STEVE JOBS – INNOVATION MANTRA – SECOND INNINGS

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ABSTRACT

One of the things Steve did was streamlining the product line. He cancelled many projects which didn't fit into his vision for Apple. He always believed in tight integration between hardware and software. He wanted to be in charge of complete user experience. Apple certainly had established processes but he was fierce about not allowing processes to get into the way of innovation.

Apple never invented anything completely new. It didn't invent the personal computer, the MP3 player, downloadable music, the mobile phone, or the tablet computer. Instead Apple is considered best at one thing: Making complex things simple and elegant. That's made Apple the most innovative company of the world.

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1. INTRODUCTION - RETURN TO APPLE

One of the things Steve did was streamlining the product line. He cancelled many projects which didn't fit into his vision for Apple. One of it was Newton. It was a handheld personal digital assistant that could recognize hand-writing. It was doing ok in the market. But Steve wanted to scrap it. The reason for his dislike for Newton was it required a stylus for writing on the screen. He would say, "God gave us ten stylus. Let's not invent another." His philosophy about stylus remained unchanged for Apple products which were made later. But many Apple observers kept saying that he didn't like Newton because he thought it as John Sculley's pet project. Another important decision was to cancel licensing Macintosh operating system. Michael Spindler who was Apple CEO in 1994 had permitted licensing to small companies. However, Apple didn't get much of financial benefits from the deal. It earned only \$80 licensing fee per piece. But manufacturers made up to \$500 in profit. Steve didn't cancel licensing just because of economic reasons. Not only he cancelled the licensing but he didn't allow the manufactures to upgrade it.

2. iMac

iMac was the first Apple product launch after Steve's return to Apple. It was a desktop computer made for the home consumer market. The 'i' stood for 'Internet' but as it was a personal and revolutionary device, it also suggested 'individuality' and 'innovation'. It was priced at \$1,200. Prior to iMac no Apple computer was selling for less than \$2000. However, the earlier plan was to make a "network computer", which was supposed to be an inexpensive terminal which didn't have a hard-drive. But in order to make the product more robust a disk drive was added that made it a full-fledged desktop computer for the home consumers. Along with a hard drive, it also had a tray but didn't include a floppy disk-drive which was prevalent in computer those days.

During the design of the iMac, Jony Ive had shown a dozen of foam models. But Steve rejected all of them. But Ive was smart enough in pursuing Steve. He agreed with Steve that they were not quite right. But he suggested Steve to think over one of the models which was promising. It was curved, had a fun-look and didn't look like an unmovable block that was stuck to table. Steve finally agreed to it. Although Apple was running 'Think Different' campaign, yet it had not proposed anything that was much different. With the new iMac design finally, Steve had something new to offer. iMac had a plastic case which of sea-green blue color, which was later named as bondi blue. It was transparent so that the user could see the inside of the machine. Perfectionist Steve had always demanded that the rows of chips on the circuit boards look neat, even though the user would never see them. With the new design the user could see it. The perky design conveyed simplicity. However, the making of the plastic exterior meant lot of complexity in manufacturing. Ive's team toiled hard with Apple's Korean manufactures to make perfect plastic cases. They visited a jelly bean factory to understand how translucent colors were made. Each case cost more than \$60 per piece and was three times costlier than that of regular cases. To give nod to such a decision any other company would have demanded presentations and studies whether these different looking cases would increase sales of computers. Steve gave approval without any such analysis. The plastic case had a handle on the top. iMac was a desktop computer and very few were likely to carry it around. Ive thought that the handle would make the computer approachable, intuitive and would take away the scare of a user for technology. When he showed it Steve, he called it 'cool'. Ive said, "I didn't explain all the thinking, but he intuitively got it."

Different design meant challenges for engineers. The engineers kept giving practical reasons why things couldn't be made for the new design. Steve refused to accept any of it. At the launch of iMac in May 1998 Steve said, "It looks like it's from another planet a good planet a planet with better designers." Like Apple II and Macintosh, iMac too turned an iconic new product. Apple could come up with something which was true to Apple's "Think Different" motto. In times of bulky system units and monitors with tangled cables and complex set of manuals, iMac came as fresh breath of air as a friendly and good-looking appliance. It had a handle on top of it which could be used to take it out of the equally beautiful white packing box and could be plugged into wall socket. iMac was appreciated for its funky design. Apple's major rival Microsoft wasn't late in dismissing it. Talking to a group of financial analysts Bill Gates called it just 'a passing fad'. In fact, he had jokingly painted a Windows-based PC in red. When Steve came to know about it, he couldn't contain his anger. He told a reporter that Bill Gates had no clue about what made the iMac so much more appealing than other computers. Commercially too iMac turned out to be successful. 32% of its total sales went to people who were buying the computer for the first of time and 12% of people had switched to it from Windows machines.

