**Hollar**: Good evening, everyone, welcome to the Computer History Museum, I'm John Hollar, the CEO, and it's my pleasure to welcome you tonight on behalf of the trustees and our staff, our members, everybody associated with the museum, we're just absolutely delighted that you're here. I want to thank our good friends at Intel, who have sponsored the entire Revolutionary Series, Season One, as we're calling it now, and also Perforce Software, because they both have provided support for this speaker series. And in connection with revolutionaries, I'm really delighted to announce tonight, a fairly significant partnership with KQED. KQED and the Computer History Museum have now partnered to produce a 13 part series that will premier on public television in January, called, "CHM Presents Revolutionaries," and it's going to be the best of our speaker series, featuring people that you will have seen and heard, either personally here at the museum, or on our YouTube channel or on KQED FM, or on C-SPAN. By the way, KQED FM and C-SPAN are both here tonight. This is the lineup that starts January 16th, and will go for 13 weeks. Of course, Walter Isaacson, Mark Zuckerberg and David Kirkpatrick, with NPR's Guy Raz, IBM Chairman Sam Palmisano, Dreamworks Chairman, Jeffrey Katzenberg, and CTO, Ed Leonard, IBM's David Ferrucci, the inventor of Watson, Paul Allen, Jane McGonigal, the expert in gaming around the world, with NPR's Laura Sydell, Pulitzer Prize winner, Jane Smiley, journalist Steve Levy, author of, "In the Plex," which is essentially the biography of Google. David Hartley of the British Computing Society, and a protégé of Sir Maurice Wilkes, Mark Bowden, author of, "Black Hawk Down," who is here with T. J. Campana of Microsoft, talking about his new book, "Worm," the world's -- sorry, the first digital world war, with John Markoff, venture capital legend, Bill Draper, along with KQED's David Iverson, and Eric Horvitz of Microsoft, and Peter Norvig of Google, probably two of the leading AI experts in the world, talking with KQED's Tim Olson. This is quite a lineup. We feel very, very privileged to have had every single one of these people on our stage in the last 12 months, and we are looking forward to kicking off Season Two in January, so keep an eye on your mailbox, you e-mail, and museum newsletter, because we'll be talking more about the lecture series to come. Now onto our program. It was January 15th, 2008, Steve Jobs was on stage in San Francisco, making one of his legendary presentations. The Kindle E-Reader comes up, and Jobs said, "This will go nowhere," being uncharacteristically blunt. He said it would go nowhere, because, "Americans have stopped reading. It doesn't matter how good or bad the product is, the fact is that people don't read anymore. Forty percent of the people in the United States read one book or less last year. The whole concept is totally flawed." Well if it's true that people only are reading one book this year, we know which book it is. Despite its late arrival on October 28th, shortly after Steve's tragic death, it went immediately to number one on Amazon, nearly a month before its release, and ever since then, it has dominated every best seller list in many parts of the world. Walter Isaacson, has been at this for a while, he is not only, of course, a distinguished journalist, former chairman of CNN, former managing editor of Time Inc, now the president and CEO of the Aspen Institute, but next year will mark the 20th anniversary of his first major biography, that of Henry Kissinger. To that, of course, he's added, the biographies of Benjamin Franklin, Albert Einstein, and now, of course, this book on Steve Jobs. Walter and I talked a few days ago about opening this evening with something special and featuring items from our landmark collection, which you can see here on stage. Walter is going to introduce them. Aren't they neatly dressed in their black turtlenecks? Don't they look good? They have sneakers on underneath the podium here. And we have about 3,000 items in our collection from Apple. It's one of the largest collections of its kind in the world, dealing with Apple, but after Steve died, when we were looking through

  

the collection to find out really, what was the best of the best, we discovered something very amazing. It was a videotape that Regis McKenna had made in 1980, of a 25 year old Steve Jobs, making a 22 minute presentation at Stanford on the roots of Apple, and his vision for the company. We have digitized that, and we've put it on our website, at computerhistory.org. It's never been seen before, and we're going to play you about two minutes of it tonight.

**Steve Jobs:** We had absolutely no idea what people were going to do with these things when we started out. Matter of fact, the two people it was designed for, was Woz and myself, because we couldn't afford to buy a computer kit on the market. So we liberated some parts from Hewlett Packard and Atari, and worked on the design for about six months, and decided that we would build our own computer. So we built one, and Woz was up till four in the morning for many moons, and we got it working, we showed some of our friends. Immediately everybody wanted one. And it turned out that it took about 40 hours to build one of these things, and about another 20, 30, 40, to debug it. And we had a lot of friends that worked at similar companies who could liberate the parts also, and-- we found ourselves spending every spare moment of our time helping our friends to build computers. And it was just getting to be a tremendous drain on our lives. So we got the idea one day, that we could make a printed circuit board without the parts in it, and sell these blank printed circuit boards to our friends, and probably cut the assembly and debug time down to, you know, five, ten hours. So Woz sold his HP 60 calculator, and I sold my van, and we got 1,300 bucks together, and we paid a friend of ours, who was this PC board layout person, 1,300 bucks to do us a layout, and decided we'd sell printed circuit boards at twice what it cost to build them, and hopefully recoup our calculator and transportation at some later date. SO that's what we did. And I was out trying to peddle PC boards one day, and walked into a Byte Shop. The first Byte Shop in Mountain View, and Paul Terrell, the then owner of The Byte Shop, said, he would like to take 50 of these computers. And I saw dollar signs in front of my eyes, and-- but he had one catch, which was that he wanted them fully assembled and tested, ready to go, which is a new twist. So we spent the next five days on the phone to distributors and convinced the electronic parts distributors around here to give us about 10,000 dollars worth of parts on thin air, just on enthusiasm, so we got the parts, and we built 100 computers, and we sold 50 of them for cash, and in 29 days, paid off the distributors, and that's how we got started.

**Hollar**: Ladies and gentlemen, please join me in welcoming Walter Isaacson.

**Isaacson**: How great it is to be here at the Computer History Museum.

**Hollar**: Thank you, well we're delighted.

**Isaacson**: Wonderful, wonderful place. Can I give a shout out to Steve Wozniak, who I just saw, and his wife Joyce? Woz, stand up.

  

**Hollar**: Absolutely. Andy Hertzfeld next to him, I think, and all the history is here. Totally intimidating me, because I'll keep looking over, and they'll be going, nodding or shaking their head. No, no, no, it wasn't that way exactly, but so if I look over there, that's for my cues.

**Hollar**: This is a silicon valley crowd, Walter, they won't be that polite.

**Isaacson**: Oh dear.

**Hollar**: Well we're so happy to have you here, thank you.

**Isaacson**: Thank you for having me. Appreciate it.

**Hollar**: Let me ask you about your very, very first meeting with Steve Jobs, 1984. You describe yourself as a junior editor at "Time." He comes to New York to demonstrate the Macintosh. How did that go?

**Isaacson**: You see both sides of Steve. You know, that absolutely passionate side, because there he is with the original Mac, that thing sitting there, almost looks like it's smiling at you. He makes sure that the strip up there, he shows us how thin it is, so it looks like a friendly face, not a Neanderthal face, and he shows us all the graphical icons, and you can tell he's passionate about every pixel. He's also furious at "Time Magazine," tells us that we're not nearly as good as "Newsweek," that somebody, I won't name his name, because he lives here, had written a horrible story about him, and so I saw the petulant side, and that's when I first started to realize that the, sort of impatient and petulism that you sometimes saw in Steve Jobs, was connected to the passion and the perfectionism.

**Hollar**: You were meeting incredible people. You have met incredible people during your career. Was there something special about that encounter? Did he make a particular impression on you at that moment?

**Isaacson**: I must admit, I was mesmerized by him. He's a very compelling-- of course, I mean, you saw it there. That's what he was then. And he's telling you these stories. He was up for-- he was mad, because he had not been made Man of the Year for the end of 1982. I, of course, had been an idiot on the wrong side of that, and I'd voted for Paul Volker. None of you remember who Paul Volker was. But we had done, The Machine Moves In, it was sort of machine of the year. And so, but you could tell the first time you met Steve Jobs that there was something compelling about him.

