the company. The Mac people felt they were being underpaid, while the Lisa people were jealous of the Mac team's perks like their first-class flying tickets or the piano and motorcycle in their building — which were both gifts from Steve Jobs, bought with his personal money. Not to mention the remaining Apple II division, which felt humiliated and left behind, while its product was still Apple's main source of revenues.

In addition, a few months after the Mac introduction, Apple started to see the Mac sales plummet. Steve Jobs' objective of 750,000 sales for calendar year 1984 appeared increasingly unrealistic. To understand the stall in Mac sales, Steve commanded a massive market-research test. What he found out was disastrous:

1- with its 64KB of ROM, 128KB of RAM and its single-sided disk drive, Macintosh was simply too slow to support its demanding GUI and to run software smoothly.

2- there was almost no Mac-compatible software at all! No developer had its product ready for the 1984 introduction. And the computer, which was targeted at small businesses, lacked the key spreadsheet software *Lotus 1-2-3*, which had already become a standard. People loved the Mac and its graphics, but they simply refused to buy it because they could not see what to do with it.

3- most important of all, studies of the “mystery shopper” (i.e. anonymous investigators asking about the Mac in computer stores to see how it was presented) showed that salespeople kept introducing the IBM PC and its 1000 software first, even if the shopper asked about the Mac.

In reaction, in Summer 1984, a national sales force was created to fire up retailers in promoting Macintosh. Head of marketing Mike Murray designed a campaign to entice people to try a Mac, called *Test drive a Macintosh*. And a new set of products, called *The Macintosh Office*, was introduced. But none of this worked. Steve feared that the Mac would end up as a historic flop.



Steve shaking hands with President Reagan as he is given the National Technology Medal

The company certainly could not afford it. As Steve saw it by then, it was IBM's fault. And John Sculley's. He did not understand the computer business! There were also tensions between Steve and Woz. In February 1985, they both were awarded the National Technology Medal by President Reagan, but had trouble hiding their mutual dislike at the event. Then, a few weeks later, Woz officially quit the company and made unpleasing comments about how it was being run. Their friendship seemed over for good.

The departure of Woz was the first in a series of massive defections from the company. Sculley got worried. Along with the disappointing Mac sales, this was a catastrophe for Apple. Sculley and Jobs got suspicious of one another. After a series of maneuvers involving marketing honcho Mike Murray and Apple France president Jean-Louis Gassée (who was regarded as the best possible successor to Steve as head of the Mac division), it all came to an end on Tuesday, May 28th 1985. Despite his attempts to convince board members, including Apple-cofounder Mike Markkula, to support him and oust Sculley, Steve lost the final battle.

Every single board member voted for his removal. In the reorganization plan that would be announced a few days later, there was absolutely no mention of his name.

“At 30 I was out. And very publicly out. What had been the focus of my entire adult life was gone, and it was devastating. I really didn't know what to do for a few months. I felt that I had let the previous generation of entrepreneurs down — that I had dropped the baton as it was being passed to me. I met with David Packard and Bob Noyce and tried to apologize for screwing up so badly. I was a very public failure, and I even thought about running away from the Valley.

(...) I didn't see it then, but it turned out that getting fired from Apple was the best thing that could have ever happened to me. The heaviness of being successful was replaced by the lightness of being a beginner again, less sure about everything. It freed me to enter one of the most creative periods of my life.

(...) I'm pretty sure none of this would have happened if I hadn't been fired from Apple. It was awful tasting medicine, but I guess the patient needed it.”

(Stanford Commencement Address, 12 June 2005)

This was the beginning of one of the darkest period in Steve's life. He didn't know what would become of him. At Apple, Sculley had moved him to a remote office he nicknamed Siberia. He felt like he had become an unappreciated pariah.

“There was nobody really there to miss me”

(Jobs Talks About His Rise and Fall, Newsweek, September 1985)

So Steve went on vacation. He traveled to Paris, Tuscany, Sweden and the USSR (still promoting the Macintosh Office). He even asked NASA if he could ride the Space Shuttle — and was turned down...

The perfect company

Then, one day in early September 1985, Steve had lunch with Nobel laureate and Stanford biochemist Paul Berg. Berg talked about his current research on DNA, and Steve asked why scientists didn't use computers to simulate DNA. According to Steve, this is how the idea of creating his next company, NeXT Computer, occurred to him. He wanted to build a computer aimed exclusively at the higher-education market.

A few days later, on September 13, he informed Apple's Board of Directors — which he still presided as Chairman — of his decision to form a new computer company. He intended to hire a few "low-level" people from Apple and resign as Chairman of the Board. The targeted market being so specific, the future company would not be a direct competitor to Apple, so

the Board congratulated Steve and expressed an interest in buying as much as 10% of his new venture.



NeXT's early founders
From left to right: Dan'l Lewin, Rich Page, Bud Tribble,
Steve Jobs, Susan Barnes and George Crow

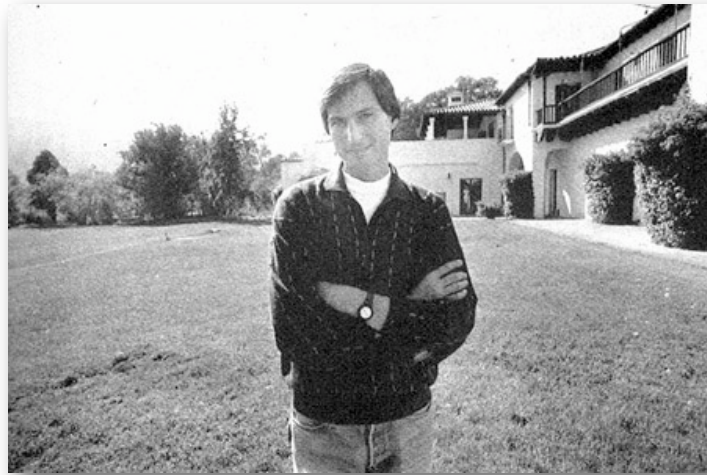
Here are the people Steve chose to hire:

- Bud Tribble, one of the first programmers of the Mac team (hired by Jef Raskin)
- Rich Page and George Crow, two hardware engineers
- Dan'l Lewin, the successful *Apple University Consortium* salesman
- Susan Barnes, a woman in finance

When John Sculley saw the list, he told Steve Jobs: *"These are NOT low-level people!"* Apple filed a suit against newborn NeXT, claiming that the computer it intended to build was too close to Apple's own *Big Mac* project. Because of their former high responsibilities at Apple, the NeXT founders knew too much about their future competitor. The *Big Mac* was to meet the higher education's demand for a 3M machine: a powerful computer with one megabyte of memory, a one-megapixel display, and one megaflop of power (the ability to perform 1 million operations per second) — hence the name 3M.

Steve fought back on September 17th 1985 by sending his resignation letter to a number of magazines and newspapers, and hand-delivering it to Mike Markkula. Then, he invited the press to his newly-bought [Woodside mansion](#) and talked about the end of his involvement with Apple Computer. He said to them:

“My relationship with the company is like a first love. I’ll always remember Apple in the same way any man remembers the first woman he’s fallen in love with.”



*Steve outside of his Woodside mansion
on September 17, 1985*

Apple’s lawsuit against NeXT quickly turned out to be nonsense: first of all, Steve was being considered a worthless person at Apple. Why would he suddenly become a threat to the company once he left? Secondly, it was impossible for Sculley to charge him for “stealing Apple’s confidential and proprietary information” and at the same time encourage him to “continue to bring innovation and creativity to the industry”, as he had claimed. And it was awful press for Apple to sue its own genitor. However, it brought instant media attention to NeXT Computer: if Apple was so afraid of a company that did not even have any business plan yet, its future would certainly be very bright. As Steve put it:

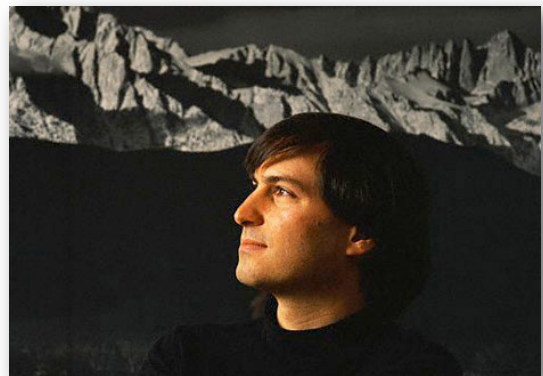
“It is hard to think that a \$2 billion company with 4,300+ people couldn’t compete with 6 people in blue jeans”

(Can Steve Jobs Do It Again?, New York Times, September 1985)

The end of Apple’s lawsuit allowed the NeXT adventure to begin for good.

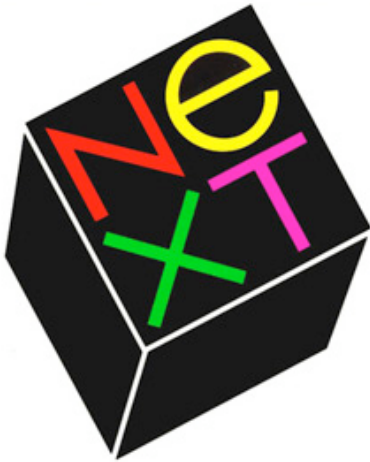
First of all, as many observers pointed out, the birth of NeXT was quite different from the birth of Apple; Apple’s first headquarters was a garage. NeXT’s first headquarters was Steve’s huge (yet unfurnished) mansion. Steve decided that his new start-up company deserved the best in every way. His personal fortune and fame gave him the necessary power to *build the perfect company* — from scratch.

