

Inside Steve's Brain

by Leander Kahney

[Fertig Notes]

- To Jobs, the act of pulling a product from its box is an important part of the user experience, and like everything else he does, it's very carefully thought out. Jobs is a control freak extraordinaire. He's also a perfectionist, an elitist and a taskmaster to employees. By most accounts, he is borderline loony.
- Clearly, he's doing something right. Jobs pulled Apple from the brink of bankruptcy, and in ten years he's made the company bigger and healthier than it's ever been. He's tripled Apple's annual sales, doubled the Mac's market share, and increased Apple's stock 1300%. Apple is making more money and shipping more computers than ever before, thanks to one giant blockbuster – the iPod.
- More than 100 million sold by April 2007, which accounts for just under half of Apple's ballooning revenues. The iPhone looks set to become another monster hit. 9 out of 10 of all music players sold is an iPod. The iTunes music store sells five million songs a day – 80% of all digital music sold online. It's the third largest music retailer in the United States, just behind Wal-Mart and Best Buy. By the time you read this, these numbers will probably have doubled.
- And then there's Pixar. Disney bought Pixar in 2006 for a whopping \$7.4 billion, making Jobs Disney's largest shareholder.
- "I was worth over a million dollars when I was 23 and over 10 million when I was 24 and over 100 million when I was 25, and it wasn't that important because I never did it for the money."
- Jobs' stated goal from the very beginning: to create easy-to-use technology for the widest possible audience
- "Apple had always reflected the best and worst of Steve's character," said Gil Amelio, the CEO that Jobs replaced. Though I have a lot to be angry about in my relationship with Steve Jobs, I recognize that much about the Apple I loved is tuned to his personality."
- Jobs runs Apple with a unique blend of uncompromising artistry and superb business chops.
- Instead of perfectionism, there's the pursuit of excellence. He's someone who has turned his personality traits into a business philosophy.
- Apple was in a death spiral. Gil Amelio, who'd been in charge for about 18 months, had failed to reignite its inventive soul. "It's time for me to go," he said, and quietly left the room. Before anyone could react, Steve Jobs entered the room. "Tell me what's wrong with this place," he said. Before anyone could reply, he burst out: "It's the products. The products SUCK! There's no sex in them anymore."
- Jobs was tiring of cranking out technology products that were quickly obsolete. He wanted to make things that were longer lasting. A good movie, for example. Good storytelling lasts for decades. "I don't think you'll be able to boot up any computer today in 20 years. But *Snow White* has sold 28 million copies, and it's a 60-year old production. Everybody watches movies."
- Don Norman: When I joined Apple, you could do creative, innovative things. But it was chaotic. You can't do that in an organization. You need a few creative people, and the rest get the work done."
- John Warnock: When Steve attacks a problem, he attacks it with a vengeance.
- Peter Hoddie: Someone started taking notes. Steve said, "You don't need to take notes. If it's important, you'll remember it." The engineers and programmers explained in detail what they were working on. Jobs listened carefully and was deeply engaged. At the end of the presentation, he would sometimes ask hypothetical questions: "If money were no object, what would you do?"
- Jobs realized that while the products sucked, the Apple brand was still great. "What are the great brands? Levi's, Coke, Disney, Nike", Jobs said. "Most people would put Apple in that category. You could spend billions of dollars building a brand not as good as Apple. Yet Apple hasn't been doing anything with this incredible asset. What is Apple, after all? Apple is about people who think outside the box, people who want to use computers to help them change the world, to help them create things that make a difference, and not just get a job done."
- Slashing the product pipeline was an extremely gutsy move. To kill everything to focus on just four machines was radical. But it was brilliant. Jobs knew that Apple was only a few short months from bankruptcy, and the only way to save the company was to focus keenly on what it did best: build easy-to-use computers for consumers and creative professionals.