**Hollar**: So flash forward 20 years, it's 2004, and he gets in touch with you.

  

**Isaacson**: Yeah, gives me a call and I had just joined the Aspen Institute, we talked a little while. I said, "Do you want to come speak at Aspen?" He said, "No, but I want to come take a walk with you." And after a while, he says, "Why don't you do a biography of me?" He sort of suggests it. I had done Ben Franklin, was just finishing Albert Einstein, so I thought, Okay, you know, Franklin, Einstein, Steve, it's a good progression.

**Hollar**: I'm sure that was on his mind.

**Isaacson**: But I admit, I said, "You know, you're a really, really great subject, but let's wait 30 years until you retire." And it wasn't until 2009 when he had his liver transplant, went on that medical leave, that it sort of sunk in that he was fighting cancer, that he had transformed, with his team, a wide variety of industries, you know, first home computing and personal computing, but by that point, by 2009, had transformed the music industry, with iTunes and the iPod, the way we listen to music, the phone industry, the publishing industry, tablet computing. So that's when I said, all right, you know, this is too good to pass up.

**Hollar**: Did you have a theory about him going into this?

**Isaacson**: I had a theory because his very first phone call, when we started talking about it, he told me something that Edwin Land had said to him, which is that you always want to stand at the intersection of liberal arts and the sciences, you know, right there between the humanities and the-- the humanities and technology, or engineering, and that's something we kind of lost in the C. P. Snow era, where you either were in the humanities, or you were in the sciences. And my theory, among others, was that connecting creativity to wonderful feats of engineering, was what made him so magical.

**Hollar**: You wrote something in the book, a quote, "His passion for perfection led him to indulge his instinct to control." So I want to talk to you about the editorial control question, because you must have had to raise that and settle it fairly early on. How did you manage to do that?

**Isaacson**: I was stunned, because it never really came up. And then, after a while, he kept saying, "Well it's your book, it's your book, I'm not even going to read it." He did say, by the way, people don't read books, you know, so I don't-- you know, but it's yours. And by the way, I want it to be honest. I want you to interview, you know, people who didn't like me, as well as people who did. And he said, you know, that he was brutally honest his whole life, he said he did not want it to feel like an in-house book, he wanted it to feel like an independent book, and therefore, he was going to exercise no editorial control.

**Hollar**: Did that ever change? Did he ever call you up and say, you know--

  

**Isaacson**: Well the one time he did, which fits into his theory of, people don't read books, but they look at them, is Simon and Shuster, about a year ago, put into the catalogue, sort of a cover design, just-- it was a place holder. And it was a cover of Steve, and then Apple, you know, with, "I Steve," as the title. I landed in San Francisco airport, coming to a product launch that he was going to do. I can't remember which one, but maybe the iPad, and I saw the thing you least like to see on your iPhone, which is six or seven missed calls from Steve Jobs. So you all know the San Francisco airport, I'm standing there right in the concourse, I hit return, and he just starts yelling at me. He said, "You have no taste," you know, it's-- and, "The title is gimmicky, and it's just ugly, and I don't even want you to come to the demonstration." I'm holding the phone, you know, and finally he says, "I'm not going to continue to cooperate unless you allow me to have input into the cover art." Now it took me somewhere between a second and a second and a half to say, "Sure." You know, here's the greatest design eye, you know, for something like that, and he spent a lot of time just trying to make it a very simple, clean cover and so that was the one time I felt his wrath, and also the one time when he had editorial input.

**Hollar**: You know, you talk a lot about-- and you quote his friends, who coined the term, reality distortion field.

**Isaacson**: Yeah.

**Hollar**: Did you find yourself getting sucked into that from time to time, as you started working with him?

**Isaacson**: Well I think you'd be the last to know. Reality distortion field, and Andy [ph?] writes about it, and told me about it in, "Revolution in the Valley," but it was, you know, the engineers there, it comes from a, "Star Trek" series, which is simply by thinking something, and being convinced of something, even if it's impossible, you know, you can convince other people. And then the secret of the reality distortion field is that it sometimes works, that you convince people they can do the impossible. Woz talked about that to me, and in his own book, about, you know, Steve saying, "You'll have to do this in four days," I think it was one of the Atari games they were doing, and Woz said, "It can't be done." And Steve said, "You can do it." And that was the reality distortion field, and four days later it had been done. So the question of whether I got sucked into it, I found myself deeply emotionally vested with him. I tried very hard to be honest in the book, to put all things and all sides in the book, but there were probably-- I mean, this will be people in this audience, they will know more than most. If you read the book, and say, boy, this guy got caught in the reality distortion field, I guess the answer would be yes.

**Hollar**: So one final question about the process of writing the book, and then we'll move on to sort of the substance of Steve.

**Isaacson**: Whatever you want.

  

**Hollar**: You had the luxury of a kind of long historical detachment from Einstein, from Benjamin Franklin, not so much with Kissinger, but here you are, suddenly writing a biography of a very compelling living person, up close and personal with him in 40 interviews. How does a biographer maintain that kind of necessary detachment, that you can enjoy just by not being able to spend time with Einstein or Franklin?

**Isaacson**: Well a couple of things. You know, when Steve did his Stanford speech, he said, "Let me tell you three stories, that's it, just three stories." You become a storyteller. You don't try to preach, and I just tried to let the stories tell themselves. One of the things I discovered, by having so much time with him, and so much time with 150 other people who worked with him, was how much more we know, or I could know about him than I did about Benjamin Franklin or Einstein. And we think, you know, Benjamin Franklin wrote a lot of letter, 40 volumes of papers. Einstein, they're still compiling his papers, so we should know more, but like the flying the kite in the rain. You know, we've got one little journal entry, where there's maybe a newspaper clip, but with Steve, everything that happened, I'd hear about it at great length, and then hear other people's versions of it, and I probably ended up knowing 100, maybe 1,000 times more about him and each story in the book than you would doing somebody who you're doing it through letters or journals.

**Hollar**: Okay. Let's talk about the storytelling now, and the place I'd like to begin is his partnership with Wozniak in the very early days.

**Isaacson**: It starts with that thing right there. The Blue Box. Well it starts at Atari, actually, doing games, where Steve is on the night shift, because it's-- they find it easier to work with him if he's on the night shift. And he learns a lot at Atari, including the notion of how to juice up chips, and make them do amazing things, and also simplicity. I mean, you have to remember that games like Pong and Breakout, and Star Trek, they had to be so simple that a stoned freshman could figure them out, you know, so there's-- the instructions were, insert quarter, avoid Klingons, or something. And so that simplicity got embedded in him. Then at one point, you have one of the few copies at the Computer History Museum, of the Blue Box, which was started, I think, when "Esquire Magazine," wrote about Captain Crunch, and the phone phreakers who could replicate the Bell system's tones and thus make free phone calls. And so Woz and Steve Jobs said, we've got to do this. Went to SLAC, the Stanford linear accelerator, you know, library there, found the Bell system manuals, and made an analogue version of that, that didn't quite work. Woz goes off to Berkeley, but in his first semester there, is able to make the first digital version of it, and it-- there-- you see the partnership, and I unfortunately can't see Woz, whether he's shaking his head or not, but Woz comes up with this amazing circuit board, but of course, loves to show it off. Steve says, "We can package it, and we can sell it, and make money." So they start going door to door in rooms in Berkeley, selling this thing. At one point, testing it out by, I think, calling the Vatican, and Woz pretended to be Henry Kissinger, saying that he was at a summit meeting, and needed to speak to the Pope. I can see Woz is nodding at this one. As far as I can tell, they never really got the Pope on the phone, and the entire College of Cardinals was smart enough, eventually, to figure out it was not Henry Kissinger calling, but you know, they showed the thing off, and Steve told me, when he described that story and the whole Blue Box story, that if it hadn't been for the Blue Box, it wouldn't have been Apple.

  

**Hollar**: That's pretty profound. And why did he feel that way? What was the thing that they could do together, that made Apple happen?

**Isaacson**: They're very complementary, meaning they complemented each other well. I mean, he would say of Woz, that he could, 50 times better than any engineer could have meetings in his head and design great circuit boards. Woz had been taught by, you know, his father, being an engineer is the highest calling, so he never thought about, maybe we should put it in a package, maybe we should get great cases, maybe we should get the good power supply, integrate it, and maybe we can sell it at twice or three times the cost of our materials, and so what Steve did was, as he did his whole life, take really great ideas and come up with a great vision, and pull it all together, to do something amazing, and I think that was a perfect partnership for somebody who was, you know, could design a circuit board with one quarter of the number of chips that any other engineer would take to make it work.