So, only four months after its creation, the company settled in one of the Valley’s most expensive areas, the Stanford University Industrial Park, only a stone’s throw from Xerox PARC. Actually, one of NeXT’s first ten employees was a full-time interior designer who furnished the offices with glass walls, beautiful Ansel-Adams prints and a common area with hardwood floors that included a kitchen with granite counter tops and a lounge with U-shape sofas that sat 12.



Steve in front of a print by Ansel Adams

Steve also decided to spend no less than \$100,000 to commission a logo from Paul Rand, a Yale professor considered as one of the masters of design at the time. Way before anyone had any idea what the NeXT computer would look like, the company got itself a logo, as well as a lengthy pamphlet explaining the thoughts that went through its creator's mind as he was drawing it. It was also Paul Rand who suggested NeXT, with a conspicuous lowercase e, instead of NEXT (see below). News of the design got national media coverage, as everyone was extremely curious as to what fascinating Steve Jobs was up to.



Paul Rand said the lowercase e could stand for “education, excellence, expertise, exceptional, excitement, $e=mc^2$ ”

The logo was said to “brim with the informality, friendliness, and spontaneity of a Christmas seal and the authority of a rubber stamp”.

NeXT also differed from other Silicon Valley companies with its original culture and the egalitarian ideal it pursued. It was more a community with members than a company with employees. Salaries were pegged to groups instead of people. NeXT's salary policy until 1986 was quite simple: the senior staff earned \$75,000 annually, and the rest of the company, \$50,000. In addition to standard services, employees were also provided with a health club membership, counseling services and emergency personal loans up to \$5,000.

NeXT's first ambition was to be and remain a small computer company. It was to be solely owned by its employees, located in small offices, and design and build very few high-quality computers, all in the same area. However this ambition changed in 1987, when Steve realized he would never be treated seriously in the industry if NeXT remained small. He set up to build a billion-dollar company:

“Our smallest competitor is \$1.75 billion these days. (...) We have to get up to a certain level if we want to play in the sandbox”
(*The Entrepreneur of the Decade, Inc., April 1989*)

What must be understood here is that Steve's *Reality Distortion Field* never exercised its power as much as during NeXT's genesis. Everyone was wondering what revolutionary product the *wunderkind* was working on, and the secrecy policy was so strict that it remained so for three full years — in fact, until the unveiling of the NeXT computer. And all this time, the lure to attract new employees was not the machine, but Steve himself. Go work for NeXT was considered a *leap of faith*, because you signed up for dedicating your entire life to a company, without knowing exactly what you were going to work on. Steve Jobs used his extraordinary charisma to hire the best people. Just like during the creation of Macintosh, prospective hires had to pass an amazing number of tests by a lot of different people.

“You basically had to meet everyone in the entire company and they all had to give you the thumbs-up. It really felt like a fraternity. Everyone had to love you. So the feeling you got was that anyone who got through had to be ‘the best of the best’”
(an early NeXT employee quoted in Alan Deutschman's *The Second Coming of Steve Jobs*)

There was also the pride of being part of a project to serve higher education, to build a computer with the noblest purpose.



Ross Perot & Steve Jobs

The second major step in NeXT's early history came from a movie. The two first company retreats (the first in Fall 1985 and the second in early 1986) were filmed in a CBS documentary called *The Entrepreneurs*, that was aired nationally in November 1986 (watch it in [the Movie Theater](#)). In this movie, Steve and NeXT's employees were seen voicing concerns about the original deadline for the delivery of their computer — Spring 1987, when universities would be shopping around for the year 1988 — and reminding themselves of the message they got from colleges: they had to build a 3M computer for \$3,000. Multimillionaire H. Ross Perot, who had made its money from selling his own company, Electronic Data System, happened to see the program and was mightily impressed by Steve's fledgling company. He telephoned them: “If you ever need an investor, call me”.

When Perot made this call, NeXT was experiencing huge financial problems. It was still resting on Steve Jobs' original \$7 million investment and quickly running out of money. Yet it was very far from shipping its product. So Steve had started looking for new investors, as he refused to keep on pouring money into the company: he wanted to share the risk with others. Plus, a company whose funds came only from its founder would not look very serious, would it? He had first been turned down by venture capitalists who estimated that his \$30 million valuation of NeXT, a company that had still to release its first product, was way too high.

To see how much Ross Perot was seduced by Steve Jobs' charm, it suffices to acknowledge his agreed valuation of the start-up: no less than \$100 million! That was more than three times the price tag venture capitalists had judged overrated. (To Perot's credit, it must be pointed out that a few years earlier, he had refused to buy Microsoft — which in the meantime had already become a billion-dollar business).

Perot's investment helped convince the prestigious universities of Stanford and Carnegie-Mellon to join in, and all of a sudden, NeXT's valuation jumped to \$126 million — 63% of which belonged to Steve Jobs. The Board of Directors consisted of only three men: Steve Jobs, Ross Perot and Pat Crecine — the administrator at Carnegie-Mellon University. This was heaven for Steve because both men, though much older, were in awe of him, and would let him do whatever he intended. However, it would prove disastrous to NeXT's future.



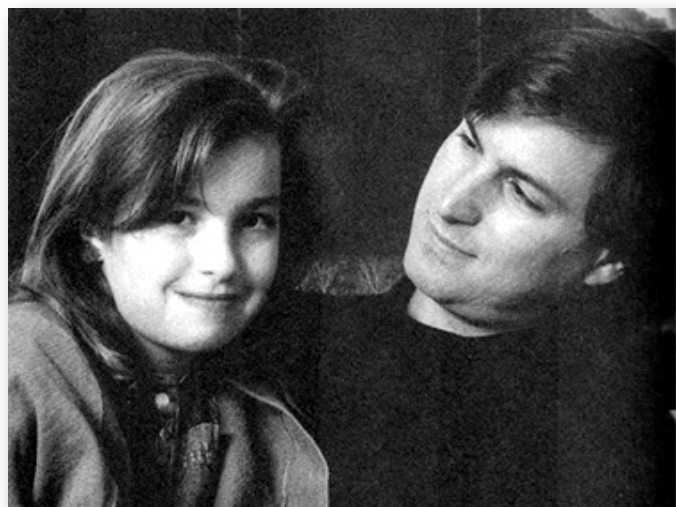
*NeXT's Board of Directors in 1988:
from left to right: Pat Crecine,
Steve Jobs and Ross Perot*

Before continuing, it is important to mention a major episode in Steve's personal life. In 1986, he officially revealed he had discovered his biological family. Most important of all, he had found out that his parents had married some two years after his birth, and that they had given birth to a girl. Steve exhilarated in meeting with his natural sister Mona Simpson, who was a writer. As a matter of fact, she had just published her first novel at the time, *Anywhere but Here* (which was later made into a movie featuring debuting actress Natalie Portman). Steve was incredibly proud of his sister's book, and he quickly filled NeXT's bookshelves with free copies of it.

He also started to spend more and more time with his young daughter Lisa. He would take her to NeXT's headquarters from time to time.



*Steve's biological sister,
Mona Simpson*



Steve and Lisa in 1989

The Cube

Progress on the NeXT computer was real slow, as Steve wanted his perfect company to build the perfect computer. And it wasn't just about the computer: its operating system, NeXTSTEP, was also aimed at being a real breakthrough in computing. And so it was. It was based on a stable and powerful OS developed by universities, UNIX. However, it featured a GUI as easy-to-use as the Mac's, unlike UNIX, that only rocket scientists could use. It also offered object-oriented programming, a revolutionary technology invented at Xerox PARC that allowed programmers to write complex software in record time. But developing such an amazing OS proved to be no easy task.

Steve's idea for the NeXT computer's appearance was that of a cube. Not an approximate cube, but a perfect cube whose edges would measure exactly one foot. He hired the design firm that had conceived Macintosh, frogdesign, to work out the details of the Cube's appearance.



And indeed, the NeXT Cube was of striking elegance. Yet the design choices had some disastrous effects on its manufacturing as well as its production costs. The use of magnesium, the color black, even the shape of a cube with perfectly right angles, all led the manufacturing cost to be ten times as high as originally expected.

Another of Steve Jobs' decision ended up being very costly to the success of his computer: that to build an in-house automated factory to manufacture it, just like Apple had done it with Macintosh. Just like the computer it was to assemble, the factory had to be perfect: it had to be as fully automated as any factory in the world, and based on American soil — something not to be disapproved by patriotic Ross Perot. Steve insisted that his computer had to be manufactured *“untouched by human hands”*. In addition to high quality, in-house production ensured him there would be no breach in NeXT's secrecy policy — his top priority. The NeXT factory was built in Fremont, not far from the Macintosh production plant.

Finally, one of the Cube's major design flaws was its storage technology. It used a magneto-optical drive, an unfinished technology being developed by Canon. Steve hated floppy disks, and he bet everything on this drive, by making it the only way to move data in and out of the Cube and to store data within. This would turn out to be a very expensive choice.