- Jobs was mostly worried about failing. Apple was in dire trouble, and he might not be able to save it. He'd already earned a place in the history books; now he didn't want to wreck it. He looked to his hero Bob Dylan for inspiration. One of the things that Jobs admired about Dylan was his refusal to stand still. Many successful artists at some point in their careers atrophy: they keep doing what made them successful in the first place, but they don't evolve. "If they keep risking failure, they're still artists. Dylan and Picasso were always risking failure."
- While doing his product survey, Jobs had also been conducting a people survey. The company's assets weren't just products, they were the employees as well. And there were some gems.
- One of my mantras – focus and simplicity.
- Avoid "feature creep" – the growing list of features that is often added to new products during their design stage and after their initial release – Jobs insists on a tight focus. Many cell phones are shining examples of feature creep. They do everything under the sun, but basic functions like adjusting the volume are sometimes obscured by the devices' overwhelming complexity. "Focus means saying no." Have the confidence to say no when everyone else is saying yes.
- Over the years, Sony has sold 600 different models of the Walkman. Sony's CEO, Sir Howard Stringer lamented, "Sometimes I wish there were just three products." Sony can't release a product – any product – without multiple products at launch. Conventional wisdom holds that more choice is always a good time thing. But each variation costs the company time, energy and resources. While a giant like Sony might have the means, Apple needed to focus and limit the variations it released just to get anything out the door.
- What Jobs is good at is: 1. **Developing new products** is Job's passion. 2. **Product presentations** Steve Jobs is the public face of Apple. He spends weeks in preparation. 3. **Cutting deals** A master negotiator, he cuts deals with Disney to distribute Pixar's movies and persuaded all five major record labels to sell music through iTunes.
- What Jobs is NOT good at is: 1. **Directing movies** so he doesn't even try. 2. **Dealing with Wall Street** He has little interest. 3. **Operations** so he delegates. 4. **Staying focused**
- **Lessons from Steve:** *Get busy.* Roll up your sleeves and get to work straight away. *Face hard decisions head on. Don't get emotional. Be firm. Get informed; don't guess. Reach out for help. Focus means saying "no." Focus on what you are good at; delegate all else.*
- Jobs is extremely customer-centric. The starting point for the iPod wasn't a small hard drive or a new chip, but the user experience. The key was getting rid of stuff.
- One of the most important parts of Apple's design process is oversimplification. For Jobs, less is always more. John Sculley, Apple's CEO from 1983-1993, said, "What makes Steve's methodology different than everybody else's is that he always believed that the most important decisions you make are not the things you do, but the things you decide not to do."
- A study in The Netherlands found that nearly half of the products returned by consumers for refunds are in perfect working order, but their new owners couldn't figure out how to use them.
- Jobs can't innovate by asking a focus group what they want – they don't know what they want. Like Henry Ford once said: "If I'd asked my customers what they wanted, they'd have said a faster horse." Users can't tell you what they want. You have to watch them to discover what they want. Sony would have never invented the Walkman if it had listened to its users. The company actually conducted a lot of research before releasing it. All the marketing data said the Walkman was going to fail. But [founder Akio] Marita pushed it through anyway. He knew. Jobs is the same. He has no need for user groups because he is a user experience expert. A lot of times people don't know what they want until you show them.
- Jobs is a one-man focus group. He doesn't have a business degree. He's a college dropout. He doesn't think like an engineer. He thinks like a layman, which makes him the perfect test bed for Apple's products.
- **Lessons from Steve:** *Be a despot. Generate alternatives and pick the best. Design pixel by pixel. Simplify. Don't be afraid to start from scratch. Don't shit on your own doorstep. When it comes to ideas, anything is game. Find an easy way to present new ideas. Don't listen to your customers.*
- Be a yardstick of quality. Some people aren't used to an environment where excellence is expected.
- Jobs is a stickler for detail. But where some see picky performance, others see the pursuit of excellence.
- Romanian sculptor Constantin Brancusi: Simplicity is complexity resolved.
- Jobs paid close attention to every detail.
- There was only one switch on the Mac – the on/off switch. It was put at the back, where the user couldn't accidentally hit it and turn off the computer. Because it was hidden at the back, Jerry Mancock of Apple's design team thoughtfully put a smooth area around the switch to make it easy to find by touch. By

Mancock's estimation, it was this kind of attention to detail that elevated the Mac into an object of historical interest. "That's the kind of detail that turns an ordinary product into an artifact," he said.