Ive proposed four more juicy-looking colors later. That meant huge work for manufacturing, inventory and distribution. Any other company would have taken days and months of meetings

and studies looking at cost-benefits. But for Steve, one visit to Ive's design studio was enough. He was enticed and called his executives to the design studio and announced his decision to make iMac with all four new colors.

3. FIREWIRE

Apple had developed FireWire in early 1990s. This serial port allowed in moving digital files like video from one device to another with a high-speed. Japanese camcorder makers were using it, and Steve decided to make it a part of the updated versions of the iMac. However, that required good video editing software. Steve approached Adobe. He wanted them to make a version of Adobe Premier for the Mac. However, Adobe executives thought it wouldn't make any business sense to make software for the iMac which had very users compared to Windows machines. They refused to make software for the iMac. Steve was stunned by the refusal. Adobe also didn't make iMac version of Photoshop, although it was mostly used by the designers and creative people. Steve came to a conclusion that Apple should not get into any business where it didn't have control over both hardware and software in order not to find itself at the mercy of the other. Apple started making its own application software in 1999. That included simple digital video editing software iMovie, disk burning software iDVD, iPhoto which was similar to that Adobe Photoshop, music creating and mixing software Garage-Band, song managing software iTunes and later iTunes Store for buying songs online. Apple was the first company that came up with DVD burning. It worked hard with drive manufacturers for developing a consumer drive that enabled DVD burning. This bitter experience with Adobe was considered as one of reasons that Steve refused to allow Adobe Flash on iPad. Steve had his own technical reasons for not allowing Flash.

While talking to BusinessWeek computer editor peter Burrows in 2004, he said, "Innovation comes from people meeting up in the hallways or calling each other at 10:30 at night with a new idea, or because they realized something that shoots holes in how we've been thinking about a problem. It's ad hoc meeting of six people called by someone who thinks he has figured out the coolest new thing ever and who wants to know what other people think of his idea."

Steve is often misunderstood for his endorsement of Picasso's quote "Good artists copy, great artists steal." Some critics used it to show that Steve didn't have original ideas. But what Steve actually meant was finding inspiration outside the computer industry. If one reads the quote which rarely appears in print, the entire quote reads: "it comes down trying to expose yourself to the best things that human have done and then try to bring those things into what you're doing. Picasso has a saying. He said, "Good artists copy, great artists steal.' We've always been shameless about stealing great ideas. Part of what made the Macintosh great was that the people working on it were musicians, and poets, and artists, and zoologists and historians who also happened to be the best computer scientists in the world."

4. MAGSAFE

Steve could make associations with lot of unrelated things when it came designing computers. The AC adapter that plugged an Apple laptop into wall socket us called MagSafe. It is magnet connecting the computer to the power cord. The users at times get their foot caught in the power cord and the laptop gets crashed on the floor. MagSafe prevents such situation by easily and safely disconnecting the computer from the cord. Apple took this idea from Japanese rice cooker and that was Steve meant when he talked about stealing idea. He could make an association between two unrelated things, rice cooker and computers. Japanese rice cookers have magnetic latches for preventing them from getting spilled. Especially if a child trips the cord and the cooker falls on the ground, the consequences can be irreversible tragedy. MagSafe

was introduced in 2006 from MacBooks and the customers loved the feature. They found it as one of the coolest, most innovative concepts in a long time. Some were dismissive of it, calling it an 'old' idea which was basically used in Japanese cookers and deep fryers which were sold at Walmart. Indeed, it wasn't a new idea. Apple could come up with such innovation because none of its competitors could make such associations. Steve could think differently using such analogies and metaphors in offering solutions to customer problems.

Siri, the speak-to-your-phone voice technology which was incorporated into the iPhone 4S wasn't first-of-a-kind. Android and other phones had offered their own versions of the technology a couple of years earlier. However, Steve never aimed at being the first, he aimed at getting it right.