As a result of all this, the Cube's introduction date was constantly being put off, and its price kept on climbing. By the fall of 1987, there was still no working prototype to be shown to the academic world, which was starting to get impatient. And the more it waited, the more it would be tough for NeXT to release a successful product: unlike the release of Macintosh in 1984, by 1988, most universities already owned a large number of personal computers (mostly Macs, for that matter).

Right before the unveiling of the Cube, two major sugar highs occurred at NeXT which made the company feel very confident about its future — whereas it should have been quite

worried. First, a deal was signed with Steve's former arch-rival, IBM, for a possible future licensing of NeXT's software, NeXTSTEP, for PCs (IBM had started to get concerned by Microsoft's emerging monopoly due to the success of PC clones). Secondly, Canon invested \$20 million in the start-up in exchange of the privilege of selling NeXT computers in Asia.

Then, finally, came the day of the unveiling: October 12, 1988. It seemed like the whole world had turned its eyes to NeXT, impatient to finally hear about the latest creation of genius Steve Jobs. The excitement had built up to such a level that an East Coast reporter even said:

"Missing this would be like missing Thomas Edison unveil the phonograph. I don't want to tell my grandchildren I was invited but didn't go"
(The NeXT Generation: Stars Trek to SF, *San Jose Mercury News*, October 1988)

The media hype was so high that when a NeXT marketing person called the Wall Street Journal to purchase an ad, the person on the other end replied "Why bother?"

The show took place at San Francisco's Davies Symphony Concert Hall. Steve, who stayed on stage for nearly three hours, started his speech by the words:

"I think I speak for everybody at NeXT, saying it's great to be back." (*Applause*) "I think together we're going to experience one of those times that occur once or twice in a decade of computing, a time when a new architecture is rolled out that is really going to change the future of computing. And we've worked on this for three years. It's turned out in-cre-di-bly great..."
(quoted in Randal E. Stross' *Steve Jobs and the NeXT Big Thing*)

The show ended by a duet between the NeXT Cube and a violinist from the San Francisco Symphony Orchestra, who played together J.S. Bach's A-Minor Violin Concerto in order to show off the computer's astounding sound capabilities — made possible by its breakthrough Digital Signal Processor chip.



The press conference following the NeXT Cube introduction on October 12, 1988

The show was so well orchestrated that the audience, filled with experts and industry analysts, did not even realize how bad some of the news Steve had delivered were. First, the software that the Cube would use, NeXTSTEP, was still far from release, and would in fact not be ready before another six months. Secondly, the Cube's price was a lot higher than expected, at a whopping \$6,500, more than twice the amount of money universities had agreed to pay for a 3M machine! Altogether with the \$2,000 laser printer and an additional \$2,000 to \$4,000 for using a traditional hard disk (which would prove necessary, since the optical drive was so slow), the total cost of the NeXT system was above \$10,000!



Disappointments

Given this figure, it is no wonder that the NeXT Cube turned out to be a gigantic flop. By the time NeXT's salesmen tried to sell it to universities, students had already taken the habit of studying in their dorm room, with their own personal computer (usually, a Macintosh). To them, it was out of the question to be forced to go back to computer labs or libraries in order to use public computers. So universities saw no reason to buy a lot of NeXTs. In addition, the NeXT Cube was obviously not affordable to students: despite its high price, it was still a monochrome computer with very few useful software, whereas the Mac featured hundreds of educational programs and sold for almost ten times less.

Very few colleges bought NeXT Cubes, and they bought them in small numbers. To give you an idea, in 1988, the biggest sales in higher ed' were made at Cornell University (approx. 30 machines), at Allegheny in Pennsylvania (22 Cubes, but 138 more would follow), and at MIT (20 computers). The NeXT factory, which could produce up to 10,000 Cubes a months, was turning them out at the rate of 400 a month!

It became quickly apparent that NeXT had to broaden its target market if it wanted to make money. So in March 1989, the company announced it had completed a deal with Businessland, the nation's largest computer retailer at the time, to allow sales to the non-education market. The base price of the NeXT computer sold by Businessland was \$9,995,

all about Steve - www.romain-moisescot.com/steve/

even higher than the price for higher education. Although Businessland tried to sell NeXT Cubes as hard as it could, it failed.

The funny thing about NeXT is that, being a private company, it had no obligation of publishing its financial results. Therefore, practically nobody had any idea how bad the company was doing. Most analysts were misguided by the optimism of investors such as Canon, which purchased a 16.67% share of the venture for \$100 million in June 1989 — making NeXT's nominal market value raise up to \$600 million! In reality, the company only had some 200 employees and no revenue to speak of.

Businessland aimed at selling \$150 million worth of NeXT Cubes in its first year, i.e. from 10,000 to 15,000 machines. However, by the end of 1989, it had sold a grand total of... 360 computers. The numbers were so painful that NeXT's employees joked they were expressed in units of thousands and had had three zeros lopped off. The NeXT factory was now running at fewer than 100 Cubes a month, 100 times fewer than its capacity.

Notwithstanding, NeXT kept on bleeding money. In 1989, the company moved to new headquarters in Redwood City, along the San Francisco Bay. The new facilities were even more extravagant as their predecessors. Steve Jobs ordered the elevators to be removed entirely, in order to build wide staircases, including one designed by world-famous architect I.M. Pei that appeared to float by invisible means. The furniture included marble in the dining area, \$2,200 chairs and \$10,000 sofas in the common areas, plus \$450 phones in every office, each connected to a T1 line.



*Steve in front of the Pei-designed stairs
at NeXT's new Redwood offices*

The NeXT slab

In January 1990, Steve Jobs decided to react — at last — to the Cube's miserable sales. He asked his senior staff whether it was the right product, to which Dan'l Lewin replied they had to build a new, \$3,000 machine. This was the start of *Warp 9*, a crash program to redesign the Cube and have a new machine ready for Fall 1990.

The following month, that same Dan'l Lewin was the first of the 5 co-founders to leave NeXT. Steve Jobs had replaced him as the head of Marketing in July 1989, and he had got tired of the so-called *Hero-Shithead Roller Coaster*. This was an expression NeXT employees used to describe their boss's way of treating them. He would first use flattery to hire them, and once he succeeded, call their work "shit" (Susan Barnes called this the "*seduce-and-abandon mode*"). Steve supposedly alternated praise and humiliation all the time. It was his own personal way to make employees give the best they could to the company, because once they had been congratulated, they would do anything in their power to make it happen again.

However, this highly-criticized method did prove effective, because, in what seems a remarkable achievement in high technology, NeXT did release its new computer in September 1990.



The NeXT Station

"*This is it, the future of NeXT*" said Steve Jobs to the Davies Symphony Hall audience as he showed off four black computers: a faster Cube, an even faster Cube with enhanced color capabilities, and two of his new *slab* computers — a monochrome NeXT Station which sold for \$5,000 and a NeXT Station Color, for \$8,000. The master showman also shared the spotlight with Lotus' president, whose company had decided to release their new spreadsheet program exclusively on the NeXT platform. This piece of software, called Lotus Improv, was supposed to be a *killer app* (an application that alone justified buying the computer able to run it): it was a new spreadsheet on which you could use plain English in formulas instead of cell numbers (e.g. $A2 = B3 - C3$ could be replaced by *Profits = Receipts - Expenses*). Lotus Improv, Steve decided, would be bundled with any new NeXT machine.

The partnership with Businessland ended soon, as the giant retailer collapsed in 1991. The new marketing strategy was to use 100 small independent computer dealers all over the United States, each selling NeXT's machines with a measure of exclusivity in their immediate environment. NeXT also started expanding internationally: it made its European debut at the 1991 CeBit trade show in Hanover, Germany, the largest trade show in the world. Soon, the company signed up 100 separate European dealers, each pledging to invest \$1,000,000 setting up sales, training and support. There was also an increase in Japanese sales through the deal with Canon. By mid-1991, 50% of NeXT's sales were made outside the US.

The new computers and the new strategy brought hope to the company, whose revenues for year 1990 were only \$28 million.

There were also big changes in Steve's personal life. On March 18, 1991, he married Laurene Powell, a Stanford MBA student, at the Yosemite National Park. The plain ceremony was conducted by Zen buddhist Kobin Chino, Steve's guru, whom he met in the early 1970s. He was actually the one who encouraged the young man to start Apple instead of becoming a Zen monk. Laurene gave birth to Steve's son in September of that same year; the couple named the boy Reed Paul, in honor of Steve's alma mater (sort of). The initial birth announcement read:



"Laurene and I were blessed with a child, a boy, as yet unnamed; new product names are hard..."

Steve also started to make his now-teenage daughter Lisa part of his new family. According to everyone at NeXT, Steve's new fatherhood changed him in profound ways, including some positive effects on his behavior towards employees.

As far as the relationship with IBM was concerned, things quickly turned bitter. Remember, in 1988, when the Cube was unveiled, Jobs had promised he would cooperate with IBM to have his NeXTSTEP software running on an IBM-compatible machine. In 1990, the partnership was officially cancelled. There were many reasons for it to end, including:

- 1- NeXTSTEP was hard to adapt to IBM's own version of UNIX because it was technologically far ahead of it
- 2- NeXT didn't prove very cooperative because it refused to let IBM engineers use the latest versions of their software.