- To celebrate – and to acknowledge the artistry of the entire effort – Jobs had a “signing party” – the signing of the inside of the case by key members of the team. “Artists sign their work,” he explained.
- Redesigning the motherboard to make it look pretty would not be easy. Naturally the engineers protested, saying nobody would ever see it. But Jobs persisted, “A great carpenter isn't going to use lousy wood for the back of a cabinet, even though nobody's going to see it.”
- But, as predicted, the new motherboard didn't work, and Jobs was forced to drop the idea. His insistence on excellence sometimes delays products; and he's quite willing to kill projects that his team has worked on for years. But his unwillingness to compromise ensures that Apple products are never rushed out of the door until they are polished to his satisfaction.
- Jobs lived in a mansion that was nearly empty of furniture because he couldn't stand substandard furnishings. He bought a German grand piano, even though he didn't play, because he admired its design and craftsmanship. Apple's former CEO John Sculley said Jobs was unwilling to settle for anything but the best. “I end up not buying a lot of things because I find them ridiculous.”
- It's in those early stages when you're still very open to exploration, that you find opportunities. Jobs assiduously avoids step-by-step design regime, where products are passed from one team to the next, and there's little back and forth between the departments. Products being developed at Apple aren't passed from team to team, from the designers to the engineers to the programmers and finally to the marketers. Instead, the products are worked on by all these groups simultaneously, and there's round after round of reviews. The meetings are endless. Without them there wouldn't be the same amount of “cross pollination.” “The historical way of developing products just doesn't work when you're as ambitious as we are. When the challenges are that complex, you have to develop a product in a more collaborative, integrated way.”
- Ive's team pays attention to the kind of details that other companies often overlook. One thing that is typical about our work at Apple is caring about the smallest details.
- **Lessons from Steve:** *Don't compromise. Design is function, not form. Hash it out. Include everyone. Avoid a serial process. Generate and test. Don't force it. Respect materials.*
- In our business, one person can't do everything anymore. You need to create a team of people around you.
- Steve Jobs has the reputation as the boss from hell. But throughout his career, Jobs has struck up a long string of productive partnerships – both personal and corporate. Jobs' success has greatly depended on attracting great people to do great work for him. He's always chosen great collaborators – from his Apple cofounder Steve Wozniak to the London-born design genius Jonathan, who's responsible for the iMac, iPod and other iconic designs. Jobs has successfully struck up working relationships with some of the most creative people in his field. Not only does he choose great creative partners, he also brings out the best in them. He's an elitist who believes that a small A team is far more effective than armies of engineers and designers. Jobs has always sought out the highest quality in people, products and advertising.
- It's not easy working for Jobs, but those who can whether it tend to be loyal.
- I always considered part of my job was to keep the quality level of people in the organizations I work with very high. I really try to instill in the organization the goal of only having “A” players. It really pays to go after the best people in the world.
- Randy Nelson, dean of Pixar University who funds the career develop of its employees: We've made the leap from an idea-centered business to a people-centered business. Instead of developing ideas, we develop people. Instead of investing in ideas, we invest in people.
- Pixar is an on-the-job training program that offers hundreds of courses in art, animation and filmmaking. “We're trying to create a culture of learning, filled with lifelong learners.”
- Jobs tries to find the best people in a given field and put them on the payroll. As well as recruiting the best talent, Jobs is quick to get rid of those who don't measure up. Hiring only insanely great employees and firing the bozos has been one of Jobs' longest held managerial principles.
- Delegation at Apple frees up Jobs to do what he loves best – develop new products.
- Geoffrey Moore, a venture capitalist and technology consultant: The success or failure of a startup depends on its first product. It's a hits business. Startups must have a hit or they'll fail. If you pick the right product you win big.