Traditional business schools taught about reduction of risk by diversifying product offerings. Apple, on the other hand, represented the anti-business school philosophy. Apple's approach was to put resources behind a few products and committed itself in making them exceptionally well.

In fact, Apple rivals couldn't innovate the way Apple did. The reasons those are sighted for it are: Steve's commitment to the customer experience and excellence.

5. APPLE STORES

Steve loved keeping tight control over each part of user experience. However, there was one part of the process which Apple didn't own. It was buying an Apple product in a store. iMac had innovative features, but it came with a heavy price tag. iMac was being sold in store where it was surrounded by Dell and Compaq machines. Most of the sales staff didn't have much knowledge of features of iMac. In late 1999 Steve started mulling over an idea of starting a chain of Apple retail stores. He maintained a great level secrecy about it. He interviewed many candidates for finding out somebody who could help him in developing retail stores. One of them was Ron Johnson who was the vice president for merchandising at Target. Johnson joined Apple as Senior Vice President of Retail Operations in early 2000. Johnson recalled, "If Apple is going to succeed, he told me, we are going to win on innovation. And you can't win on innovation unless you have a way to communicate to customers."

One of the unique features of the store was the Genius Bar. It was Johnson's idea which he got on a two-day retreat with his team. He wanted to describe the best service experience. Most of them talked about the service they got Four Seasons or Ritz Carlton hotel. Johnson sent his five store managers to attend the Ritz-Carlton training program. He came up with the idea which resembled to that of a concierge desk and a bar. His suggestion was that of staffing the bar with the smartest Mac people. He suggested the name "Genius Bar". Steve thought it was a crazy idea. He even dismissed the name. Johnson had almost given up, but he came to know that Steve had approved the idea along with the name 'Genius Bar'.

Apple opened many retail stores. However, Manhattan's Fifth Avenue store turned out to be the most spectacular of them. It opened in 2006. It was a testament of Steve's designing passions. It had a 32-foot tall glass cube which served both as an icon and entrance to the store. It had glass staircase which was intended to attract visitors to visit the second and third floor which most of the retail shoppers avoided. It remained open for 24/7 and was located in crowded area. Steve said, "With outstanding service and an amazing location open 24 hours a day, we think the Apple Store Fifth Avenue is going to be a favorite destination for New Yorkers and people around the world." True to its prediction, it attracted fifty thousand visitors during its first year. It also became one of the famous shopping destinations in the world. It also became the highest grossing retail store in the world in terms of per square foot earning.

Originally the design of the store had eighteen pieces of glass on each side. The glass technology present at that time allowed only that. Steve wanted these eighteen pieces to be

replaced with four huge panes. Apple built its own autoclaves to make the glass for it. Steve loved working on things which had a mix of technology and aesthetics. The store design exemplified it. As on August 2014, Apple had 435 retail stores in 16 countries.

6. iTunes

SoundJam MP was an early Mac OS compatible MP3 player and Rio-compatible hardware synchronization manager. It was released in July 1998. Jeff Robbin, Bill Kincaid along with Dave Heller. Apple purchased SoundJam MP in 2000. With the acquisition, three of its developers also moved to Apple. Original SoundJam was full of too many features and had lot of complex screens. Steve personally worked with three of the developers to turn SoundJam into an Apple product. Steve induced them make it more simple and fun to use. SoundJam earlier had an interface which made specify whether he was searching for an artist, song, or album. Steve wanted just a simple box where the user could type anything what he wanted. Sleek brushed-metal look was taken from the iMovie. It was named as iTunes. It came free for all Mac users. It allowed users to save, organize, play and download music files on their Apple computers. Steve launched the software with the slogan ‘Rip. Mix. Burn’.

7. iPod

Although the original iMac had a CD tray, but Steve insisted on a slot drive for the later version. Jon Rubinstein, the head of hardware development had argued against slot drives. He told Steve that the new drives enabling user to burn CDs would be firstly available in tray form than slots. He warned, “If you go to slots, you will always be behind on the technology.” Steve didn’t agree with him. True to Rubinstein’s predictions, Panasonic came up with a CD drive that allowed users to rip and burn the music. It proved to be a major problem for Apple to cater to users who wanted to rip and burn their own music. However, it worked as blessing in disguise for Apple who wanted to find out a way to cater to music lovers. In order to make a leapfrog move over its competitors, Steve decided to enter into the music market.