Steve was still suspicious of the giant IBM:

"I'm not stupid enough to give you everything I have, when you have 27,000 salespeople"
(quoted in Steve Jobs and the NeXT Big Thing)

As a result, IBM turned to Apple and signed an agreement for developing a new object-oriented operating system, based on the same principles as NeXTSTEP.

1991 turned out to be another disappointing year. After the Q1 results, which showed NeXT had once again failed to achieve profitability, Ross Perot and Canon started to get more involved in the company and to criticize some of Steve's decisions, such as the in-house manufacturing. In May 1991, Jobs hired Mike Slade, a former Microsoft executive, to take charge of the Marketing Department. He pointed out that NeXT should position itself in the

workstation market, not the personal computer market, and that therefore its main competitor was Sun Microsystems, and not Apple or IBM.



*Steve Jobs (middle, left) having lunch with Canon executives at the NeXT factory in 1989.
Note the luxury of the room... this is inside a factory!
Also note the huge Cube model at the end of the table.*

NeXT Software, Inc.

NeXT's revenues did increase in Q2 1991, reaching \$46 million. The problem was that NeXT kept losing money as much as ever, in part because of its distribution model involving boutique dealers. By the end of the third quarter of 1991, NeXT's sales fell almost by 50%. This was enough for Perot, who discretely left the very small club of investors in NeXT. His departure, along with the cancelled agreement with IBM, made Canon the one and only remaining possible savior of a company that was *hemorrhaging money*. The Japanese accepted to put in \$10 million, then an additional \$10 million, then an additional \$20 million... afraid they might lose all of their original \$100+ million investment. In all, NeXT had blown through \$250 million of investment capital and was still financially very unhealthy.

But of course, no one knew about it. Because of Steve's optimistic announcements, Wall Street investors thought NeXT was a success and they were begging Steve to let them invest in it. On October 31, the news of NeXT's initial public offering was made. It let NeXT's employees dream of better tomorrows once again. However the IPO never materialized.

None of this proved sufficient in making NeXT a lucrative business. Increasing pressure from many executives in the company was put on Steve Jobs to abandon NeXT's hardware operations. It was obvious to many that the only way NeXT could possibly succeed was by

licensing its software to other manufacturers. The era of proprietary technology, where a single company provided both hardware and software — the way Apple had always done it — was thought to be over. Steve, who delighted in designing beautiful computers, who loved spending time in NeXT's high-tech factory, who called himself a “product guy”, refused to give up hardware. However, he did accept to license NeXTSTEP.

The announcement was made in January '92, at NeXTWORLD Expo, in San Francisco. During the keynote, Steve talked about the development of NeXTSTEP 486, a version of NeXTSTEP that would run on Intel's 486 IBM-compatible chips. However the OS would not be ready before another nine months. He also announced NeXT's total sales in 1991, which were worth \$127.5 million.

Two months later, Steve hired a new COO, Peter van Cuylenburg, as part of a deal with Canon. Van Cuylenburg had to deal with the many problems the company had to face, such as the delay in the progress on NeXTSTEP 486, which would not be ready until 1993 — forcing potential customers to buy NeXT's expensive hardware to run NeXTSTEP; and the constant bleeding of money, which was compensated by an ultimate investment from Canon, which put in \$55 million, and forced Steve to invest \$10 million. The company was doing so bad that it kept losing its most precious executives: Mike Slade left, followed by co-founder Bud Tribble and his wife co-founder Susan Barnes. The exodus continued with the VP of Sales Todd Rulon-Miller, quickly followed by early co-founder and head of Hardware Rich Page. George Crow was the only original co-founder that remained, along with Steve Jobs of course.

Then came the greatest outrage: COO Van Cuylenburg betrayed Steve Jobs. Exactly the way it had happened at Apple with John Sculley some seven years earlier, the COO had contacted Sun's Scott McNealy and proposed that Sun should buy NeXT, kick out Steve and install him, Peter Van Cuylenburg, as head of the company. McNealy's sense of honor had him make a phone call to Steve to inform him of the perfidy. Van Cuylenburg was promptly escorted to the door, but this episode put Steve even further into depression.

On February 11, 1993, Steve Jobs officially confirmed he had given up and shut down NeXT's efforts in hardware. The company had morphed into a software business, NeXT Software, Inc. More than 300 of NeXT's 530 employees lost their job on that day, and the high-tech factory was transferred to Canon, which sold all of its furniture — Herman Miller chairs, NeXT Cubes and other unused laser printers — in a memorable auction sale in September 1993. This was disastrous to Steve Jobs.



Steve with Sun Microsystems' boss Scott McNealy. The cubes they are holding represent their support of object-oriented software.

Pixar

It is now time to talk about Steve's other company, the one that would save him from his career's nadir: Pixar Animation Studios, Inc.

The story of Pixar began in 1985. At the time, it was a little group of almost 50 people, moving from one multimillionaire's lab to another. Most of them with very advanced degrees, they had been working together for 15 years, sharing the same passion: computer animation. When Steve paid them his first visit, they were owned by Lucasfilm Ltd. When he saw the high-resolution graphics that were displayed on their computer displays, Steve was stunned. He even compared this to the reaction he had had a decade earlier at Xerox PARC. He agreed to purchase the fledging operation from George Lucas, who asked for \$30 million. However, desperately needing money because of his divorce, Lucas continuously diminished his price and, after having tried other investors, finally signed a deal with Steve in February 1986, valuing Pixar at \$10 million.

At the time Steve bought Pixar, the little company — referred to as “the hobby” at NeXT — was headed by computer scientists Alvy Ray Smith and Ed Catmull, and former Disney animator John Lasseter.



Alvy Ray Smith, Ed Catmull and John Lasseter

Steve dedicated little time to Pixar: computer graphics just wasn't his expertise. Besides, Pixar's offices were geographically inconvenient for him because they were located north of the San Francisco Bay. Steve visited Pixar's facilities no more than five times between 1986 and 1992.

Pixar's leadership in C-G (computer-generated) animation was never contested. As early as 1986, they sold their own computer, the *Pixar Image Computer*, which was a \$135,000 graphics station that could produce the most advanced 3D animation of the time. To show off its power, the Pixar team made the short film *Luxo Jr.* (see its page [on Pixar's website](#)), which was first displayed at the Siggraph computer animation trade show, and got so popular that it was nominated for the 1986 Oscar for Best Animated Short Film.

Steve's involvement with Pixar was limited to the monthly visits that Alvy Ray Smith and Ed Catmull made to NeXT's headquarters in Palo Alto, then Redwood. He would concentrate on the company's strategy, especially in marketing, an area the engineers knew almost nothing

of. However, the expensive Pixar computer never met success: only 120 of them were sold throughout 1986 and 1987. This wasn't enough to fund the 120-employee company that cost more than \$10 million a year.



Steve was concerned about Pixar's perpetual loss of money, and he threatened many times to shut down John Lasseter's animation division, which he considered useless. However, he changed his mind after the team's *Tin Toy* ([Pixar](#)) won the Oscar for Best Animated Short Film in early 1989.

This success didn't make anyone more willing to buy Pixar's computer. So, throughout the course of 1989, Steve decided to cut the hardware business, and fired almost half of Pixar's workforce.

The only people left were the animators and the software engineers. Pixar's new goal would be to sell software, or more precisely its award-winning 3D-animation software, *Renderman*.

In July 1989, John Lasseter's new short film, *Knick Knack* ([Pixar](#)), was another great success at the Siggraph convention. Pixar started to gain more attention from animation colossus Disney, which tried to hire John Lasseter back. But he refused: he needed all of his engineer colleagues to do great work. So in Summer 1990, Pixar started talks with Disney about making a 3D-animated feature film. Yet the talks stalled and nothing happened.

Steve saw no end to Pixar's difficulties — including the departure of long-time president Alvy Ray Smith — until May 1991, when Disney contacted him again for the making of a fully-animated feature film. He went to Los Angeles and met with Disney honcho Jeffrey Katzenberg, with whom he signed a deal that saved Pixar. It was a three-picture deal, stating that the first movie would be paid \$15 million. Pixar would also keep 12.5% of the revenues from ticket sales. The work on *Toy Story* began...

Toy Story

In January 1995, after almost two years of retreat from the public scene, during which he spent most of his time with his 2-year-old son Reed, Steve finally understood that buying Pixar was one of the best decisions he had ever made. The media attention that his "other" company was soon going to attract could give him a way to redeem his career.

"That was the moment Steve realized the Disney deal would materialize into something much bigger than he had ever imagined, and that Pixar was the way out of his morass with NeXT"

(Ralph Guggenheim quoted in Alan Deutschman's The Second Coming of Steve Jobs)

From then on, Steve started to get increasingly involved with Pixar. Nevertheless, he could never fully exercise his power over there like he used to do it at Apple or at NeXT, because all of Pixar's employees were faithful to only one man: John Lasseter, the creative genius behind *Toy Story*.