- You have to risk everything every time you do it. It's playing center court at Wimbledon. And you have to have a lot of power to do it. Not many have the power or the will to push it through the organization without being edited or compromised or watered down. It doesn't work if you pick by committee.
- At Apple, Jobs has successfully picked and guided to development a hit product every two or three years – the iMac, the iPod, the MacBook, the iPhone. Apple is a hit-driven company. It's had one hit after another. Many companies are run by committee. What's missing today is that these kinds of entrepreneurs are no longer there. Today there is only Apple and to a lesser extent Sony.
- Although Jobs is king of the mountain, the decision making at Apple isn't all top down. Argument and debate are central to Jobs' creative thinking. Jobs wants partners who challenge his ideas, and whose ideas can be challenged by him, often forcefully. Jobs makes decisions by engaging in hand-to-hand intellectual combat. It's demanding and pugnacious, but rigorous and creative.
- A meeting with Jobs can be a trial by fire. He'll challenge everything that is said, sometimes extremely rudely. But it's a test. He is forcing people to stick up for their ideas. If they feel strongly enough, they'll defend their positions. By raising the stakes, and people's blood pressures, he's testing to see if they know their facts and have a strong argument. The more firmly they stand, the more likely they'll fight.
- It's extremely difficult to bullshit Jobs. He has access to some of the best people on the planet. If you don't know what you're talking about, he's gonna know.
- One of Jobs' most productive working partnerships has been with Lee Clow and TBWA/Chiat/Day. When a campaign spawns hundreds of parodies on YouTube and is turned into a sketch on late night comedy shows, then the ads have graduated from the commercial to the cultural realm. The agency began work on what would become one of the most celebrated ads in advertising history: the TV commercial that introduced the Macintosh during the third quarter of the Super Bowl in January 1984. "Why 1984 won't be like '1984'" – a reference to George Orwell's novel was too good a line to just throw away. It was perfectly suited for the launch of the Mac. The ad portrayed a bleak Orwellian future, where a Big Brother squawking propaganda from a giant TV crows the masses into submission. Suddenly, in rushes an athletic woman in a Macintosh T-shirt, who smashes the screen with the toss of a sledgehammer. The sixty-second spot never showed the Mac, nor any computer, but the message was clear: the Mac would free downtrodden computer users from the hegemony of IBM. Apple's board of directors was shown the spot and freaked out, but Chiat/Day was unable to sell the slot in time and the ad ran. It garnered more attention and more press than the game itself. It was shown only twice, but was rebroadcast in countless news reports and on *Entertainment Tonight*. Apple estimated that more than 43 million people saw the ad worth millions of dollars in free advertising. It turned the Super Bowl from a football game into advertising's Super Event of the year and it ushered in the era of advertising as news.
- The "1984" ad is typical of Jobs. Bold, brash, and unlike any commercial of its time. He was smart enough to team up with Lee Clow and Jay Chiat, and give them room to be creative. No one else was thinking about advertising in the same way, especially in the computer industry; and very few companies were willing to communicate with the public in such an original, unorthodox way. Jobs left Apple in 1985 and returned in 1996. He was concerned with apple's lack of focus. Clow was behind the idea for "Think Different." He said why not celebrate anyone who's ever thought about ways they could change the world. The campaign featured black and white photos of about 40 famous iconoclasts, including Muhammed Ali, Lucille Ball and Desi Arnaz, Maria Callas, Cesar Chavez, Bob Dylan, Miles Davis, Amelia Earhart, Thomas Edison, Albert Einstein, Jim Henson, Alfred Hitchcock, John Lennon and Yoko Ono, Martin Luther King Jr., Rosa Parks, Picasso, Jackie Robinson, Jerry Seinfeld, Ted Turner and Frank Lloyd Wright. Apple ran a TV ad celebrating the "misfits, the rebels, the troublemakers...the crazy ones. The people who are crazy enough to think they can change the world are the ones who do." The "Think Different" campaign trumpeted Apple's virtues: its creativity, its uniqueness and its ambitions.
- Advertising has always been extremely important to Jobs, second only to the technology. "My dream is that every person in the world will have their own Apple computer." The importance of advertising to Jobs is clearly illustrated by his choice of CEO to run Apple in its early days: John Sculley, a marketing executive from PepsiCo who had used advertising to build Pepsi into a Fortune 500 company. During the "Cola Wars" of the '70s, Sculley massively boosted Pepsi's market share by spending huge sums of cash on savvy TV advertising. Expensive, slick campaigns like the "Pepsi Challenge" transformed Pepsi from an underdog into a soda giant on equal footing with Coca-Cola.
- Many critics have dismissed Apple's advertising flair, rejecting it as trivial and unimportant. Pure flash; no substance. But at Apple, marketing has always been one of its key strategies.