Steve decided to develop a music player which could work with iTunes software. Steve was passionate about it as he himself was a music lover. The challenging part of the making was getting necessary components. For making a great music player, it required a disk drive that was small, yet had ample memory. In 2001, Jon Rubinstein had been to Japan as a part of his regular business trip. With his meetings with Toshiba engineers, he came to know about a tiny 1.8-inch drive that could store five gigabytes data. However, engineers were not sure about where it could be used. Rubinstein made a deal with Toshiba which gave Apple exclusive rights to every disk that Toshiba made. iPod required iTunes, which in turn required iMac. This integrated system of computer, hardware, software and device gave Apple commercial advantage. Sale of iPod would automatically drove sale of iMac. Steve decided to shift advertisement money of iMac to iPod. The third benefit of the whole strategy was that iPod ads made the whole Apple brand appear youthful. Initially experts expressed their doubts about iPod success given its high price of \$399. Some even taunted that iPod stood “idiots’ price our devices”. But consumers loved it. It had a beautiful design. It glowed when the user took it out of box. Rest of the other music players looked worthless. Steve’s biography has rightly described, “iPod became the essence of everything Apple was destined to be: poetry connected to engineering, arts and creativity intersecting with technology, design that’s bold and simple.” When Bill Gates met a Newsweek journalist, he showed the iPod to Gates. Gates tried his hand on iPod and said that it was a great product. However, with puzzled looks he asked, “It’s only for Macintosh?”

8. iTunes Store

The users found it see to manage the music they already owned with the seamless connection between iPod and iTunes software. But to have the music on the computer users were required to buy a CD or download the songs online. However, downloading songs online meant illegal file sharing which amounted piracy. Piracy was damaging sales of CDs where 2002 saw a dip of 9% in the sales of CDs. Steve wanted to give iPod users an easy option which was simple, safe, and legal. Steve initially worked with Warner-Sony to offer such solution. However, in January 2002, Sony pulled out of the endeavor. It wanted to retain its own propriety format on account royalties associated with it. Sony started its own efforts along with another music label, Universal for offering a subscription service. Rest of the music labels AOL, Time Warner, Bertelsmann and EMI got together with RealNetworks to producing Music Net. Being rivals, both didn't license its songs to each other, ending up offering only half the music. Both offered only a subscription service which meant users could only stream songs but couldn't store them. The moment the subscription lapsed; the users lost access to songs. More pain for the users was the complicated instructions and difficult interfaces.

Music labels finally turned to Steve for help in coming up with solution. It took lot of tough negotiations and persuasions to arrive at the final deal. Music companies resisted on account of pricing model and unbundling the albums. Steve offered them to sell this new service only on the Macintosh which that time had just 5% of the market. That meant the new idea could be tried without much risk. The low price of 99 cents was intended for the simple and impulsive purchase where Apple and the music company sharing 30% and 70% respectively. Steve knew that people had emotional connect with the music and loved to own their favorite music, rather than just renting them. He believed the pricing model was better than the licensing model which music companies preferred. Although music companies opposed unbundling of the album on the commercial grounds and some musicians objected on the artistic ground. Steve recalled, "Piracy and online downloads had already destructed the album. You couldn't compete with piracy unless you sold the songs individually."

Finally, in April 2003, Steve launched iTunes Store where user could download a song at just 99 cents legally. Steve highlighted benefits of iTunes Store comparing to illegal ways of downloading. He pointed that most of the downloads didn't work and often had poor quality. He said, "Worst of all its stealing. It's best not to mess with karma." He explained the proliferation of such sites saying that the users didn't have any option and subscription services treated users like criminals. He said, "People want to own the music they love." With iTunes Store people could get to see the preview of the song, own their songs, burn them on CDs, got best download quality and could also use with iMovies and iDVDs. It just took one minute to download where some of the service providers like Kazaa took fifteen minutes. Steve refused to license Fairplay (DRM- Digital Rights Management technology) to other device makers; nor did he allow other online stores to sell songs for use on iPods. It became a huge hit crossing all wild expectations. iTunes Store in charge, Eddy Cue predicted to sell one million songs within six months. It just took six days to cross one million songs.

iPod Mini, the first major revision of iPod was launched in January 2004. It was smaller in size to that of a business card. Although it had a less capacity, it had the same price. At one point of time Steve wanted to stop the project. Senior VP of iPod design said, "He doesn't do sports, so he didn't relate to how it would be great on a run or in the gym." Mini turned out to be the real game changer where it eliminated the competition from smaller flash-drive players and created Apple's dominance in the market. Apple market share in the portable music player market went up from 31% to 74% within eighteen months of Mini's launch.