**Hollar**: And we were talking earlier, too, about the process of invention is not a singular endeavor, it's not the one person sitting in a room finding out that a-ha moment.

**Isaacson**: We were talking about the Jane Smiley book, to be honest, yeah.

**Hollar**: Yeah. It really is about-- it's about that collaboration. Have you-- when you think of Einstein, for example, was there a relationship, have you found through history, and as a journalist that these kinds of relationships occur over and over, you find Wozniak and Jobs, you find other people who--

**Isaacson**: No, not always. With Einstein, it was a true solo act, especially the greatest of-- most elegant of theories of the 20th Century, general relativity, he's pacing alone in his apartment in Berlin, for months on end, and unlike most other physicists at the time, Max Planck, Niels Bohr, he didn't form a school, and wasn't collaborative. Steve, even though he was sometimes tough on people, truly created teams like the original Macintosh team, of which Andy was a part, that were bonded together as if they were pirates in a pirate band and Steve was able, with his both inspiring way, and demanding way, to create collaborative teams. And he's done that his whole-- he did that his whole life, I mean, even now, for the past eight or nine years at Apple, you've had an intensely loyal great collaborative team.

**Hollar**: So Apple gets up and running.

**Isaacson**: They start with, just so I can give a shout out to every one of your wonderful products.

**Hollar**: Yes, we have all our friends here.

  

**Isaacson**: Yeah, the Apple I, showing that-- that was what you heard on the tape, where they go purvey it to Paul Terrell at The Byte Shop. It gets up and running when they create that circuit-- when Woz creates a circuit board, and then they put it all together, Steve decides they have to incorporate. In fact, they sold today at Sotheby's for one point some odd million.

**Hollar**: I see that, 1.6 million dollars.

**Isaacson**: Yeah, the-- when Ron Wayne, Steve Jobs and Wozniak signed, when they put together Apple, the way Steve tells me the story, he had worked on the All One Farm, a commune run by people at Reed College, where they had all dropped out of Reed, gone to this apple farm. He was there, tending to the Gravenstein apples, and he'd come back from the apple farm, and says, okay, we're going to create a company, and they, you know, gets all excited that, you know, not only are we going to make a product, we'll have our own company. And they couldn't figure out what to name it, and they have all sorts of Executrex, and Matrix, and Personal Computers Inc, but Steve says, "What about just Apple, Apple Computer?" Counterintuitive, makes your head snap a bit, but kind of friendly, has a whiff of the counterculture, but is also as American as pie, and I think, says, if we can't think of a better name within a day, we'll register it as Apple Computer, and then he said, and by the way, it will get us in front of Atari in the phone book.

**Hollar**: Important marketing angle. So they begin to work on the Apple I, Apple is growing, they're putting together this team early in-- the early history of the post incorporation period, but there's another ingredient that has to come along to make it work, right, Mike Markkula comes onto the scene.

**Isaacson:** Yeah, well, first of all, you need money.

**Hollar**: Right.

**Isaacson**: Because what they're doing is going from the Apple I, to the Apple II. If you notice, among the differences, you know, Gerry Manik [ph?] and others, create-- I mean, it wasn't Manik, but, you know, create a beautiful case, they needed the plastic molding, it's going to cost a lot of money to do it, you can't just sell your VW bus and your HP calculator the way they did to get the money for the Apple I. So they need investment capital, and Mike Markkula comes along, signs a line of credit, but also gives them a great piece-- or gives Steve a great piece of advice, which is a marketing document with three concepts on it. One is to focus, really, you know, keep your focus. The other is empathy, not the perfect word for it, but it's basically, make an emotional connection with the people who are going to buy your products, and then the third is also not a great word. The word is impute, but it means cast an aura around whatever you do, so that the minute you-- you know, Steve, even throughout his career, had his own personal name on the patents for the boxes, the packaging of the Apple products, so when you opened up, and

  

there was that iPod cradle, it imputed that it was something really cool, just the way it was, and that's what the Apple II does, it imputes that it's a really cool machine.

**Hollar**: And even as primitive as it looks to us today, he obsessed with the curve of the corners on the edges, and--

**Isaacson**: The chamfers, and all the design elements.

**Hollar**: The color of plastic.

**Isaacson**: You know, he had been fascinated by the Sony style, in the very-- right when they moved out of the garage, they were in sort of a little office, and next door is a Sony showroom, and he would fondle the brochures. Then he went to Aspen Design Conference, he got invited and really, having grown up in a Joseph Eichler house, and I know Joseph Eichler's grandson is here selling the books with Kepler, [ph?] but those Eichler homes were sort of mass marketed, simple Frank Lloyd Wright style homes for the everyman. But it was simplicity, and it was that Bauhaus style of, make it simple, but the simplicity is the ultimate sophistication. And so clean, white, simple, that becomes the style for Apple.

**Hollar**: It's about this time, as Apple grows as a company, the Apple II takes off, they're selling hundreds of thousands of units. The phrase in the book surfaces, temperamental and bratty.

**Isaacson**: Yeah.

**Hollar**: And it seems, at this point, there's an almost-- there's a kind of breakout, a very particular kind of breakout at this point, where that side of Jobs, that sort of, very petulant, I think is the word you use a lot, temperamental and bratty as hell, other people described it, and it starts to grate on people, right? I think you write--

**Isaacson**: Well he was temperamental, I mean, that's why he was on the night shift at Atari. This wasn't something new, but you know, temperamental people also have the temperament of an artist, which is why you have a passion to have end to end control of a product, and make it perfect. That temperamentalness, you know, there was, you know, there was an original president, Mike Scott. Scotty sort of tried to temper Jobs, and it didn't work too well. Eventually they bring in John Sculley, who's a very polite gentleman, to try to, you know, handle Steve. But with Steve, you got the whole package. The temperamentalness was a part of it, and it showed just in how he cared, even, you know, I tell the story in the book, with Steve walking me by his house that he grew up in, the house when he was very young, and his dad, he built a fence with his dad, and he showed me the fence, and we touched it. And he said, my dad taught me to make the back of the fence as beautiful as the front, and I asked my dad, why,

  

nobody will ever see it, nobody will ever know, and my dad said, "But you will know." And that's why even on the Apple II, he wants a circuit board to be beautiful. And when they get to the Macintosh, the next one over, even though you cannot open it, he holds it up for a while, because the chips on the circuit board are not neatly aligned, and when they say, "But nobody can open it, nobody will know," he says to the Mac designers, "But you will know." And the other thing that's interesting, talking about Steve Wozniak, Steve Jobs and those two things, is Steve Jobs had the passion of an artist to have end to end control, hardware integrated with software, don't open it up. Woz's view was much more open, that we could license out the software, but on the Apple II, I think it had eight slots. You know, you could jack into it, you could put stuff into it. You could open it up, you could get to the circuit board and Steve was against-- Steve Jobs was against having slots. He wanted, as an artist would, you know, you wouldn't want Bob Dylan saying, let's have an open source on my lyrics, you know, everybody can put the words they want. He didn't like people jacking and opening up. Woz kind of insists that he wants the Apple II to have these jacks, the slots, but the Macintosh doesn't, and the Macintosh doesn't even have screws that you can use to open it up, and that was very Steve Jobs-like. All the way through his career, really believing in tightly controlling, like the gardens of Kyoto that he loved to visit, carefully curated, carefully walled, carefully tended by one artist's sensibility.

**Hollar**: So let's move now to the Macintosh era. So much is going on at Apple at that point, there's so much growth, and his personal courtship of John Sculley begins. Can you talk a little bit about that on again, off again relationship.