- At PepsiCo, Sculley was responsible for some of the earliest and most successful examples of lifestyle advertising – emotionally charged spots that tried to reach people’s minds through their hearts. Rather than try to market specific attributes of Pepsi over other sodas, which were negligible, Sculley created advertising that articulated an “enviable lifestyle.” The “Pepsi Generation” was designed to appeal to baby boomers – the fastest growing, wealthiest consumers in the post-World War II economy – by portraying a lifestyle they’d aspire to. They were the first “lifestyle” ads.
- Apple’s highly successful iPod ad campaign shows young people grooving to the music in their heads. There is never any mention of the iPod’s hard capacity.
- All the ads reflect a consistent message and styling. The message is simple and direct: “One thousand songs in your pocket” is all you need to know about the iPod. “You can’t be too thin. Or too powerful” sends a clear message about Apple’s MacBook laptops.
- Jobs’ Apple is obsessively secretive, as secretive as a covert government agency. Like CIA operatives, Apple employees won’t talk about what they do, even with their closest confidantes: wives, boyfriends, parents. Talking out of school is a firing offense. Many employees don’t know anything anyway. Apple staffers are given information on a strictly need-to-know basis.
- In January 2007, a judge ordered Apple to pay the \$700,000 in legal fees of two websites that reported details of an unreleased product. Apple had sued the sites in an attempt to learn the identity of the person in its ranks who leaked the information, but lost the case. Some speculated that Jobs sued the websites to keep the press in line. But from Jobs’ point of view, the case had nothing to do with press freedom. He sued the bloggers to scare the shit out of his own employees. He was less concerned with gagging the press than gagging staff who leaked to the press – and anyone who might think of doing it in the future.
- Apple’s obsessive secrecy is not a quirk of Jobs’ control-freak tendencies; it’s a key element of Apple’s extremely effective marketing machine. Jobs isn’t a control freak for the sake of it; there’s a method to his madness.
- Jobs has, through advertising, shown the public things he stands for: revolution through technology early on, then being creative later. Jobs personality allows Apple to market itself as human, and cool. Even an agency like Chiat/Day could never ever make Bill Gates look cool. Apple’s advertising has done a good job in a subtle, indirect way. Apple rarely brags. It uses the storytelling of its advertising to convey this message.
- The best way to get creative advertising is to hire the most creative agency, but the real trick is to communicate what the brand is about.
- In 2006, Hewlett-Packard started to do very good advertising, with campaigns that featured people, not computers. In one spot, the hip-hop star Jay Z shows viewers the contents of his computer, between his gesticulating hands. His face is never shown. The ads were interesting and very well done, but they never had the strength of personality of Apple’s ads, because *the company* doesn’t have the strength of personality. HP still felt like a company. Apple is more of a phenomenon than a company.
- Not everyone loves Apple’s advertising. Seth Godin, author of best-sellers about marketing said Apple’s advertising is more about pandering to the insiders than acquiring new users. If you have a Mac, you love Apple’s advertising because it says, “I’m smarter than you.” If you don’t have a Mac it says “You’re stupid.”
- The “Switchers” campaign was ripped for portraying Apple customers as losers. The campaign featured a series of ordinary people who had recently switched from Windows computers to Macs. They explained the reasons they switched but the trouble was, most seemed like they were running away from their problems. They couldn’t cope, and they had given up. Journalist Andrew Orłowski: The message is a mass of conflicting signals. Having portrayed the Mac as the computer for overachievers, it’s now suggesting that it’s a kind of refugee camp for life’s most bitter losers.
- **Lessons from Steve:** *Partner only with A players and fire the bozos. Seek out the highest quality. Invest in people. Work in small teams. Don’t listen to “yes” men. Challenge ideas. Engage in intellectual combat. Let your partners be free.*
- The iPod’s a cool MP3 player. Jobs: “We were lucky – we grew up in a generation where music was an incredibly intimate part of that generation, more than it is today, because today there are a lot of other alternatives. We didn’t have video games or personal computers. Nonetheless, music is really being reinvented in this digital age. In our own small way, that’s how *we’re working to make the world a better place.*” Get to that last part: In everything Jobs does, there’s a sense of mission. And like any true believer, he’s passionate about his work.