In January 2005, another version iPod Shuffle was introduced. It was even more revolutionary. The shuffle feature of the iPod played the songs in random order. Shuffle took

out trouble of setting up and revising playlist. Having no screen for the iPod Shuffle was Steve's idea. He thought that the users wouldn't need to navigate and the songs would play randomly. After all, the users made their own list of songs. What was required was a button to jump over a song if the user wasn't in the mood listen it. It was something of a curiosity: it had no screen, no Click Wheel and no dock connector. The ad slogan for Shuffle was "Embrace uncertainty." It became instantly popular with joggers and young teens.

As iTunes Store grew in popularity, the side benefit for Apple was that it had database of people who purchased songs online. The customers found the service trustworthy and Apple got email address and credit card information. Apple could sell many other digital things like a magazine subscription. But the information of the buyer stayed with Apple and not the magazine subscriber.

9. iMAC G4

Steve loved distinctive designs and decided to replace iMac, the translucent consumer desktop when the flat screens became available. Initial design which was proposed by Ive, had parts of computers which were fixed to the back of the flat screen. Steve didn't like the design because it made it look like a traditional computer with a bulky back. Steve left for home early to think over the problem. Ive too joined him later. Steve's wife, Laurene had planted garden which had lot of sunflowers. Steve and Ive were moving through the garden, thinking about the possible design. Ive asked Steve, "What if the screen was separated from the base like sunflower?" He was exuberant and started drawing a possible design. Like the sunflower he wanted the flat screen to appear fluid and responsive that it could reach for the sun. It was the design that Apple took patent for as "a computer system having a movable assembly attached to a flat panel display". It looked distinctively different in era which was ruled by pathetic looking huge box size computers. Apple's rivals Dell, HP and Compaq were competing on price by outsourcing manufacturing. Apple looked the only company which kept innovating with its unique designs and pioneering applications like iTunes and iMovie.

Apple in fact was into more profound innovations. Apple was using a microprocessor PowerPC since 1994 which was made in collaboration with IBM and Motorola. However Motorola failed to produce new versions. So, Steve decided to switch Intel. This wasn't an easy task. It was as huge as writing a new operating system. For eighteen months Apple's director board kept thinking. Intel had deals with other computer makers and Steve wanted a better price than they had. Intel was known as a tough partner and it took lot of long walks of Steve and Intel CEO Paul Otellini to reach a deal which was announced in 2005.

Even Bill Gates admired the ability of the new design of switching the CPU in a computer, smoothly and on time. He had earlier didn't feel impressed with colored plastic cases of iMac. But he praised Apple this design, "If you'd said, 'Okay, we're going to change our microprocessor chip, and we're not going to lose a beat,' that sounds impossible. They basically did it."

Ever since Apple II days of making innovative power supply, Steve took great efforts on the engineering and design of such parts. His name is also listed on the patent for the white power brick and magnetic connector of the MacBook. In fact as on Aug 2011, Steve had 313 patents to his name, out which 33 patent filings had Steve's name at the first sport in the list of people who contributed to the invention.

10. iPhone

Before iPhone, Apple had tried its hands in the mobile phone market with Motorola. Steve's idea was to have an iPod in Motorola's popular phone RAZR which also had a digital camera. The new phone was called ROKR. It turned out to be a poor product which was as elegant looking as iPod and also lacked slimness of a RAZR. It proved out to be another failed attempt of Apple of partnership with other company for making of the product. It had everything in itself which Steve was not known for. Steve loved being complete control of every aspect of product; hardware, software and contents. Instead ROKR was produced by Apple and Motorola and had a wireless carrier Cingular. Steve felt immensely frustrated. "I'm sick of dealing with these stupid companies like Motorola. Let's do ourselves." He noticed the same thing about phones which he had noticed with MP3 players before making iPod. Phones those days were clunky. Steve recalled, "We would sit around talking about how much we hated our phones. They were too complicated. They had features nobody could figure out, including the address book. It was just Byzantine." In his meetings with George Riley who was an outside lawyer, Steve often used to get bored. He used to take hold of Riley's phone and used to point all the features which made the phone, in Steve's words 'brain-dead'. So Steve and his team decided to make a phone which they wanted for themselves. Steve later said, "That's the best motivator of all."