**Isaacson**: It was a bad mistake. I mean, it was almost like he saw John Sculley a bit as a father figure, or a mentor. Sculley really wanted to be cool and hip and wanted Steve's approval, and it was, for a while, you know, the famous line, I think it's at the San Remo apartment that Steve is thinking of buying, and he brings John Sculley up in New York, and they're looking over Central Park, and Sculley's demurring, and Steve says, "Do you want to spend the rest of your life," because Sculley was at Pepsi, "Selling sugar water, or do you want to change the world?" And so Sculley comes and Sculley is a man of prep school sensibilities, great manners, very kind, but he's hard-- it's hard for him to deal with conflict. Steve felt the price-- I mean, I'd say, why were you so tough? He said, "Well the price of admission to being with me is that I've got to be able to tell you you're full of it," actually, he used a word with two more letters than, it. And you've got to be able to tell me I'm full of it, and we're going to really duke it out. And Sculley was not that way. Secondly, Sculley was basically a marketer. You know, and having run Pepsi US, he didn't sit there worrying about the product. He was not fiddling with the formula for Doritos and saying, I can make this insanely great, this Dorito. It was shelf space, marketing, and I think Steve, after a while, felt that Sculley just didn't get into how awesome the Mac was. And then it didn't help that the Mac, even though it was insanely great, Sculley priced it at almost 2,500 bucks. It did not sell very well. Microsoft started licensing out its copied version of the graphical user interface, and started dominating the computer business and so I think their relationship was doing fine as long as Apple was doing fine, and the Apple II was a workhorse, it was making the money for the company, but the Mac didn't, and so there was a horrible falling out that culminates on Memorial Day of 1985.

  

**Hollar**: Before we talk a little bit more about the falling out, and the post '85 period, let's talk about the invention of the Macintosh itself, the design itself, and this is a point in the book where you insert the great famous quote from Jobs, "Good artists copy, great artists steal," which he took from Picasso, and then he would add, "And we have always been shameless about stealing great ideas." That quote is often associated with the genesis of the Macintosh, because of Xerox Park, and the graphical interface. What--

**Isaacson**: So they take two visits to visit-- to Xerox Park, and as you know, Xerox had come up with a concept of the desktop metaphor, the graphical interface, more importantly, sort of a bitmap design, meaning each pixel on that screen could be mapped to bits in the microprocessor. And so you could make a beautiful machine. You and I are old enough to remember, and certainly if you're not, you can go into this museum here, to remember when you have to do, you know, those green phosphor letters, you know, C prompts with C, colon, backslash, whatever command, you know, it was God awful, and suddenly, at "Time Magazine," we get the Mac, and you can click, and the document appears, you know, you can drag and drop. So I do a whole big section on both the visits to Xerox Park, and I think the misconception that they just took the graphical interface from Xerox Park, because it takes two years of the most amazing designers, including Andy and others on the team to take what it-- the metaphor that Xerox used, and to really make it great. You have to remember, Xerox came out with the Star two years before the Mac came out. I think it sold, like, seven copies in all of America. I mean, it was a kludgy bad machine. What they did when they took that metaphor, was say, oh, well take the mouse with three buttons and totally simplify it, and you'll be able to click and drag and drop and double click and open things up. We'll invent pull down menus and Bill Atkinson, invents clipping, where you can have documents sort of looking like they're on top of other documents, or it looks like a messy desktop, where you can do things. So none of that was in the Xerox original graphical interface, so I think first of all, they take the Xerox metaphor and actually make it insanely great. Secondly, T. S. Eliot's line, you know, "There falls the shadow between the conception and the reality." Well, they were able to execute on it, which Xerox and others weren't. But it is true that part of Steve's genius was looking at 1,000 ideas at any given point, and saying, that one is great, this one sucks, and this, we're going to ignore, but pulling together ideas, including ideas from Xerox Park.

**Hollar**: And this was one of the times where he's pushing this team incredibly hard. I mean, it seems to me--

**Isaacson**: The reality distortion field is then coined by--

**Hollar**: At that point.

**Isaacson**: I mean, at one point, one of the engineers, I think Larry Kenyon is his name, he's in charge of the boot up of the machine, and Steve says, it's taking too long to boot up. You've got to shave ten seconds off the boot up time. Reality distortion field. The guy says, you can't. It's actually a really elegant piece of code, it can't-- I can't shave ten-- and Steve says, "If you could save a human life, would you

shave ten second off?" And Kenyon goes, "Well yeah." So Steve goes to a piece of white board or whatever, and says, all right, say there are a million Macintoshes and say it's ten seconds every time somebody boots up, and in a given year it's done this number of times, and he multiplies it out, and says, you can save this number of lives every year, if you shave off ten seconds. An example of the reality distortion field working? Within four weeks, Larry Kenyon shaved off 28 seconds. Everything about that, you know, you see the screen, it's a rounded rectangle. I think it's Bill Atkinson-- I'll get corrected if I get some of the names wrong, but I think it's Atkinson-- or who's doing what's called the primitives that you can easily put on the screen. So he does a square, which is easy, and a rectangle, and then he does a circle, which is hard, because the microprocessor doesn't do square roots, but he figures out a way to do a circle, and Steve says, yeah, but you need, not only a rectangle and a circle, but a rectangle with rounded edges. The guy says, "Well no, that can't be done, and why do we need it?" And Steve makes him walk around the parking lot and the neighborhood, pointing to things like windshields, and billboards and, you know, No Parking signs, and screens of computers, saying, "Rounded rectangles are what people see every day, they're more beautiful to look at. Atkinson, or whoever, came up with a primitive to do a rounded rec, and even those thin pin stripes on the pull down menus, Steve fretted over them. Even the Susan Kare, doing the fonts, I mean, you know, Steve was there, because he had taken that calligraphy course when he dropped out of Reed, caring about the spacing on each one of those fonts.

**Hollar**: The perfection that he was seeking at that point, and the almost impossible tasks, because he was asking people to perform, engendered in the book, as you report it, two completely different camps, it seems to me, of people who worked for Jobs at that point. There were the people who, like, Bud Tribble, who says he'd push you, you'd be better for it, and then--

**Isaacson**: Right, Bud was one of the great engineers on the team.

**Hollar**: And then there are others who say, worst experience of my life. If you balance, not only in this case, but in other cases, too, the number of people you encountered who felt one way, tremendous affection and the number of people who felt another way, what-- would you say that there's a--

**Isaacson**: Well there are actually three categories, because a lot of people felt both, you know, that it was a really agonizing experience, and the best experience, but especially with the Macintosh team, or even with the team today. The overwhelming number say he pushed me to do things I never thought I could do. He drove me nuts at times, it was the greatest experience of my life.

**Hollar**: So it premiers, it's a great commercial, the legendary commercial. Talk a little bit about his view of the creation of that, the 1984 commercial.

**Isaacson**: Well, the 1984 ad is interesting, because in Steve Jobs' soul, you do have the heart or soul of a member of the counterculture, a rebel, a misfit, in fact, even the, Think Different ads start with, "Here's

  

to the rebels, the misfits, those who think different." The 1984 ad is, I think, an incredible cultural landmark and icon. Obviously because of the Orwell novel, we had been thinking, up until then, of computers as being centralizing and controlling and the province of the Pentagon and the power structure, and big corporations. The notion that a computer could be personal and empowering to the individual had grown up a bit in opposition to that, sort of the Stewart Brand, Whole Earth Catalogue view of computers for the people. And Steve was in that mentality. He also liked to think of himself as part of the hacker ethos. Now the problem with him thinking of himself as a hacker ethos is, as I said, he doesn't want slots, he doesn't want it to be open, he doesn't want you to be able to hack in, so in some ways he's violated the hacker ethos by creating an appliance that you can't open up, as opposed to, hey, put your own software in here and plug things in. But he wants to assert that I'm still part of that hacker ethos, fighting the establishment, and that's that amazing ad, Ridley Scott, who had just done, "Blade Runner," films it in London, and it's, you know, the woman being chased by the thought police and all the droids are there, and Big Brother's on the screen droning, and she finally throws the hammer in it, decimates Big Brother, and then says, you know, "Apple will introduce Macintosh, find out why 1984 won't be like 1984." So they show it at a board meeting and all the board members are like this at the end. I think it was Phil Schlein of Macy's California, who finally says, "Who makes a motion that we find a new ad agency?" Sculley is so frightened of it, he decides he's going to order them to sell back the advertising time on the Super Bowl, and not run the ad. Steve is furious, and at one point, shows the ad to Woz, and Woz says, "Why don't we just chip in and pay for the ad?" They don't really-- you know, on the Super Bowl. They don't really need to, because Lee Clow, and the wonderful people who are, what becomes Giant Day, [ph?] or it changes its name every few years, who made the ad, Lee Clow, a beach bum of a brilliant genius who had helped do the ad, and been a guru of advertising at Apple ever since, sort of says, we can't sell the time back, they just sort of defy and just somehow don't sell the time back. So the ad runs, runs really only once, or once nationally, but it becomes, by many estimates, including, "TV Guide," and, "Advertising Age," the best advertisement of all time.