- He's no pussycat when dealing with underlings. Oddly, many of his collaborators like getting yelled at. They like the effect it has on their work. They appreciate his passion. He pushes them to greatness, and, though they might burn out, they learn a lot along the way. Jobs' secret: it's OK to be an asshole, as long as you're passionate about it.
- Jobs had spent months trying to seduce John Sculley, the president of PepsiCo, to run the company. Jobs challenged him: "Do you want to sell sugar water for the rest of your life, or do you want to change the world?" The question cut Sculley to the core and he fretted about it for days. "If I didn't accept it, I'd have spent the rest of my life wondering if I made the wrong decision."
- Right from the get-go, Jobs convinced the team that they were creating something revolutionary. Though Jobs screamed at them, he kept up morale by instilling in them the conviction that they had a higher calling. In retrospect, this turned out to be true. The team joked that their belief in Jobs' vision was the same kind of faith instilled by leaders of charismatic cults. Jobs instilled in his team a passion for their work, which is critical when trying to invent new technologies. Without it, workers might lose faith in a project that takes several years to come to fruition.
- Unless you have a lot of passion about this, you're not going to survive. You're going to give up. You've got to have a wrong that you have to right that you're passionate about; otherwise you're not going to have the perseverance to stick with it. That's half the battle right there.
- You usually go through a period where everybody tells you that you've completely failed. Instilling employees with a passion for what the company is doing has a very practical application: staffers are generally happy to work extremely long hours.
- Just as Jobs is exceedingly demanding of the people who report to him, middle managers demand the same level of high performance from their staff. The result is a reign of terror. Everyone is in constant fear of losing their jobs. It's known as the "hero/asshole rollercoaster."
- Despite the zeal, employees consciously avoid the cultish types. They like to describe each other as "level-headed."
- Jobs uses both the carrot and the stick to get his team to produce great work. He's uncompromising and the work has to be of the highest standard. He sometimes insists on things that are seemingly impossible, knowing that eventually, the problem is solvable. John Sculley: Steve provided phenomenal inspiration to get his team to such things. He pushed them to their limits, until even they were amazed at how much they were able to accomplish. He possessed an innate sense of knowing exactly how to extract the best from people. He cajoled them by admitting to his own vulnerabilities, he rebuked them until they, too, shared his uncompromising ethic, he stroked them with pride and praise, like an approving father.
- He insisted the team sign the inside of the Mac's case, the way that artists sign their work. When the Mac was finally finished, Jobs presented each member with his or her own machine bearing a personalized plaque. He's given all of Apple's 21,600 full-time employees a complimentary iPhone. Yet Jobs can also be extremely cutting and cruel, calling employees' work "a piece of shit" and throwing it at them in a rage.
- John Sculley: Steve would get them excited, make them feel like they were part of something insanely great. But on the other hand, he would be almost merciless in terms of rejecting their work until he felt it had reached the level of perfection that was good enough.
- Roderick Kramer, a social psychologist at Stanford: Jobs is one of the "great intimidators." They inspire people through fear and intimidation, but aren't mere bullies. They're more like stern father figures, who inspire people through fear as well as through a desire to please.
- Richard Nixon: People react to fear, not love – they don't teach that in Sunday School, but it's true.
- Like other great intimidators, Jobs is forceful. He pushes and cajoles, often quite hard. He can be brutal and ruthless. He puts the fear of God into people – to get things done. This kind of leadership is most effective in crisis situations, like company turnarounds, when someone needs to take the reins and make sweeping changes. But as Jobs has shown, it's very effective in getting products to market – quickly.
- Some of it is pure show. Jobs has chewed out underlings in public for the effect it has on the rest of the organization. Everybody at Apple is held personally accountable. Like other intimidators, Jobs can be immensely charming when he needs to be.
- Alan Deutschman: He uses your first name very often. He looks directly in your eyes with these movie-star eyes that are very hypnotic. But what really gets you is the way he talks – there's something about the rhythm of his speech and the incredible enthusiasm he conveys for whatever it is he's talking about that is just infectious. When Steve wants to be charming and seductive, no one is more charming.