Then Steve Jobs started to build up a plan that would prove to be one of the most successful moves in his career. He planned to take Pixar public. But he did not want to do it on a

random date: Pixar would enter the public market in late November, only a couple of weeks after the Thanksgiving release of Toy Story. That way, he would be able to take full advantage of the media hype and glamour around the movie that only Hollywood could produce.

It was decided that 6.9 million shares would be sold to the public. John Lasseter was given 800,000 shares, and Steve kept 30 million shares, or 80% of the company, for himself — given the original introductory price of \$14 a share, it translated into respective wealths of \$11.2 million and \$420 million.



Steve under a huge Luxo Jr., Pixar's symbol

Everything went as planned, and even better than that: Toy Story was a critical success and earned as much as \$29 million in US box-office receipts during its opening weekend. On November 29, the trading of Pixar's shares was officially opened at Wall Street. The new introductory price had been set at a higher \$22 a share. In 30 minutes, it raised up to \$49. Steve Jobs was suddenly worth \$1.5 billion.

After this *tour de force*, which gave Pixar a financial strength it had never-before enjoyed, Steve came back to Disney to re-negotiate the deal with CEO Michael Eisner. With his remarkable salesmanship, he negotiated a landmark deal for his company: in exchange for five more movies for Disney, Pixar would get:

- 1- a 50/50 share of production costs and revenues
- 2- creative control over its movies
- 3- equal billing: the Pixar logo would appear as large as the Disney logo on any promotional item, and it would remain onscreen for the same amount of time.

The following year, in 1996, Steve set up brand new facilities for Pixar in its home town of Emeryville, California. This was maybe the only field where he could exert influence on the company's life, other than distributing pay checks. However he could not make Pixar's employees agree on his novel idea for encouraging interaction between coworkers: putting only one single bathroom in the complex. For 400 people. The restrooms were to become the central place for meeting and mingling... That concept, strangely, never materialized.



The entrance to Pixar's studios in Emeryville, north of San Francisco

The return to Apple

Before moving to Steve's return to Apple, it seems necessary to study how the company had been doing during his absence.

Remember, when Steve left, Apple was having a hard time trying to sell its latest generations of machines, Macintoshes and Lisas. Ironically, the Mac sales took off only a few months after Steve's removal — and thanks to a project that almost only he had supported: the Laser printer. See, the power of the GUI appeared obvious when it became possible to use WYSIWYG technology. WYSIWYG stands for *What You See Is What You Get*; combined with the Laser printer, such software would let you print exactly what you saw on the screen of your computer.

Just like the GUI, the mouse, computer networking and object-oriented programming, the Laser printer was invented at... Xerox PARC. The scientist who developed it, John Warnock, left the PARC to create his own company, Adobe Systems Inc. Two to three weeks after the foundation of Adobe in 1983, Steve Jobs, against the vast majority of Apple's executives, canceled Apple's internal Laser-printer project and bought a 15.9% share of the startup. This would turn out to be Apple's salvation, as it allowed the creation of a brand new market, desktop publishing. For many years, only the Mac platform was able to provide a real WYSIWYG experience. It became the standard choice for creative professionals — and still is today. However, as we know, the Mac's success came only after Steve's departure.

The years that followed were the most profitable for Apple during Steve's absence. Half of the \$2,000 Macintosh's price tag was pure profit.

However, John Sculley had not anticipated the emergence of a threatening rival: Bill Gates' Microsoft. Remember, Steve had grown increasingly suspicious of this software developer, whose only product when he started to work for Apple's Lisa and Macintosh projects was DOS, the operating system used on IBM PCs. He was right: Gates used his privileged relationship with Apple to steal some of its latest technology and develop a GUI of its own,

Windows, that would run on top of its archaic MS-DOS system — which was actually derived from Tim Patterson's QDOS, the *Quick and Dirty Operating System*.

The problem was that IBM, unlike Apple, had chosen to allow cloners to compete with its own PC on the hardware market. Big Blue had not anticipated that cheaper clones would soon destroy the domination of its computer. New companies like Compaq and its portable PC, or Dell, started to appear and got a larger and larger share of the PC market.

Notwithstanding, the deal between IBM and Microsoft allowed the latter to license DOS to this new competition. So, even though it wasn't making any money from the IBM PC sales, Bill Gates eventually became the richest man on the planet by selling DOS to all the other PC manufacturers.



Bill Gates in 1992

As IBM watched his partner getting bigger and bigger and its market share diminish, it got frightened and started work on its own proprietary operating system, OS/2. In response, Microsoft started work on Windows. The OS/2 project and the big difficulty IBM experienced to develop it were actually the reason it had approached Steve Jobs' NeXT to use NeXTSTEP, whose technology remained far more superior to Microsoft's.

As for Apple, they sued Microsoft for copying the *look-and-feel* of its Macintosh operating system, Mac OS. This was a difficult issue, especially since Apple itself could have been blamed for copying the *look-and-feel* of Xerox's Smalltalk system a decade earlier. Apple eventually lost the lawsuit, which allowed Microsoft to continue its work on Windows. In 1990, it released Windows 3.0, 30 million copies of which were sold in its first year.



Then, in August 1995, came the *coup de grace* for Apple. The release of Windows 95, which combined DOS and the user interface program, was a huge success for multibillionaire Bill Gates. 110 million copies were sold in just two years, setting it as the PC industry's unrivaled standard.

Apple's market share fell down to around 4%, making it a small player in the market it had created! Its annual sales had gone from \$11 billion to \$7 billion, and during calendar year 1996, it had lost \$1 billion. In February 1996, Businessweek even made its cover with the headline *The fall of an American icon*, under the Apple logo. It seemed like everything was over for the "fruit company" (*Forrest Gump*, 1994). What had happened? In fact, it all seemed to come down to the loss of its spirit, of its soul, best incarnated by... Steve Jobs himself.

Apple had forgotten what had made it successful: its innovative force and the bold aesthetics that came with it, the hip image of its leadership, and its public aura of non-conformity and creativity. It had all started with John Sculley:

"What can I say, I hired the wrong guy... He destroyed everything I'd spent 10 years working for. Starting with me, but that wasn't the saddest part... I would have gladly left Apple, if Apple would have turned out like I wanted it to."

(Steve Jobs talking about John Sculley in *Triumph of the Nerds*)

Sculley was forced out of the company in 1993. He was followed by two even more uncharismatic leaders, Michael Spindler and Gil Amelio. Gil's plan to save Apple was to make it compete with Microsoft's Windows NT on the workstation market. Failing to complete its own server system, Apple's only choice was to buy it from another company. The first choice had been to buy BeOS, from Jean-Louis Gassée's Be. If you recall, Gassée was the head of Apple France who was picked by Sculley in 1985 to run the 32-bit division in place of Steve Jobs.

Then it occurred to the Apple's board that they had another option: buying Steve Jobs' struggling NeXT Software, Inc. They understood the public relations value of having the founder go back to the company as well:

"I'm not just buying the software. I'm buying Steve."
(Gil Amelio quoted in Alan Deutschman's *The Second Coming of Steve Jobs*)

Negotiations started in December 1996, and then, on December 20, Apple officially bought NeXT for \$430 million. Steve was appointed *Informal Adviser* at Apple.



*Apple's CEO Gil Amelio with Steve Jobs
on December 20th 1996*

One week later, on January 3rd 1997, Gil Amelio unveiled Apple's disastrous results for Q4 1996: sales had fallen down 30% from the preceding year. Things did not seem to improve, and a quarter later, they announced a loss of \$708 million for Q1 1997, making the total amount of losses under Gil's presidency a whopping \$1.6 billion.

The board ousted Amelio on July 9, allowing Steve Jobs to undertake a palace coup. He purged the board from old ineffective members, such as the everlasting Mike Markkula, and installed new people, most of them from the high-tech industry — including one of his best friends, Oracle's Larry Ellison. And, of course, he joined the board as well, as Pixar's CEO.

The iCEO

These major changes were announced on August 6th 1997, at MacWorld Expo in Boston. Steve unveiled the names of the new board members, and then dropped the bomb: Apple was going to partner with its archrival, Microsoft. The audience went wooh when they saw Bill Gates' face appear in Orwellian proportions on the huge screen behind the stage. The partnership included:

- 1- the end of every patent lawsuit between the two companies
- 2- a 5-year commitment from Microsoft to keep releasing updates to the Mac version of its Office software, in exchange of Apple making Internet Explorer the default browser on its Macs
- 3- a \$150 million investment in Apple from Redmond, in the form of non-voting shares



Orwellian Bill Gates and a tiny Steve Jobs at MacWorld Boston 1997

On September 6th 1997, Steve Jobs officially became the interim CEO of Apple Computer, Inc., the company he had founded more than 20 years earlier. He took drastic measures to make Apple healthy again. First off, he started to ingurgitate an extraordinary amount of information about the company, getting to know every project it was working on and every services it provided. He was *micro-managing* at a very high level. His first impression was that Apple got lost by working on too many products. Gil Amelio had cut the number of R&D projects from 350 to 50. Steve cut it from 50 to a dozen. He brilliantly understood that for Apple to succeed, it had to focus on a very small number of products, but they had to be *great* products.