It also had a huge business potential. In 2005, the total number of mobile phones sold was more than 825 million. From a kid to senior citizens, everybody was using mobile phones. But most phones lacked simplicity and appeared old fashioned. Steve saw a space for a stylish and superior product, just the way he had seen for fancy portable music-player. His team initially modified iPod design for the phone. They wanted to use trackwheel for scrolling through phone options, so that a keyboard would not be needed for entering the numbers. They found it wasn't suitable.

At the same, a secret project of building a tablet computer was underway at Apple. Steve and his wife had a friend who was working as engineering developing a tablet PC at Microsoft. He gave a party on his birthday where he invited both Steve and Bill Gates. Bill Gates got uncomfortable as the engineer started talking about the tablet PC which he had made at Microsoft. He boasted that the tablet PC software was going to completely change the world, removing the notebook computers and Apple should license his Microsoft software. Steve thought it as a wrong approach as the Microsoft tablet PC had a stylus and Steve never liked stylus. He got more irritated as the engineer kept talking about the PC over dinner. When he got home, he was determined to show Microsoft what a tablet could really be.

The next day Steve called his team at office and expressed his desire of making a tablet PC without a keyboard or a stylus. He wanted users to type by touching the screen with their fingers. That called for a multi-touch screen, ability of a surface to recognize the presence of more than one points of contact. He asked his team whether it could come up with a multi-touch, touch sensitive display. It took six months for the team to come up with a crude, yet workable prototype.

However, Jony Ive gave a different account of how multi-touch was developed. His design team was working on a multi-touch input for the trackpads of Apple's MacBook Pro and they were working on finding out ways to transfer that capability to a computer screen. Ive showed it to Steve in his conference room. Steve loved it and declared, "This is the future." Steve understood that it could be used for creating interface for the proposed cell phone. So, in 2005, he decided to put the project of tablet PC on hold. He knew that if they were successful in making multi-touch phone, it was always possible to go back and use the same technology for the tablet PC. The work of developing phone continued on two tracks; code name P1 was for making phone using iPod trackwheel and P2 was for other way of using a multi-touch screen.

In the same year, Apple acquired a small company FingerWorks along with its all patents and the services of the developers. Use of the multi-touch looked promising but was riskier since it had lot of engineering challenges of making it work. After iPod it was next ‘bet-the-company’ moment, high risk and high reward if it succeeded.

Steve vetoed the idea of having a keyboard which was suggested by couple of members of the team, seeing the popularity of the BlackBerry. Physical keyboard would have meant taking away space of the screen and it would have been less flexible and adaptable compared to a touchscreen keyboard. Finally, they could make a device that displayed a numerical pad when the user wanted to dial a phone number. It popped up a typewriter keyboard when the user wanted to write and different buttons according to the activity selected by the user. All the buttons vanished when the user watched the video. In a smart way, hardware was replaced by software which made the interface appear fluid and flexible. Team also came up with unique solution of preventing the device from playing music or making a call accidentally, when the phone laid in the user’s pocket. Steve disliked having on-off switches, which he considered ‘inelegant’. “Slide to unlock” was a simple slider that brought the device to life when it wasn’t in use. Another significant advancement was a sensor that solved the problem of user’s lobes accidentally activating some functions when the user put the phone to his ear. The icons on the screen were of Steve’ favorite shape: rounded rectangles. The phone also had a big bar to guide the user in putting call on hold or making conference call. The phone also offered an easy way to navigate through email and allowed users to scroll horizontally to get to different apps. Time magazine correctly pointed that Apple hadn’t invented many features but it just made the features easy to use.

After its launch, bloggers called the phone “the Jesus Phone”. Apple’s competitors expressed their doubt about its success given its high price of \$500. In an interview given to CNBC, Microsoft CEO Steve Ballmer said, “It’s the most expensive phone in the world and it doesn’t appeal to business customers because it doesn’t have a keyboard.” Once again Microsoft caught itself on the wrong foot. Apple sold ninety million iPhones by the end of 2010, and procured more than half of the total profits of the global cell phone market.

11. iPad

In May 2003 in an interview given to Walt Mossberg Steve had announced, “We have no plans to make a tablet. Tablets appeal to rich guys with plenty of other PCs and devices already.” But truth was the tablet was discussed as a future project in annual Top 100 retreats. Phil Schiller recalled, “We showed the idea off at many of these retreats, because Steve never lost his desire to do a tablet.”