- Thanks to his fearsome reputation, many staffers, even executives, try to avoid Jobs. In return, Jobs keeps a distance from rank-and-file employees, remaining aloof instills a mixture of fear and paranoia that keeps employees on their toes.
- There are also F.O.S. – Friends of Steve – persons of importance who are to be treated with respect and sometimes caution: you never know who might get reported.
- Under Jobs, Apple is a very flat organization. There are few levels of management.
- Many people who work for Jobs tend to burn out, but in hindsight they relish the experience.
- **Lessons from Steve:** *It's OK to be an asshole as long as you're passionate about it. Find a passion for your work. Use the carrot and stick to get great work. Put boot to ass to get things done. Celebrate accomplishments with unusual flair. Insist on things that are seemingly impossible. Become a great intimidator. Be a great ingratiation as well as an intimidator. Work people hard.*
- Innovation has nothing to do with how many R&D dollars you have. When Apple came up with the Mac, IBM was spending at least 100 times more on R&D. It's not about money. It's about the people you have, how you're led and how much you get it.
- Jobs pays very special attention to the customer experience. It's one of the things that has earned him a reputation for innovation.
- At Apple there is no system to harness innovation. Jobs said trying to systemize innovation is “like somebody who's not cool trying to be cool. It's painful to watch.
- Nonetheless, Jobs has an almost mystical reverence for innovation. His heroes are Henry Ford, Thomas Edison and Edward Land. John Sculley: Steve lionized Land. It was beyond his belief that Polaroid ousted Land after the only major failure in Land's career – Polarvision, an instant movie system that resulted in a near \$70 million write-off in 1979. “All he did was blow a lousy few million and they took his company away from him,” Jobs said with great disgust. Jobs and Land were sitting in this big conference room with an empty table, looking at the center of the table the whole time they were talking. Dr. Land was saying, “I could see what the Polaroid camera should be as if it were sitting in front of me – before I ever built one.” Jobs said, “Yeah, that's exactly the way I saw the Macintosh.” Both of them had the ability to – well, not invent products – but discover products. Both of them said these products existed, it's just that no one's ever seen them before.
- Business Week in 2007 named Apple the most innovative company in the world, beating Google, Toyota, Sony, Nokia and a host of other A-list companies. While Apple innovated, companies like Microsoft and Dell made the big bucks.
- Jobs used to have a reputation for reckless innovation. He was so busy turning out the next groundbreaking product that he was unable to capitalize on the last one, to follow through on what he'd built. Take the Mac and the Apple II. When the Mac came out, it was completely incompatible with the Apple II. But Jobs wasn't interested in building on the Apple II's position of strength. He was interested in the future, which was graphical computing. Bill Gates never made these kinds of mistakes. Windows was built on top of Microsoft-DOS, and Office was built on top of Windows. Every version of Windows has been completely compatible with the preceding version. It's been slow, steady progress – and money in the bank.
- In the history of business, the most successful companies aren't product innovators, but those that develop innovative business models, take the breakthroughs of others and build on them. Henry Ford didn't invent the motorcar, but he did perfect mass production. Jobs reputation as a product genius without the ability to execute is unfair. The second time around at Apple, he's proven to be a master of execution.
- *Where does the innovation come from?* Part of the process is Apple's overall corporate strategy. Part of it is keeping abreast of new technology developments and being receptive to new ideas, especially outside the company. Part of it is about being flexible, and a willingness to ditch long-held notions. And a lot of it is about shaping technology to the customer's needs, not trying to force the user to adapt to the technology.
- Now, the computer was entering its third great age: the age of digital lifestyle, which was driven by an explosion of digital devices. Jobs noted that everyone has cell phones, DVD players and digital cameras. The computer was not peripheral to this digital lifestyle, Jobs argued, but at the very center of it. He was not alone in recognizing that. Bill Gates had discussed the “digital lifestyle” the same week during his speech at the Consumer Electronics Show and Intel CEO Craig Barrett was also giving speeches noting that the computer is “really the center of the digital world.” But Jobs' articulation amounted to a mission statement for Apple.
- Part of the process at Apple is to focus on products, the end goal that guides and informs innovation. Wanton innovation is wasteful. There must be a direction, something to pull it all together. You need a

very product-oriented culture. Lots of companies have tons of great engineers and smart people. But ultimately, there needs to be some gravitational force that pulls it all together.