**John Hollar:** It doesn’t sell well.

<applause>

**Walter Isaacson:** Yeah! We should show it. Do you have it here?

**John Hollar:** We can’t get the rights to show it, unfortunately.

**Walter Isaacson:** It’s on YouTube.

**John Hollar:** I know, and it shouldn’t be on YouTube, but it is anyway.

**Walter Isaacson:** I won’t go there.

**John Hollar:** We can play it on YouTube. John, why don't you try to bring that up? So, wonderful commercial, great premiere, doesn't sell well. Steve's removed from running the Macintosh division. That begins the end. Right.

**Walter Isaacson:** Correct.

**John Hollar:** For him, his relationship with Sculley. There's a massive blowup at the end, and in fact, you go in the book day by day.

**Walter Isaacson:** "Seven Days In May". Boy.

**John Hollar:** That fateful week in May when you...

**Walter Isaacson:** He's talking to everybody there, and Steve twice during that week tries to countercoup. Brings people up to his house in Woodside. They all sort of plot, but they know that Steve probably should not take over the company. And it's one of the great learning experiences, but he feels abandoned, and he's-- he was going through a period of wandering because he had been adopted--about abandonment and father figures. And he has on the Board, Arthur Rock, who had been a father figure, Mike Markkula had been a father figure, John Sculley, and they all go around the room and vote against him and abandon him. And he really takes it hard.

**John Hollar:** How does he recover from that? I mean, when he talked to you about that period, pretty dark time, what did he say?

**Walter Isaacson:** Well, he described vividly every single day of that week, including where the food came from when he was serving it on the patio when they're trying to bring Mike Markkula around. It's still seared into his mind.

**John Hollar:** And this is almost 25 years later.

**Walter Isaacson:** Yeah, this is Memorial Day weekend of 1985. He goes to Europe for a while, bicycles around with a gir-- he then talks to some people and comes up with the concept of doing NeXT computer, and by the end of '85 has recruited a handful of people from Apple causing a lawsuit. This is really bad at this point, because the Board and Sculley and all think, "Okay. You're stealing our people." And he creates NeXT. He says in his Stanford speech and he said to me, "Being fired at Apple was the best thing to happen me. It liberated me. It helped me change." I actually think it was the experience at NeXT that in some ways liberated him and matured him more.

  

**John Hollar:** Why was that?

**Walter Isaacson:** Well, you know at NeXT, there was no board of directors sitting on him. There was no CEO brought in. He could indulge every instinct. So, his instinct for design-- he gets Paul Rand, the grand old designer of logos. So, I think a hundred thousand dollars just to do the NeXT logo before they even have anything. He gets a beautiful headquarters with a patented staircase. You can see them now in Apple stores, but it was-- everything had to be-- he wanted his own factory. He wanted the NeXT to be a perfect cube, and those of you who have been involved in computer manufacturing know, usually there is sort of a draft angle that means that it's 91 degrees or so, so that you can actually pull it out of the mold. If it is exactly 90 degrees, it's harder to get-- No. Exactly 90 degrees. And it meant they had to do a special manufacture. It had to be matte black. Everything about it was him indulging this insane drive for perfection, including building the factory, having it in pure white and having it be robotic. So, it is a glorious machine that's an absolute market failure, and at the very first Macintosh offsite, he does a series of maxims on the whiteboard, and the first one is "Don't compromise." That's a great inspiring maxim. It's also not really a great way to run a business. As Ben Franklin said, "Compromises may not make great heroes, but they do make great democracies." At a certain point you have to learn how to make tradeoffs, and that "don't compromise" mentality-- he had it for a while until he finally realized you don't have to compromise your principles, but you have to have some sense of balance, and that's what he learned at NeXT.

**John Hollar:** And simultaneously was doing Pixar.

**Walter Isaacson:** Pixar is a wonderful example of what we said at the very beginning, the intersection of art and technology. A friend of his had brought him up to George Lucas's to meet some of George Lucas's people. Lucas was getting rid of the digital animation software and hardware division he had. Steve thought that was really cool. He thought he could make for consumers the ability to do digital rendering. That never really took off, but there was one guy working there who was in charge of making shorts to show off how cool the machines were, named John Lasseter, and he made a couple of shorts with a Luxo lamp and then one called "Tin Toy", and the rest, as they say, is biography, if not history. He makes one that eventually leads to "Toy Story". So, Pixar becomes a transformative thing in the animation business.

**John Hollar:** Now, he says something very profound to you in the book about that period, which is the strain that running Pixar and NeXT simultaneously put on him physically. And he even says, "I think that had something to do with my eventually getting cancer."

**Walter Isaacson:** I don't think that's the case. I don't think you get cancer from working hard or stress. Well, I mean...

  

**John Hollar:** But it was a period when...

**Walter Isaacson:** But, he felt that way, and he felt there was great stress. He was driving up to Pixar. He was handling-- and then, of course, when he goes back to Apple, he is juggling quite a few things. I think that was a time of great stress in his life and also some happiness. NeXT is not doing very well. Those machines aren't selling. And Pixar, you have to remember, it was a hardware/software company, and nobody's buying the Pixar-- except for Disney bought a few Pixar imaging machines. But it's not selling that well. And so for a while he is hemorrhaging money at both companies.

**John Hollar:** And also, one of the most wildly creative periods, too. Right?

**Walter Isaacson:** Absolutely.

**John Hollar:** I mean, Pixar was producing these phenomenal films...

**Walter Isaacson:** Well, by the time they produce "Toy Story", they're no longer hemorrhaging money.

**John Hollar:** Right, yeah. Did he long for Apple during this period? Was there-- did he ever really fully give up on the notion that somebody needed him back?

**Walter Isaacson:** No, Apple was his baby. Apple was his child. I don't know that he just longed for it, but he was deeply frustrated that it was being screwed up. That after a while they weren't inventing new products, and the products sucked. And they kept just coming out with more lines of Macintoshes but not a better machine. They couldn't even create an operating system, a new Mac OS. And so I think he's watching as people screwed up the wonderful baby he helped create.

**John Hollar:** And finally it leads to his triumph and return.

**Walter Isaacson:** Well, because they can't create an operating system, at a certain point Gil Amelio who is then running Apple says, "Okay. I've got to buy an operating system." And he looks at the BOS, which is Jean Luc Gassays [ph?]. He looks at even Microsoft, the question of adopting of Windows. That would've been weird.

<laughter>

  

**Walter Isaacson:** And then there's this amazing operating system that Avie Tevanian and Steve Jobs had done at NeXT with a UNIX kernel to it, which is exactly what Apple needed, and so eventually Apple decides they have to buy NeXT to get the operating system. But you buy NeXT to get the operating system, you also buy NeXT to get Steve Jobs, and as-- I'm not sure it was Woz who said it, but I think it was. "Gil Amelio meets Steve Jobs. Game over."

<laughter>

**Walter Isaacson:** And soon, Steve Jobs is back in the saddle again.

**John Hollar:** Well, in fact, you tell that whole story. Amelio tried to resist that, but he just found himself...

**Walter Isaacson:** Game over. <laughs>

**John Hollar:** ...being drawn in. The reality of the extortion field kicks in.

**Walter Isaacson:** Yeah.

**John Hollar:** And then begins maybe, arguably, one of the greatest decades that any corporation has ever had.

**Walter Isaacson:** Totally stunning. First of all, he creates-- with the new operating system, he brings Bill Gates, his doppelganger, his part of the binary star system, that falling out and love/hate relationship. Gates comes back, makes an investment, starts making Microsoft Word and Excel and others for the new Mac OS, but he also truly focuses on design. Y'all remember and you probably have it here, but not on stage, the first iMac. I mean, he meets Johnny Ive when he first goes back to Apple in 1997, and they form this bonding, and they create the iMac. Johnny Ive sketches it out. It looks almost like a rabbit that has hopped upon your desk. Steve says, "That's not good," but they keep playing with the model until they have it beautiful. They make it translucent Bondi blue. They even go to jelly bean factories and say, "How do you make it look right?" It lets you see the circuit board inside to see how neat that circuit board is. And Johnny Ive even comes up with a notion, even though it's a big desktop machine, of putting a recessed handle. And the engineers say, "Well, that's going to cost too much money. You don't need a handle. Why would you want a handle? You're not supposed to pick it up." And what Steve and Johnny intuitively understood was that computers were still intimidating to people, but the handle gives you permission to touch it. It says, "I'm at your service." And so just by having that recessed handle, even if you didn't use it, you felt that the computer was being differential to you. So, that beautiful design-- and when they finally have flat screens, they take the iMac and Johnny designs something with the-- and Steve says, "No, no, no. Integrity to the flat screen. You've screwed it up." He goes home. Johnny

comes back to his house-- to Steve's house. In the backyard Laurene has planted all these sunflowers. They walk around trying to figure out what to do, and finally you get that beautiful iMac that's just a little dome with the sunflower neck so that it has integrity to it. And everything they do, whether they're playing with plastic or titanium or metals, it's distinguishing Apple from those commodity machines that Dell and HP and Compaq were turning out.