The tablet project got further push in 2007 when Steve was mulling over an idea of making low-cost network computer. In one of the top staff meetings of Monday, I’ve suggested putting keyboard on the screen using a multi-touch interface; rather than using an expensive and bulky keyboard attached to the screen. So rather than designing a notebook, the resources were directed at reviving tablet project.

As early as in 2004, Apple had filed for patent along with an application carrying drawings of a rectangular electronic tablet with rounded edges casually held by a man in his left hand while using his right index finger to touch the screen. The patent was issued after fourteen months. Steve and I’ve were listed as inventors. This was exactly what iPad turned out to be when it was introduced in January 2010.

After its release iPad too became a huge market hit, selling one million iPads in less than a month surpassing the success of iPhone which had taken almost twice the time to reach the target of one million. It turned out to be the most successful consumer product launch in the

history. The question “What’s on your iPad?” replaced “What’s on your iPod?” Even President Obama’s staffers carried the iPad to show their tech savviness.

Different stories of iPad success started appearing. But Steve was particularly moved by a story that appeared on Forbes.com, written by Michael Noer. Noer had been to a dairy farm in rural area in Columbia, reading a science fiction novel on his iPad. A poor six-year kid who cleaned stables came to him. Out of curiosity, Noer handed him the iPad. The kid hadn’t seen a computer in his life, but he started using it intuitively. He started swiping the screen, using applications, playing games. Noer wrote, “Steve Jobs has designed a powerful computer than an illiterate six-year-old can use without instructions. If that isn’t magical, I don’t know what it is.”

12. APP STORE

iPad success was partly due to its beautiful design and simplicity of use. But it also became popular due to various applications, called as apps that allow users many entertaining activities. As the popularity of iPad grew, hundreds of thousands of applications became available for downloading. Some apps were free for downloading, some charged few dollars. It also proved to be a good platform to the outside developers who wanted to create software. However, Apple kept control over the kind of applications those were allowed in App Store. The App Store for the iPhone opened in July 2008 and it just took nine months to reach one billion downloads. Although the apps worked on the iPad, they failed to take benefit of the big screen of the iPad. The number of applications written for both the devices reached 500,000 in July 2011 and the number of downloads from the App Store crossed fifteen billion.

The App Store gave rise to another industry of writing apps. Hobbyists as well as professionals at the major media companies invented new apps. One of the venture capital firms came up with idea of offering iFunds of \$200 million for financing best ideas. Magazines and newspapers also saw a new business idea of charging money for their contents which earlier they were giving free. Publishers offered new magazines, books and learning materials for the iPad. Apple paid \$2.5 billion to app developers by June 2011.

With iPad digital world saw a fundamental shift. 1980 saw the first phase, where the users while going online dialed into a service like AOL that charged fees to access their contents; plus allowing access the Internet at large. 1990 saw the second phase, with the emergence of browsers enabling access to internet freely using World Wide Web, a system of interlinked billions of hypertext documents. Search engines enabled users to find websites. The introduction of the iPad saw the third phase where creators of the apps charged some fees in return of giving functional or service utility to the people who downloaded them.

However, publishers reacted cautiously. Their main cause of concern wasn’t 30% what Apple was going to charge them of their revenue. But the subscriber details which Apple was going to own. The business model Steve had proposed, gave Apple all the customer information like his email and credit card number which would have Apple at an advantageous position to further its own business cause. Apple’s stringent privacy policy meant that it wouldn’t share the subscriber information with the publisher unless the subscriber had explicitly permitted for doing so.

When one of the Times circulation executives demanded to have all the subscriber information, Steve refused to part away with the information. The executive found it unbelievable that the Times wouldn’t have information of its own subscriber. Steve had his own reason. He told the executive that the Times was giving its paper online for free for five years but didn’t make effort to collect readers’ credit card information. Almost a year later in April 2011, Times started charging for its digital edition and selling subscription through App Store

under the condition that Steve had set. However as against Steve's suggestion of \$5 a month, Times charged approximately four times more.

Some of the other magazines like Time Inc. refused to abide by Apple policies of not sharing subscriber information. They submitted their apps that directed readers to their own website to buy subscription. Their apps were rejected by Apple for the App Store.