The return of Steve Jobs had major effects on the everyday life at the Apple campus. He enforced new rules, like non-smoking and the banishment of pets. He set up a brand new cafeteria with food caterer // *Fornaio* from Palo Alto, whose menus included tofu most of the time. He also began to apply what had been his top priority at NeXT, that is, the secrecy policy. He put up a poster in his office from World War II, stating that *Loose Lips Might Sink Ships*.



The first public measure that Steve Jobs took was the launch a new ad campaign that would later be recalled as the *Think different* campaign. The purpose was to take full advantage of Apple's strongest asset, its brand name — thus, no product could be seen on any of the ads. They pictured photographs of geniuses of modern times, implying that Apple, the innovative, rebel company, was back ([see the video here](#)).



On January 8th 1998, one year after his return to Apple, Steve announced at MacWorld Expo in San Francisco that he had made the company profitable again. Thanks to spending cuts and the success of its high-end G3 computers, it had made a \$45 million profit in Q4 1997.

Turnaround

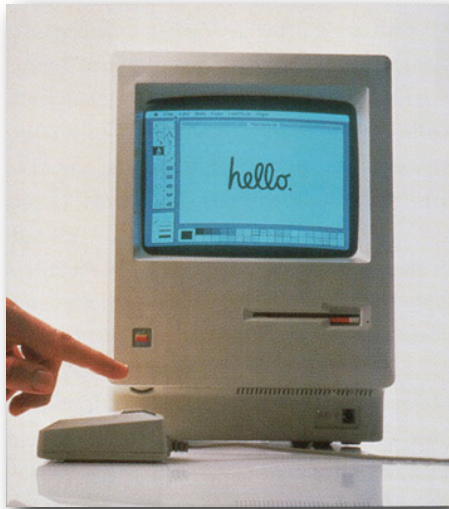
Steve's biggest coup was yet to come. One of the few projects he had agreed not to shut down was that of a personal computer with a sleek breathtaking new design approach, called the iMac. The iMac's looks had been conceived by British designer Jonathan Ive, who would soon become head of Apple's Industrial Design division.



Jonny Ive

In addition to its revolutionary design, including its non-beige color (!), the iMac featured personal touches from Steve Jobs: he insisted that there be *no fan* and *no floppy disk drive*, just like he had the floppy drive removed from the NeXT Cube and the fans from the original Macintosh. The iMac was to be an *all-in-one computer*, just like the Mac of 1984. The *i* in iMac stood for the Internet, because the computer granted easy and fast access to the World Wide Web.

The iMac was unveiled on May 6th 1998, in the very same auditorium that hosted Apple's 1984 Annual Shareholders Meeting, the Flint Center in Cupertino. Obviously, that choice was not random: it was a clear indication that Steve Jobs was back with an *insanely great* computer. To make the reference to the original Macintosh very clear, the iMac displayed a huge picture stating: *Hello (again)* — the same that had been used with some fourteen years earlier.



Steve and the iMac saying "hello" (right), like the original Macintosh (left)

Apple sold 278,000 iMacs in its first two months and over two million in its first two years. It was a clear signal that Steve’s management was the right path to a brighter Apple.

The product strategy evolved to a very simple one. In fact, it was down to a single square matrix. Apple would release four products: PowerBooks, Power Macs, iMacs and iBooks. When iMac was introduced in 1998, the Power Mac and PowerBook line-ups had already been revised. They kept being updated, and on January 5th 1999, Steve announced two major evolutions in the firm's computer designs. The beige Power Macs were being replaced by a stunning translucent new design recalling that of the iMac, and the iMac itself was going from one to five colors. This bold move helped make the iMac a cult object and a symbol of late 20th-century design.

	Pro	Consumer
Desktop	Power Mac	iMac
Portable	PowerBook	iBook



The new iMac line-up unveiled at Macworld SF 1999

In July 1999, at Macworld New York, Steve announced the long-awaited and much-sSpeculated Apple consumer notebook, iBook. iBook was based on the concept *iMac to go*, and, just like iMac, it turned out to be an outstanding success. During that same conference,

Steve Jobs introduced AirPort, Apple's Wi-Fi platform, making the company a pioneer in wireless-networking technology. One year earlier, it had already pioneered another new technology that has now become a standard, with the iMac: USB connectivity.



Steve with Noah Wyle

Steve also used the MWNV 1999 keynote to demonstrate his incredible showmanship and the ability he had to play with his public image by inviting onstage Hollywood actor Noah Wyle, disguised as the iCEO himself (watch the video in [the Movie Theater](#)). Noah Wyle had played Steve's role in a TNT movie about the birth of personal computing called *Pirates of Silicon Valley*.

While the product matrix kept being updated and Macs sales kept increasing, it became more and more obvious that Steve's interim role was nonsense. Nobody dared contesting his leadership of Apple. In the meantime, Pixar had slowly become the most successful animation studios of all time, with the release of two more major hits for Disney: *A Bug's Life* and *Toy Story 2*, the sequel to its first 3D feature film.

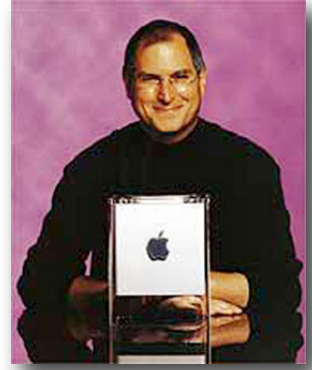
So, on January 5th 2000, at the very end of his Macworld keynote speech, Steve announced that he was officially endorsing the title of Apple's CEO (watch the video in [the Movie Theater](#)). The crowd responded with cheers and a standing ovation. Many observers noted that, unlike the previous zenith in his career, the Macintosh unveiling on January 24th 1984, where he had taken all the credit for the design of the machine, this time he dutifully thanked every Apple employee for their hard work, and called them *"the most talented people on the planet"*. In fact, ever since he has come back at Apple, Steve always ends his keynote speeches by a round of applause for the Apple staff. It looks as if his failures at NeXT have made him gain more maturity and modesty.



Steve officially becomes Apple's CEO in front of a cheering crowd at Macworld SF 2000

As he was taking over as Apple's CEO, Steve also changed some of his financial habits. Even though he insisted on keeping his \$1 annual salary — just enough to be allowed to apply for the company's health plan — he accepted two gifts from the Board of directors: options on ten million Apple shares (worth hundreds of millions of dollars) and a much-discussed Gulfstream V private jet, worth \$110 million.

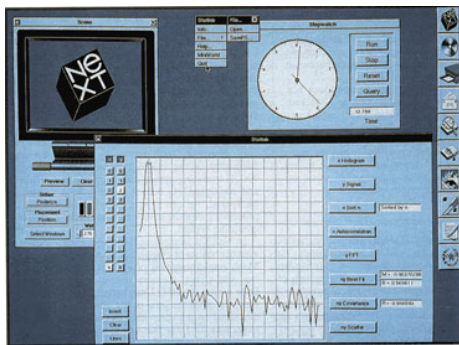
2000 proved to be another milestone year for Apple in many respects. To start with, it was the year the company announced the extension of its product matrix, through a computer of revolutionary design: the G4 Cube. It was an 8-inch cube that was as powerful as a Power Mac tower. To anyone who knew Steve's history, it was an obvious reference to one of his most beloved project, the NeXT Cube. And the comparison did fit well on many standpoints: yes, the G4 Cube, just like the NeXT Cube, had a stunning design and embarked state-of-the-art technology; but it also was not made to meet any market's particular needs. It was too expensive to the common home or education buyer, and was not adaptable enough to satisfy pro customers. At the end of the road, the G4 Cube ended just like the NeXT Cube: a huge flop, which remained in Apple's line-up for just 12 months.



More importantly, it is in January 2000 that Steve showed the first glimpses of Apple's next-generation operating system, Mac OS X. Mac OS X was the future of Apple. It was based entirely on NeXT technology that Steve brought with him, along with his new executive staff — including head of Hardware Jon Rubenstein, Phil Schiller at Marketing, and brilliant software engineers that had supervised the development of NeXTSTEP, Avie Tevanian and Bertrand Serlet.

As a result, Mac OS X combined the strength of UNIX-based NeXTSTEP, with its great features such as multi-processing and protected memory, and the legendary ease-of-use of Mac OS (..and NeXTSTEP itself).

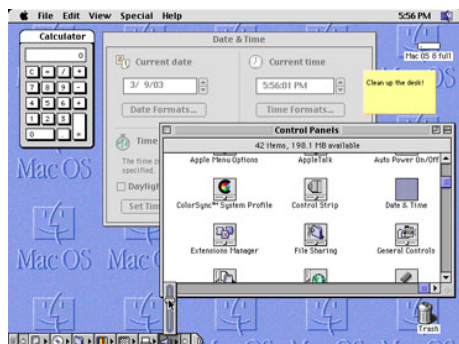
But the most striking feature of Mac OS X was perhaps its new user interface, called Aqua. Taking full advantage of the increase in computer power and the solid graphic foundations of OS X, it provided the user with a never-seen-before experience of computing. It was a beautiful interface. Pictures speak better than words for that matter:



1989: NeXTSTEP 1.0



1995: OpenSTEP, the last version of NeXTSTEP



1998: Mac OS 8



2001: Mac OS X 10.0 Cheetah

Finally, it is also in 2000 that Apple's new overall strategy really took off. Here is the idea: the 80s had been the era of productivity computing. Everyone bought a computer for using spreadsheets and databases. Then in the 90s came the era of network computing. Everyone bought a new computer for gaining access to the brand new *information highway*, the Internet. In the early 21st century, we were entering a new age of computing: that of the *digital lifestyle*.