- Management consultancy Booz Allen Hamilton: Superior results seem to be a function of the quality of an organization's innovation process – the bets it makes and how it pursues them – rather than either the absolute or relative magnitude of its innovation spending. Apple's R&D spending is like the old distinction between pure science and applied science. Pure science is the pursuit of knowledge for its own sake. Applied science is application of science to particular problems. Pure science is extremely important, and will sometimes lead to the kind of fundamental breakthroughs that applied scientists don't even look at. But applied science, like engineering, is focused on more practical, pressing problems. The former head of Microsoft's research labs, Nathan Myhrvold, gained fame for academic papers he wrote about dinosaurs. He may have contributed to the field of paleontology, but did Microsoft invent the iPod?
- Our primary goal here is to make the world's best PCs – not to be the biggest or the richest. Apple has a second goal, which is to make money but also to keep making products.
- Jobs has a reputation as a seer. He seems to have a magical ability to peer into the future and know before anyone else what consumers want. He downplays it. "You can't really predict exactly what will happen, but you can feel the direction that we're going. Then you just stand back and get out of the way, and these things take on a life of their own."
- When it comes to innovation, Jobs is fond of quoting Picasso's famous dictum: good artists copy, great artists steal. For Jobs, innovation is about creativity, putting things together in unique ways.
- Creativity is being open and flexible, and not protecting your business model. There's got to be an element of reckless abandon, a willingness to bet the company on the next new thing.
- "At Sony, they think they are really innovative, but they are scared to do anything new," said an anonymous engineer. "A huge part of it is getting the blame. They're so terrified of making a mistake, they always go with what they've done before." After inventing the Walkman, which changed how people listened to music, the iPod should have been should have been Sony, but they didn't develop it because they were afraid of hurting their other products. Jobs, on the other hand, killed Apple's most popular iPod model – the mini – at the height of its popularity in favor of a newer, thinner model, the nano. Steve's a burn-the-boats kind of guys. If you burn the boats, you have to stand and fight.
- All of Jobs' endeavors are driven by the customers' experience.
- The store should be about the lifetime of the product, not the moment of transaction. At many stores, the purchase ends the relationship with the store. At Apple stores, we like to think that's where it begins.
- **Lessons from Steve:** *Don't lose sight of the customer. Study the market and the industry. Don't consciously think about innovation. Concentrate on products. Remember that motives make a difference. Steal. Connect. Study. Be flexible. Burn the boats. Prototype. Ask customers.*
- **Lessons from Steve:** *If you miss the boat, work hard to catch up. Seek out opportunities. Look for "vectors going in time" – bigger changes in the wider world that can be used to your advantage. Set a deadline. Don't worry where the ideas come from. Don't worry where the tech comes from – it's the combination that matters. Leverage your expertise. Trust your process. Don't be afraid of trial and error. Embrace the team.*
- I've always wanted to own and control the primary technology in everything we do.
- Jobs is a no compromise perfectionist, a quality that has led him and the companies he's founded to pursue the same unusual modus operandi: maintain tight control over hardware, software and the services they access. He's a control freak extraordinaire. He controls Apple's software, hardware and design. He controls Apple's marketing and online services. He controls every aspect of the organization's functioning, from the food the employees eat to how much they can tell their families about their work, which is pretty much nothing.
- It's only when things go wrong with your gadgets that you stop and take notice.
- Jobs' motivation is not aesthetics, but user experience.
- Devices will work well if they're designed to work well together, and it's easier to add new features if all parts of a system are developed under the same roof.
- Sir Howard Stringer, Sony's first non-Japanese CEO, reorganized the company. "There's no question that the iPod was a wake-up call for Sony. And the answer is that Steve Jobs is smarter at software than we are."
- In the 30 years since founding Apple, Jobs has remained remarkably consistent. The demand for excellence, the pursuit of great design, the instinct for marketing, the insistence on ease of use and

compatibility, all have been there from the get go. It's just that they were the right instincts at the wrong time.

- Apple came close to extinction in the late 90s as Microsoft grew to dominance. But the PC industry is changing.
- “The roots of Apple were to build computers for people, not for corporations,” Jobs told *Time*. “The world doesn't need another Dell or Compaq.”
- Jobs has stayed the same; the world is changing around him.
- Apple is looking more like a role model than an object of pity. The things Jobs cares about – design, ease of use, good advertising – are right in the sweet spot of the new computer industry.
- We didn't have a plan, so it looked like this was a tremendous deficit. But with a plan, it's Apple's core strategic advantage, if you believe that there's still room for innovation in this industry, which I do, because Apple can innovate faster than anyone else.
- Jobs was 30 years ahead of his time. “The great thing is that Apple's DNA hasn't changed. The place where Apple has been standing for the last two decades is exactly where computer technology and the consumer electronics markets are converging. So it's not like we're having to cross the river to go somewhere else; the other side of the river is coming to us.”
- It seems the very unique combination of technology, talent, business and marketing and luck to make significant change in our industry,” Jobs told *Rolling Stone* in 1994. “It hasn't happened that often.”