Steve started thinking over iPad 2 even before the original iPad went on sale. He wanted iPad 2 to have front and back cameras and be thinner. But his focus was on making something which most of the other CEOs wouldn't have cared about. He saw that the cases people used for iPad, hid the beautiful lines of the iPad and made the screen look unattractive. The iPad appeared fatter due to the case. The elegant device called for a stylish carry case to make it appear aesthetic in all the aspects. Steve gave an article to Jony Ive which was about magnets. One of members of in Ive's team succeeded in making a detachable cover that magnetically attached to the face of the iPad. The cover had three folds which allowed it to convert into a stand, which was also held together by magnets. It was minimal, easily detachable, and protected only the screen. It had a microfiber bottom that cleaned the front of the iPad, and woke up the iPad when the cover was removed. It was one step further in Steve's desire for end-to-end integration. The iPad and the cover were designed together resulting in the magnets and the hinge connecting seamlessly. The iPad 2 had many improvements over the first-generation iPad, but the amazing cover case added icing on the cake.

The original iPad was criticized for being only for consuming content and not for creating it. Steve talked about it at the launch of iPad 2. Apple developed powerful versions of its Macintosh applications, GarageBand and iMovie for the iPad. Using iPad users could compose songs, add special effects to home videos, and post or share such creations.

Thousands of people stood in the long lines outside Apple Stores across America to buy iPad when it was introduced on April 3, 2010. Many were in the line since the night to be one of the first to buy a new iPad. Some of the early buyers were Apple cofounder Steve Wozniak. He had arrived at the store on 2nd April at six o'clock in the morning. He purchased two iPads for his in-laws. He said, "They're not ready for the complicated computer world. They have these old computers. But the iPad simplifies things. It's like a restart. We all say we want to be simpler. All of a sudden we have this simple thing." Wozniak was of the opinion that iPad would appeal to those who found traditional computer difficult to use and he was right.

13. iCloud

In 2000 Apple launched iTools, a free collection of Internet-based services. In 2002 it was relaunched as. Mac. In 2008, Apple relaunched the service again as MobileMe. Rather than a personal computer, Steve wanted to make 'the Cloud' hub for the contents storing and sharing. MobileMe was subscription service, \$99 per year which allowed the users to store pictures, videos, documents, address book, calendar, emails remotely in the cloud and sync them with any device. However, the service had many problems. The devices couldn't sync properly and the data got lost randomly in the ether.

However, Steve kept thinking on the concept and gradually developed a new strategy about the cloud. By 2010, every tech company including Google, Amazon, Microsoft were aiming for offering cloud services. So, Steve decided to speed his efforts. Talking to his biographer Steve explained, over the next few years, the hub is going to move from your computer into the cloud. So, it's the same digital hub strategy, but the hub's in a different place. It means you will always have access to your content and you won't have to sync. I'm going to take MobileMe and make it free. We are building a server farm in North California." When he presented his strategy to board members, some of them including Al Gore had their reservations about offering service free of cost. But later they supported the decision since the strategy would have

meant attracting and locking customers for the next decade. The service was named as ‘iCloud’ and on June 6, 2011 during the keynote address at Worldwide Developers Conference Steve made the announcement.

At the conference he gave a demo. He showed how hard it was to sync content to each of the device. He compared plugging USB in and out to that of old-fashioned switchboard operator and offered his solution, “We are going to demote the PC and the Mac to be just a device and we are going to move the digital hub into the cloud.” Mail contacts, calendar entries, apps, photos, documents, books, everything synced instantly. Steve had already made deals with the music companies which made iCloud have eighteen million songs, irrespective of the fact whether they were legally purchased by the user or pirated. Apple allowed access to a high-quality of it on all the devices without uploading it to the cloud. It gave Apple another competitive advantage. Microsoft had advertised about the “Cloud Power” and almost three earlier back its chief software architect, Ray Ozzie, tried to draw company’s attention to it. By the end of 2010 Ozzie left Microsoft and Microsoft didn’t move anywhere in offering cloud services. Amazon and Google did start offering cloud services in 2011, but their major impediment was integrating hardware, software and content of different devices. Apple had tight control over every link in chain and it all worked smoothly. The only compulsion for the user was sticking with Apple devices. iCloud didn’t work with Kindle or Android devices. The vertical integration was possible due to Steve’s strong belief in ‘closed’ or what he called ‘integrated’ approach.

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