The digital lifestyle was the convergence of new devices — the digital camera, the digital movie camcorder, the digital music player — around the one machine that would give them a purpose, the personal computer — which Apple called the digital hub. This digital-hub strategy was devised in late 1998, but at the time, nobody took it seriously. Yet the realization of this prediction in the early 2000s proved that Steve's visionary status was not an invention of the media.

However, in those days, Apple's primary mission was to build computers and develop its operating system. So the firm turned to software developers like Adobe and asked them to make software that would run on their Macs and would let people take full advantage of the emerging consumer digital devices by making the dream of the digital hub come true. To its great astonishment, most software companies refused, judging the vision was wrong and the Mac market was too small anyway.

(referring to Adobe) "They said flat-out no. We were shocked, because they had been a big supporter in the early days of the Mac. But we said 'Okay, if nobody wants to help us, we're just going to have to do this ourselves!'"

(Steve Jobs in How Big Can Apple Get?, Fortune, February 2005)

And they did: it was the birth of several great Apple-designed applications, called the iApps — which are now part of the iLife suite: *iMovie* (1999) for editing digital movies, *iDVD* (2001) for burning DVDs and share these home-made movies, *iPhoto* (2002) for organizing and sharing digital pictures, and of course *iTunes* (2001), the digital music jukebox.

The iPod revolution

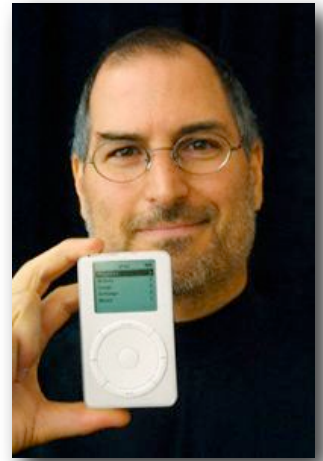
Nevertheless, in 1998, Steve did not expect the digital hub to expand around music: he thought the next big thing would be desktop video editing. He even compared it to the desktop publishing revolution. That's why the first iApp Apple released was *iMovie*, and not *iTunes*; that's also why the latest generation of iMacs were called the iMac DVs, as they came with FireWire connectivity to plug digital movie cameras in. When the Napster phenomenon erupted in 2000, Steve realized he might have been wrong this time:

"I felt like a dope. I thought we had missed it. We had to work hard to catch up."

(Steve Jobs in How Big Can Apple Get?)

To gain some time, Apple bought SoundStep, a fledging start-up that was working on a digital-jukebox project called SoundJam. His founder, Jeff Robbin, had been working for the Cupertino firm a few years earlier and was glad to have a chance to come back. He took charge of the team which released the first version of *iTunes* only four months later, at Macworld 2001.

But the biggest stroke was yet to come. Even before iTunes was released, Steve asked Robbin and his iTunes team to work on another new project, that of a portable digital music player. Apple's market analysis had shown that, unlike the markets of digital cameras and digital camcorders, the MP3-player market was a zoo, with miserable products and no clear leader. Apple felt it could seize this opportunity to enter the market in a big way with an elegant and easy-to-use device that would be the ideal companion to its own music software, iTunes.



With the original iPod



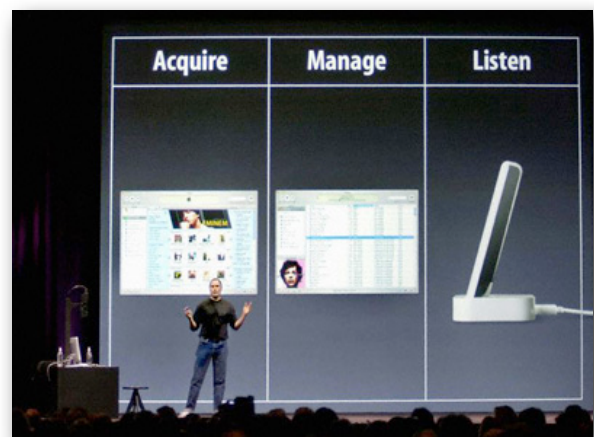
iPod creator Tony Fadell

The hurriedness to bring this new product to market was so high that, once again, Apple had to turn to outside engineers. The company hired Tony Fadell, a young engineer who had started work on such a hand-held music player. Once hired, he decided to base his new design on the work that had already been done by a small California-based design firm, PortalPlayer. Steve convinced the firm to work full-time for Apple and shut down its existing customers, which included IBM and a dozen Asian manufacturers. He was very interested in PortalPlayer's work because they already had a working operating system for their music device. It took all of the collective genius of Jonathan Ive's design team to transform this germ of a music player into the stunningly beautiful cigarette-box-sized iPod that Steve had the privilege to introduce to the world on October 23rd 2001, just in time for the holiday season.

The player, which carried "1,000 songs in your pocket" for \$399, was widely acclaimed for its breathtaking easy-to-use interface and scrolling wheel, its compactness, as well as its large hard-drive capacity (5 GB). But it remained reserved to Mac users. Not for long: in July 2002, iPod — which could then host 2,000 songs on its 10 GB hard drive — was made compatible to the *Dark Side of Computing*, the Windows world.

Everything went very fast from then on. Sales started to take off: 140,000 iPods were sold in Q3 2002. 200,000 in Q4 2002. 336,000 in Q3 2003. But it was only the beginning. In April 2003, Steve unveiled what Jon Rubenstein's iTunes & iPod Division had been working on for the past full year: the iTunes Music Store.

The iTMS was the first online music store to achieve to get the blessing of the Big Five, the five major music labels (i.e. Sony, Warner, EMI, BMG and Universal). This was partly for the same reason that Lotus had let Improv be bundled with NeXTSTEP back in 1990: given Apple's small market share in computers, the risk was quite limited. They all allowed Apple to sell songs for just \$0.99, and whole albums for \$9.99. In addition, they had trust in Apple's ability to run such an operation. Indeed, the firm already mastered the necessary technologies, thanks to its own Apple online Store and its world-famous [movie trailer download website](#).



Steve Jobs unveiling the iTunes Music Store on April 28, 2003

The iTunes Store was a great success from Day One. In eight weeks, five million songs were sold, and eight other millions were purchased in the following fifteen weeks, bringing iTunes' share of legal music downloads up to 70% — yet it was still only Mac-compatible! The labels were seduced, and they approved of the big move: on October 16th 2003, only six months after its introduction, the iTunes Music Store was open to the PC platform. Steve called the PC version of iTunes the “*best Windows app ever written*”. It instantaneously became the #1 online music store. As of December 2007, it still enjoys a 70% market share, and it sold its 3 billionth song in July 2007. European iTunes Stores opened in June 2004, and a Japanese store opened in August 2005.

Such outstanding results can of course be linked to the iPod's huge market share, which is currently around 60% of all MP3 players, with a total number of iPods sold above 110 million as of September 2007. 10 million iPods were sold in Q4 2007 alone.

Latest developments

Apple

The purpose of this website is not to go into details about Apple's latest products, so I will stop talking about them from then on. Only a few dates are worth noting:

March 24, 2001: the day Mac OS X's first public version, code-named Cheetah, became available. Although it had many flaws, they were quickly corrected in the following versions, each of which added dozens of new features to the system:

Mac OS X 10.1 *Puma* on September 25th 2001

Mac OS X 10.2 *Jaguar* on September 18th 2002

Mac OS X 10.3 *Panther* on October 24th 2003

Mac OS X 10.4 *Tiger* on April 29th 2005

Mac OS X 10.5 *Leopard* on October 26th 2007.

The evolution of the species: *Mac OS X throughout the years*



10.0 Cheetah



10.1 Puma



10.2 Jaguar



10.3 Panther



10.4 Tiger



10.5 Leopard

May 15, 2001: opening of the first Apple Retail Store. Ironically, retailing is the solution that Steve brought up in May 1985 to remedy to Apple's problems, a suggestion the board disagreed of before it sided with John Sculley. Apple's retail operations proved very successful, and as of October 2007, there are 200 Apple stores (172 in the US, 10 in the UK, 7 in Japan, 4 in Canada, one in Italy).

June 6, 2005: during his keynote speech at Apple's Worldwide Developers Conference 2005, Steve announced one of the biggest move in Apple's history: the switch from PowerPC to Intel chips (see the video in [the Movie Theater](#)). Intel was seen as the enemy when Steve returned to Apple, and he is now considered the company's savior. One of the reasons this switch was decided is that Apple's engineers simply could not put powerful but way too energy-consuming G5 processors inside its notebook computers. The transition from the PowerPC to the Intel architecture went smoothly, as Apple had secretly developed Intel-compatible versions of Mac OS X since the very beginning. The first Intel Macs were the iMac and the MacBook Pro, introduced in January 2006 at Macworld SF watch it in [the Movie Theater](#)). The transition was complete with the introduction of the Mac Pro at WWDC 2006, only eight months later!