**John Hollar:** So once he rights the ship with that strategy when he goes back, he makes a kind of incredibly bold decision, which is...

**Walter Isaacson:** 2001. Yeah.

**John Hollar:** It's not going to be a computer company anymore.

**Walter Isaacson:** They used to take the top 100 and go off on retreats and say, "Here's what we want to do next." And everybody would fight to get on that list, and finally they'd get the list to ten, and then Steve would cross off the bottom six or seven and say, "We can only do four." And it was, "Stay focused." When he went back to Apple, that was it. "Focus on four things, desktop, laptop, home, professional. We're not going to make 20 lines of Macs. We're going to make four," and so that focus. But then when he nails it and he gets that right, at the top of the list is maybe consumer devices, products, and what he does is he realizes that by having end-to-end control, the hardware and the software, you can create a digital hub where you can put your video camera by FireWire, connect it to your computer and manipulate your video, create DVDs. The one thing he screwed up slightly was he didn't-- he wanted a tray slot in the new iMac, and he was furious when-- I'm sorry, he wanted one of those pure slots, and when they put a tray in, he was furious, and he made them eventually change it to just a slot, but it meant you couldn't burn music CDs when Panasonic and others came out with the burning of CDs. And he was so focused. The notion of focus, focus, focus. He was focused on video. So, the doing of iDVD and that sort of thing, he can-- calls up Adobe and says you've got to make your video editing software for the new Mac OS. And unlike Bill Gates, who said, "Yes," and came down and made Microsoft for it, the people at Adobe said, "No. You've got too small of a market share." And as you know, he never quite forgave Adobe, which is why Flash doesn't work on your iPad.

**John Hollar:** Yeah.

<laughter>

**Walter Isaacson:** But, the mark of a true genius of a company is not when you think of-- not just when you think of things first, but when you actually fail to think of something first, can you leapfrog? Can you catch up? And so he realizes he had gotten aced out of the music business, that others were making CD burner trays and people were-- all of us were making downloading music from Napster and making

playlists and burning CDs, and you couldn't really do it that well on the Apple. So, he had to leapfrog, and he says, "We're going to do it by making a perfect end-to-end thing with a jukebox software," which is iTunes, "the store in which you get your music, the device itself." And when they start making the iPod, he makes it so simple because it's end-to-end integrated with the whole thing. You can take some of the complexity and put it on the Mac or put it in the iTunes software so that the device itself is not one of these complicated MP3 players where you had to figure out how to do it, you could just look at it with that track wheel, and it was intuitive. And he kept saying, "I want to be able to get to wherever I want, whatever song I want, whatever function I want in three clicks, and I want it to be intuitive." And he drove them and drove them and drove them until the iPod becomes perfect, and that's when he leapfrogs and does the music, but it takes Apple from being Apple computer, (they even changed the name to just Apple) into being in the digital hub business. First with DVDs and video, then really big with the iPod in music, and now iPod is hugely successful, so he starts to worry. What's going to kill it? And he realizes people putting music on their phones will kill it. So, he focuses and does the iPhone and does it at first-- they do two versions of the iPhone. One with sort of an iPod modify with a track wheel, which wasn't very good for a phone, and then would Johnny Ive, many other people, and goaded on by Microsoft and an engineer there that Steve didn't like, this notion of a touchscreen technology. And when he finally sees how the touchscreen can work, he says, "That does it. That's how we're going to do the iPhone." And so you have a series of consumer advises-- devices from the decade beginning in 2001, most prominently the iPod, the iPhone, and the iPad that totally transform industries.

**John Hollar:** And at the same time, he's bending other industries in the direction of his vision.

**Walter Isaacson:** The music industry...

**John Hollar:** The music industry, Disney...

**Walter Isaacson:** Retail stores.

**John Hollar:** Retailers.

**Walter Isaacson:** He can't buy the fact that he's making these insanely great products, and they're being sold in big-box stores by clerks who have no idea with what they're doing. So, he comes up with a notion of the Apple store, which is not just a store, but a whole branding exercise. And it just-- that notion of bending industries-- for the iPod and iTunes store to work, you had to convince seven record companies to put all their music on and disaggregate albums and sell the songs instead of the albums. Sell the songs for 99 cents initially. And none of the music companies quite wanted-- they had their own press play, and they were doing their consortia. Obviously Sony was trying to-- they'd done the Walkman. They had a great music division. None want to come aboard, and Steve personally is like bringing the iTunes software to the Time Warner building, showing it to Rod Jurames [ph?] at Warner

  

Music, getting him aboard, and then getting Doug Morris at Universal, finally encircling Sony. No other CEO would've been so passionate about just going at people until they finally surrendered, and Sony's the last holdout. There's a great story Andy Lack and others told me. Andy Lack was running Sony music at the time. He has to surrender. He has to put Sony music in, but the one thing that Steve wants is all of Dylan, because he and Woz in the early days found every bootlegged tape. They had-- totally Dylan fanatics. It's a soundtrack of Steve's life. Dylan is a Sony artist. So, he wants to do all 772 tracks of Dylan as a virtual digital set that you can buy for a hundred and ninety-nine dollars. Andy Lack at Sony says, "No. I'm going to jab it to him because I need leverage. We're not going to allow Dylan to be on." Steve calls Bob Dylan. Bob Dylan, with all due respect to one of the great artists of our time, slightly spacey, so he doesn't quite deal with it, but so one of his managers-- they're all trying to figure out. Steve Jobs talked him into it. Andy Lack finally says to Bob Dylan, I will write you a check for one million dollars, if you'll stay out of the iTunes store with that box set for a year. And Dylan, I hate to say it, because I love Dylan, takes the money. But a year later Andy Lack is moved out of Sony, and Dylan's box set not only goes on to the iTunes store, Dylan does an iPod ad, you may remember, with silhouettes and Dylan wearing the cowboy hat. And you know what? It helps Dylan more than it even helps the iPod. For the first time since 20 years, he debuted with an album at the top of the Billboard charts. Because iTunes and the iPod had such a cachet that him just doing that ad introduced him to a new generation. You look skeptical about some of those questions.

**John Hollar:** I'm not skeptical. These are actually a lot of excellent questions. My expression is meant to say, "Where do I start?" But let me just ask you one other question before we get into the cards, which is about the final chapter. You write, "If reality had not comport with his will, he would ignore it, as he had done with the birth of his daughter and would do years later when first diagnosed with cancer." I think when I talk to people about the question they most wanted me to ask you tonight, easily in the top three was, why, when he was first diagnosed, did he undertake all these other natural nonmedical solutions?

**Walter Isaacson:** There are two sides, at least, to Steve Jobs at all times, whether it's his personal life, cancer, professional life, and the products he made. There is a counterculture, sort of alternative, romantic sensibility of Steve, and there's the hardcore engineering, scientific side of Steve. And the cancer was no different. Both sides kick in, and he spends a lot of time wrestling with those two alternatives. Wrestling with alternative treatments and diets, but also, as I say in the book, it didn't get as much having his DNA sequenced, having targeted therapies done. Now, unfortunately it takes some months before he does what he does in every other aspect of his life, is find the perfect synthesis of something that is both very scientific, but also comports with his alternative view of things, and so he does-- it takes longer-- I don't know-- It was implied that had he gotten operated on right away or something, he might've stopped the cancer. I don't-- we don't know that. I mean, cancer spreads in mysterious ways. So, it's quite likely the cancer had already spread, but it was somewhat typical of Steve to say, "The normal rules don't apply to me. I'm going to look at this from both an alternative viewpoint, as well as a deeply rooted scientific viewpoint." Everything in some ways that he does in his life ends up being a synthesis of that hippie rebel with the guy who was in the Hewlett Packard Geek Explorers Club.