Steve Jobs with Intel CEO Paul Otellini

October 12, 2005: after the unveiling of the 5th-generation iPods, featuring video capabilities, Steve announced the opening of the iTunes video store. From this day on, not only could you buy music videos on the online store, but also TV shows, for just \$1.99. The first TV shows available were the biggest shows in the US, *Desperate Housewives* and *Lost*, both of which were made by Disney-owned ABC. On that day, Disney's new CEO Robert Iger was welcomed on stage to talk about the deal, not failing to mention his current negotiations with Pixar (see below)...

The iTunes video store now features shows from more TV stations, including ABC, NBC, USA Networks, ESPN, MTV and The Disney Channel... Apple's expansion to the living room was complete with the introduction of a digital media receiver designed for big-screen TVs, the Apple TV.



Steve introducing the iPhone in January 2007

January 9, 2007: in accordance with rumors that had been going on for more than three years, Steve used his Macworld keynote to unveil the iPhone, a state-of-the-art mobile phone combined with a widescreen iPod and a portable full-featured Web browser. In addition to the Apple TV, the iPhone embodies Apple's new vocation as a full-blown home electronics company, which started with the iPod. In a highly symbolic move, Steve Jobs announced at the end of the keynote that the company was dropping the "computer" in Apple Computer, officially becoming "Apple Inc."

Thirty years after its foundation, it is clear that a new page of Apple's history has been turned, and the future looks bright: with market dominance in legal music downloading and MP3 players, as well as a competitive lineup of personal computers running the world's most advanced operating system, Mac OS X, and a world-famous leadership in innovation, the Cupertino firm appears stronger than ever.



Apple Inc. succeeds to Apple Computer, Inc.

Pixar

While Steve dedicated most of its energy to Apple, his “other” company, Pixar, proved even more successful in its own world. Each one of its new feature films: *Monsters Inc.* (2001), *Finding Nemo* (2003) and *The Incredibles* (2004) was a blockbuster by Hollywood's standards: *Monsters Inc.* reached over \$100 million at the domestic box office in just 9 days, and *Finding Nemo* \$70.2 million in its first weekend! Success went on with *Cars* (2006) and *Ratatouille* (2007).

The Pixar deal with Disney for five animated feature films was to end after the release of *Cars* (2006). Steve Jobs had to re-negotiate the contract. He wanted Pixar to fully own its future movies, as well as *The Incredibles* and *Cars*, plus a higher share of the movies' profits. Somehow, he wanted to rent the Disney marketing machine, but not be dependent on the Walt Disney Company.



Pixar's feature films

all about Steve - www.romain-moisescot.com/steve/

However, Disney CEO Michael Eisner disagreed upon his terms and in January 2004, after ten months of tensions and increasing frustration, the negotiations ended.

Steve's opinion about Disney was quite clear: he didn't want them to own any of Pixar's movies because it would allow them to make sequels:

"We feel sick about Disney doing sequels, because if you look at the quality of their sequels, like *The Lion King 1 1/2* and their *Peter Pan* sequels, it's pretty embarrassing."

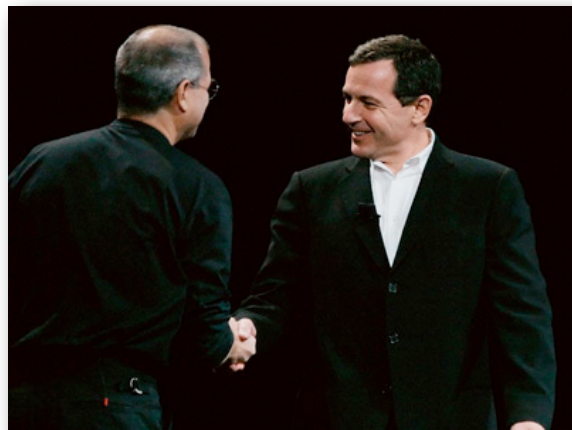
He declared Disney could no longer create great movies, it was only good at marketing them.

"The truth is that there has been little creative collaboration with Disney for years. The collaboration we do have with Disney is centered around the marketing of the films, not the making of them."

He added: "We think the Pixar brand is now the most trusted name in animation" (which is true).

As a result, the success of *The Incredibles* became extremely important to Pixar, as the movie came out at a time where the animation studio was looking for another company to distribute its work. And it was a success: it won two Academy Awards and brought in \$261.4 million from the US box office.

However, Pixar re-opened its negotiations with Disney in 2005, as The Walt Disney Company got itself a new CEO, Bob Iger. As you read above, Iger was instrumental in agreeing to sell its ABC and Disney channel TV shows on Apple's iTunes online video store. It was the official start of an appeasement in the relationship between Steve Jobs and Disney.



*Steve Jobs & Disney CEO Bob Iger
at the opening of the iTunes Online Video Store*

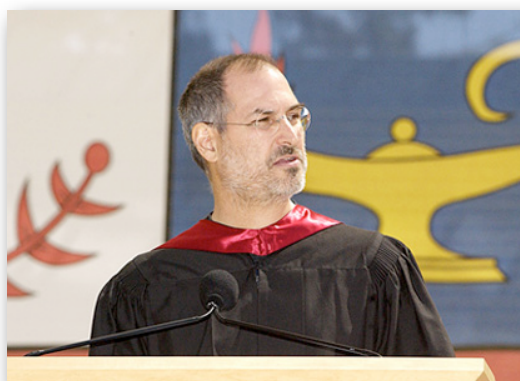
The biggest and most unexpected news was yet to be announced: on January 24th 2006, Disney announced its acquisition of the Pixar Animation Studios. The price tag was set at \$7.4 billion (or 2.3 Disney shares for every Pixar share). The Pixar honchos were assigned new roles at Disney: Ed Catmull became President of the new *Pixar & Disney Animation Studios*, John Lasseter its Chief Creative Officer as well as Principal Creative Advisor at *Walt Disney Imagineering*, and Steve himself was appointed to Disney's Board of Directors (as a non-independent member). Steve officially stated that:

"Disney and Pixar can now collaborate without the barriers that come from two different companies with two different sets of shareholders. Now, everyone can focus on what is most important, creating innovative stories, characters and films that delight millions of people around the world."
(official press release)

Personal life

One of the most difficult episode of Steve's life occurred in the midst of his busy career's turnaround. Rather than describing it, let's read what he said about it:

"About a year ago I was diagnosed with cancer. I had a scan at 7:30 in the morning, and it clearly showed a tumor on my pancreas. I didn't even know what a pancreas was. The doctors told me this was almost certainly a type of cancer that is incurable, and that I should expect to live no longer than three to six months. My doctor advised me to go home and get my affairs in order, which is doctor's code for prepare to die. It means to try to tell your kids everything you thought you'd have the next ten years to tell them in just a few months. It means to make sure everything is buttoned up so that it will be as easy as possible for your family. It means to say your goodbyes.



*Steve Jobs during the
2005 Stanford Commencement Address*

I lived with that diagnosis all day. Later that evening I had a biopsy, where they stuck an endoscope down my throat, through my stomach and into my intestines, put a needle into my pancreas and got a few cells from the tumor. I was sedated, but my wife, who was there, told me that when they viewed the cells under a microscope the doctors started crying because it turned out to be a very rare form of pancreatic cancer that is curable with surgery. I had the surgery and I'm fine now.

This was the closest I've been to facing death, and I hope its the closest I get for a few more decades."
(Stanford Commencement Address, 12 June 2005)

The news of Steve's cancer was made very public — he even released a letter to all Apple's employees on August 1, 2004, [download it here](#). It resulted in the sending of letters of compassion and kind words from the entire world, as well as raised concerns about Steve's succession as the head of Apple and Pixar.

Conclusion

After having read this long biography yet very short account of Steve's career, I hope you get the feeling what an incredible man he is and why he is worth the building of a website! An orphan raised in a modest background, his flair for business and passion for technology have allowed him to reach fame and fortune in his early 20s. Some people denied his ability to envision the future of technology and have attributed his success to mere luck, or *being at the right place at the right time*; others said it was all because of his silver tongue; yet he has proved them wrong many times over with Macintosh, Pixar, the digital hub strategy, the iPod, and now the iPhone.

His most highly criticized flaws are also his strongest assets: his drive for perfection, his refuse of compromise with products as well as employees, his undeniable business skills, his love of aesthetics. He has left an indelible mark on every one of the three companies he's founded: one has failed, the two others have become giant successes and corporate icons, but all are recognized as being at the edge of innovation in their respective fields. He has changed the worlds of computing, computer animation, music, and communications forever.

Steve has also learned from his failures and has gained maturity. Isn't it ironic that it is the *enfant terrible* of Silicon Valley — as he used to be called — who never graduated from college who was honored to pronounce the Commencement Address at Stanford at age 50? This speech has circulated all around the globe as an example of wisdom...

While many would have given up after the two successive downfalls he's endured, Steve Jobs has made his way back to the top with his characteristic intensity and force of will, and with astonishing success: in 1994, he was considered a has-been and technological outcast. In 2007, he was honored at the California Hall of Fame and Fortune named him the most influential businessman on the globe.

Is it luck? Maybe. His charisma, his *chutzpah*? It sure is. But especially the extraordinary amount of talent and genius of a man who has never ceased to impress the world, and is not willing to stop.

To be continued...