  

**John Hollar:** It's interesting. I'm going to start with a couple of these questions now. What was the greatest misperception about Steve Jobs in your mind that was addressed or maybe that you could address in this book?

**Walter Isaacson:** I think the greatest misperception and came right when the book first came out and people were quickly reading it and pointing out anecdotes is that the petulance and the impatience that were inbred into his character from the very beginning was just sort of a weird thing. Instead of part of a--his own personality was integrated, including with his profession and the products he made, just like Apple products are integrated. So that perfectionism and artist temperament or bratty temperament (you call it artist or bratty temperament) that's not some disconnected little thing that has nothing to do with the passion for perfection or the product drive that he had. And so I try, and that's what the last chapter is about, to show how all of this was woven together.

**John Hollar:** So, the words like "petulant" and "bratty" are also maybe a little euphemistic for some other much stronger words that you use in the book from time to time.

**Walter Isaacson:** Well, he uses it. I remember, I was at Time, Inc., and at one point Fortune was doing a story involving his cancer, because they were the ones who reported the cancer treatment first, not my book. And one of the things that Steve was furious and called up the editor, and the editor-in-chief. I was there and heard the stories, and finally he says to Andy Serwer, the editor of Fortune, "Wait a minute. So, what do you have here? You've discovered I'm an asshole? Why is that news?

<laughter>

**Walter Isaacson:** So, he was very self-aware that he could be a strong cup of tea.

**John Hollar:** Yeah. Yeah.

**Walter Isaacson:** Yeah.

**John Hollar:** This is an interesting question. Did he have to be who he was in that way to do what he did?

**Walter Isaacson:** That's a question I'm most asked.

**John Hollar:** To do what he did.

  

**Walter Isaacson:** Did you have to be that way? Andy asked me to ask. Did you have to be that way to get done what you did? And I'm going to back off a little from giving you a great answer, because I'm a storyteller. I had to write about the person who was in front of me. That's who he was. So, I wrote the story of him. This is not a how-to book. This is not a manual for "Do you have to be this way to run a company?" Well, of course you don't. I mean, there are very nice people who run very successful companies, and there are also total assholes who are total failures at running companies. That said, I am not trying to say, "Here's the way to do it like Steve did." I am trying to write a book about a flesh and blood human being, who I didn't know all of his aspects, but when I knew them, I tried to tell that story. And part of that story is being driven or that's euphemistic, and had he not been that way, I doubt he would have been as successful. On the other hand, I suspect there were other ways to get things done at times, but when you say, "Did he have to be that way?" My only job is to tell you what the way he was, because I'm just a biographer, not a preacher or a management consultant.

**John Hollar:** Do you think that question will be answered with the luxury of distance and time at some point?

**Walter Isaacson:** Yeah, I mean, I guess. Clayton Christensen and other great management gurus could probably do a case study of you can take all the Jack Welch's and blah, blah, blah and say-- I was-- 60 Minutes was saying, "Wasn't he-- did he have to be so hard? Did he have to be so tough?" I said, "Wait a minute. You worked for Don Hewitt." Don Hewitt was a genius. He was also a real pain in the butt. We all know people like that. I guess you could do a study of nice bosses, tough bosses, jerks, whatever, and correlate it somehow with the regression analysis and say, "Who's more successful?" But that's way above my pay grade.

<laughter>

**John Hollar:** Are you writing the screenplay and would you choose George Clooney?

<laughter>

**Walter Isaacson:** I am not. I have nothing-- the reports of the movie are premature and way overdone, and I'm not even talking about it, but I'm not involved. No.

**John Hollar:** Can you see George Clooney in this role at all?

**Walter Isaacson:** I am not a movie person. In fact, I had trouble when I was dealing with Steve. Steve went over every frame of Pixar movies the way he went over every tamper and curve of the first Macintosh. And he would say something about "Finding Nemo" or whatever. And I remember having to

go back and quickly download those movies, because I just don't know-- it's one of my blind spots. In fact, when I was editor of Time, I was famous for making really bad movie cover calls. So, asking me who should play what in a movie is hard.

**John Hollar:** Alright. We'll give you a pass on that one. So, I'm going to read you the preface that is on this card. It says, "On behalf of archivists and historians out there, what were Steve's stipulations about using the interviews you collected for this book and where will they ultimately be deposited?"

**Walter Isaacson:** Yeah. Most of them are notes. Some transcripts of the four or five formal interviews he gave me. My notes will go somewhere. Maybe should we talk, but not for another 20 or 30 years and not...

<laughter>

**Walter Isaacson:** I mean, partly because Steve and then the people around Steve, would say things that could be very hurtful or they'd say, "don't need it," or they'd say something just offhanded, especially Steve, about certain things. And there are things I didn't put in the book, and there are things that I would have to take out of those-- my notes, just cause they were unnecessary to understanding Steve. And probably in the interest of kindness, you don't want to hurt people with certain comments. So, I will someday go through my notes, and if it's the 20-year rule, maybe some of the things will have gone by the wayside.

**John Hollar:** Someone picked up on that quote about "great artists steal," and said, "He said that. Yet he resented Bill Gates and Google and many others for many years for stealing from Apple, as he saw it. How did his Zen-self reconcile this?"

**Walter Isaacson:** Steve was not an expert at reconciling conflicting things.

<laughter>

**Walter Isaacson:** Emerson and many others have great quotes about people can body conflicting thoughts at the same time. Steve was totally ballistic first at Bill Gates and Microsoft for ripping off, as he put it, the Macintosh graphical interface. And then, of course, famously berating and saying to me in the book with words of one syllable, how he felt Android and Google had ripped off the Apple mobile operating system. Did he-- No, he didn't try to reconcile that with the fact-- but I will say he didn't rip off Xerox. There was a financial deal. Xerox invested a million dollars in Apple. There was an exchange of technology. I think he has some right to feel that he came up, or Apple came up, with both the beautiful Macintosh operating system and then it pretty much is copied by Windows, and likewise the mobile

  

operating system. You can argue, as for ten years in court-- there were an argument, about whether you can copyright the look and feel, whether there's an intellectual property theft there, but I can understand why he was pissed off.

**John Hollar:** Given his mercurial-- there's a great story in the book about mercurial...

**Walter Isaacson:** Mercurial. I love the word.

**John Hollar:** ...and dictatorial style, how was he still able to engender such creativity and loyalty in his organization?

**Walter Isaacson:** I'll first of all tell the mercurial story.

**John Hollar:** Yeah, it's a great story.

**Walter Isaacson:** Because it's the part of the self-awareness of Steve, because he was mercurial. And so he's showing off the next computer at Symphony Hall here when it's being unveiled. Among other things, he had helped invent digital books. They didn't exist, but he put a thesaurus and all of Shakespeare's work in digital form in NeXT. Show he's showing off the thesaurus, and he says, "Sometimes I'm called mercurial. Let me look it up." And it says changeable moods, whatever, and it says antonym, saturnine, and then it describes saturnine as somebody who doesn't have enough motions. And he said, "Well, maybe it's not so bad to be mercurial, is it?" So, I think he understood his mercurial nature and that that was a part of who he was. And having said that, I've now forgotten the second half of the question.

**John Hollar:** It was-- given that he was that way, how did he engender such creativity and loyalty?

**Walter Isaacson:** Oh, look. When you're creating a machine as insanely great as that, even if you're in the middle of the night saying this code sucks, you got to make it better, by the time you've created, as an engineer, the original Macintosh, you are loyal to the genius and the vision there. And people who have strong personalities either can turn people off or they can say, "Hey! I got inspired here and got to be on a team." And look, the proof is-- I hate clichés like this, proof being in the pudding, but look at the team he even has at Apple. If he's that bad of a boss, why do so many A-players stay with him? Well, because they like to work on a team with only A-players, and if he got-- if he ran off a lot of B-players, that doesn't mean that that team at Apple filled with A-players-- they're quite loyal to him.

  

**John Hollar:** Can you talk a little bit about the relationship between Larry Ellison and Steve Jobs? They both describe each other as close friends.

**Walter Isaacson:** Well, Larry says that best friend-- It was a deep, friendly relationship. One of my favorite anecdotes is I think late '96 and the question of Steve coming back to take over Apple is first being kicked around. And Larry Ellison says, "Why don't we buy Apple? Why don't I launch a hostile takeover? I'll buy Apple. We'll put you back and it'll set it into motion again, and we'll all make a lot of money." And Steve finally says, "I think I might go back to Apple, but I don't want you to invest. I don't want you to buy it. I don't want me to invest. I want to be able to go back at a dollar a year and no ownership of it." And Larry Ellison says, "But Steve, if you do it and you come back that way and it makes it a great company again, how am I going to make out-- how are we going to make money, if we don't invest in it and buy it?" And they were walking along a beach, and Steve grabs him by both shoulders and says, "Larry, this is why it's important I'm your friend. You don't need any more money."

<laughter>

**Male:** It didn't take.

**Walter Isaacson:** It didn't-- well, I won't go there. I'm not doing a...

**John Hollar:** A couple of more questions. First, well before I get to those two, let me just ask you quickly about the current technology, this great conversational interface that Siri represents.

**Walter Isaacson:** Siri.

**John Hollar:** Did he talk much about that with you?

**Walter Isaacson:** Yes.

**John Hollar:** What the vision for that is?

**Walter Isaacson:** Yeah. I do think that the simplest, most natural interfaces have always been his passion, and there's no simpler one than just talking. I did not know the name Siri, but we talked a little about it, and I was careful in the book, even though he told me a lot of things that he-- in detail, what he wanted to do, I decided, I shouldn't put in things that he might not be able to do and that Apple may be working on for the next couple of years. But at the last Board meeting when he tenders his resignation as CEO, they have a lunch afterwards, and all the engineers bring out the various things that they're working

on. And one of them, which I knew would come out pretty soon, so I put in the book, is this voice recognition thing. And I do have Steve try-- and they are panicked, because they know Steve is not feeling very well, but he has been brought into this meeting-- that he's going to try to make it look bad. So, he asks what is now called Siri, a few que-- "do I need an umbrella?" And Demar [ph?] says, "The prediction is for sunny day tomorrow in Palo Alto." So, it really is doing a beautiful thing. So, finally Steve says, "Are you a man or are you a woman?" And they all kind of hold their breath, because he's trying to trick the machine. And Siri is very good, the two layers of it. And it says, "They have not yet assigned me a gender."

<laughter>

**Walter Isaacson:** And they all breathe a sigh of relief, and Steve thinks it's great. So, he loved that technology. By the way, Bill Gates was always-- Everybody's been trying to crack voice recognition.

**John Hollar:** Yeah. Yeah. What do you think of the Apple that he leaves behind? You've talked about the team and the great group that he's built. There's certainly-- there's rumored to be this product roadmap that goes on and on, but the history of technology companies with a founder like this and someone driving it with a vision like this leaving is not great overall. What do you think about where Apple goes from here without Steve Jobs?

**Walter Isaacson:** Well, at the last meeting I told you about when he goes to the Board and does that lunch, somebody at the lunch makes fun of HP, because that day or that week it had gotten out of the tablet business. Was either getting in or out of the PC-- it was totally confused. And Steve said, "Wait a minute." He stops the person who is making fun of the troubles at Hewlett Packard. He says, "When I was 13, Bill Hewlett gave me my first job, and he and Packard created a company that was imbued with their DNA that was designed not only to make a calculator and then make a computer and make other things, but to continue and last and continue to make new products and come up with new ideas even after they were gone. And those bozos screwed it up for Hewlett and Packard. I don't want that to happen at Apple." And he tried deeply to fight off the bozo explosion so there was only a great team of A-players, but also to say there's a simple, simple thing that Apple stands for, which is the intersection of great creativity in the humanities with great engineering and technology. And he said, that's what Disney did. That's what a lot of people have done. There are companies that last. IBM is almost a hundred and one years old. I think Apple has imbued in its genetic code this desire to drive great design and artistic creativity with great design-- with great engineering and technology, and it will be at that intersection. And the people there now are capable of keeping it at that intersection. Ten years from now. Twenty-five years from now. Look, Disney ups and down, ups and down, but you still know what Disney stands for, and it's doing fine right now after a few rough patches since Walt Disney died. I would, if I had to wager, and unlike Rick Perry, I am a betting man.

<laughter>

  

**Walter Isaacson:** Not ten thousand dollars, but I would wager that a generation from now, even a century from now, Apple will still exist at the intersection of the humanities and the technology.

**John Hollar:** So, that's Apple. Now let's-- one final question about Steve Jobs. So, a hundred years ago, the great industrialists and philanthropists, Carnegie, Rockefeller, Mellon, build institutions, as well as corporate legacies, and that legacy survives. Steve Jobs, had he lived longer, might've done the same thing, but he chose not to do it for whatever reason now. And his legacy is Apple, but it's built on a rather shifting sandbar of technology. So, a hundred years from now, you've talked about what you think Apple will do, what do you think the legacy of Steve Jobs will be as people look back on him in this era?

**Walter Isaacson:** Well, I do-- I did ask him what will-- The last five or six pages of the book is just him talking outright about what's your legacy. It's putting something back in the flow of history after you've built on those who went before you. I asked him what was his greatest creation, thinking maybe it'd be the iPad or whatever. He said, "No. Apple the company, because products come and go, but the hard part is making a company that will continue to make good product." So, I do think Apple will be his legacy, but also more specifically, the legacy will be somebody who truly transformed industry after industry by pulling together great ideas and driving the technology to support them. Look at the iPad. People made fun of it. I was there when he launched it. There were all sorts of articles, "What is that? An iPhone on steroids? Nobody makes a tablet work." The iPad is now-- whether I walk into a doctor's office or anywhere else, it is transforming industry after industry. Two billions dollar last year just in the industry of creating apps for it. The textbook industry. Carnegie was great with education philanthropy. Bill Gates was great with education philanthropy. In the end, the iPad may change education as much as any of the Carnegie schools. So, I think he's got a pretty solid legacy, if you look at each of those industries he transformed.

**John Hollar:** So, we often ask our authors to do a short reading at the end, and you graciously agreed to read the coda of the biography, and I wonder if you would do that for us now.

**Walter Isaacson:** Yeah, thank you. I-- as I said, I end-- I'll start earlier on. I do end one more thing, his signature phrase. And I do say biographers are supposed to have the last word, but this is one of Steve Jobs, and even though he didn't impose his legendary control, I suspect I would not be conveying the right feel for him and the way he asserted himself in any situation, if I just shuffled him on history's stage without letting him have some of the last words. So, I really take a series of interviews I did with him about his legacy and just let him talk without me getting in the way. But then the coda is about a sun-- one sunny afternoon when-- in the back garden of his house, he wasn't feeling well, and he reflected on death. And I say, "He talked about his experiences in India almost four decades earlier, his study of Buddhism, and his views on reincarnation and his views on spiritual transcendence. 'I'm about fifty-fifty on believing in God', he said. 'For most of my life, I've felt there must be more to our existence than meets the eye.' He admitted that as he faced death he might be overestimating the odds out of a desire to believe in the afterlife. 'I like to think that something survives after you die. It's strange to think that

  

you accumulate all this experience, and maybe a little wisdom, and it just goes away. So, I really want to believe that something survives that maybe your consciousness endures.' And then he fell silent for a long time, and then he said, 'But on the other hand, perhaps it's just like an on/off switch,' he said. 'Click. You die. You're gone.' And then he paused again. It was a long pause, and he smiled slightly, 'And maybe that's why I never liked to put on/off switches on Apple devices.' "

<laughter>

**Walter Isaacson:** That's the end.

<applause>

**Walter Isaacson:** Thank you very much.

**John Hollar:** As someone once said, this evening with you has been insanely great. Walter Isaacson. Thank you.

<applause>

**Walter Isaacson:** Steve Jobs is the one who was insanely great.

<applause>

END OF LECTURE

  