An Official Evaluation of Macintosh Operating System and Windows Operating System

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Introduction

SECTION 1

"I think it's fair to say that personal computers have become the most empowering tool we've ever created." -Bill Gates

A Brief History of Computers

In 1946, the Electronic Numerical Integrator And Computer (ENIAC) was introduced as the first computer. Unlike today's computers, it was bulky, took up the space of several rooms, and was not much faster than today's cellphones. The components of the computer were equally gigantic. A floppy disk required four people to hold.

Since then, computers have gone from the size of buildings to the palm of a hand in less than sixty years. Two major companies have emerged in the computing industry: Microsoft, founded by Bill Gates; and Apple, founded by Steve Jobs and Steve Wozinak. Microsoft first introduced DOS, a text-based operating system. Computers stayed text-based until Steve Jobs and Steve Wozinak released the Apple II. The major innovation in this computer was a Graphical User Interface (GUI) consisting of icons and a mouse. This made computers much simpler to use. From Windows 3.1 to Windows Vista, from Mac OS 1.0 to Mac OS X "Leopard", a wealth of new technologies has been developed and implemented into each operating system, making them faster than ever before.

Straight from their conception, people knew that these operating systems would relentlessly compete for users. Today, the battle between Windows and Mac still rages. Windows users argue that Macs aren't used so much and that their interface is too complicated, while Mac fan-boys state that Windows is prone to viruses and crashing. Among the majority, it is still unclear which operating system is better.

My Standpoint

The first time I used a computer was back in the 1990s when the Internet was still a baby. I was introduced to Windows 98. I was amazed at a machine that could calculate numbers and display graphics almost "magically" through a long cathode ray tube.

I stuck with Windows for years until I met a few technically-inclined friends at school. They asked me: "What operating system do you use?" I replied: "Windows." Their faces wretched and cringed and for the next thirty minutes or so, they started battering me with reasons to switch to a Mac. At the same time, my old laptop PC was acting up and I was getting frustrated, so finally, my dad decided to get a Mac Mini from his office.

When he brought the Mac Mini home and I turned it on, I was quite impressed by its clean look and shiny silver. The computer was a small six-by-six inch square box with a slot in the front for CDs, a tiny LCD on/off light below the CD slot and a retinue of ports in the back. This contrasted sharply with the appearance of my PC.

After a few days of using my Mac Mini, I knew it was better than my PC in every way. It could do things that my PC couldn't. It had cool programs that my PC didn't. It appealed to my eye way more than my PC did. I found everything about it perfect. No viruses, no crashing, no nonsense for two whole years.

I met a few new friends two years after I fell in love with my Mac. The same thing happened again: They asked me: "What operating system do you use?" I replied: "Mac OS". Their faces, too, wretched and for the next ten minutes at my lunch table, they told me all the reasons why Macs suck. One of them which startled me was: "Leopard was a bigger failure than Windows Vista". Some of the reasons were just shocking. At first, I didn't believe them, but then, more people started convincing me. Even a Wikipedia user wrote to me, on my talk page:

"Sure, their OS of choice might not have bug 1, 2 and 3 that Windows does, but at the end of the day, Windows remains the most productive OS on the market. If you know how to use it properly, you [w]on't have all the issues you always read about, but the problem is, there aren't 'Regular Consumer Linux Users' on a large scale yet, and even Macs can't claim anywhere near the user-base of Windows. Let's think about this. Let's assume ten Mac exploits are found in a year. Now let's assume ten thousand Windows exploits are found in that same year. If you convert those numbers to actual success

RATES OF 'MALICIOUS USER LOOKING TO EXPLOIT THE SYSTEM' VS 'EXPLOITS FOUND', YOU'LL FIND THAT MAC HAS A MUCH HIGHER 'TRY/SUCCEED' RATIO FOR FINDING EXPLOITS THAN WINDOWS [DOES]. AT A RECENT FORUM, UBUNTU, MAC, AND VISTA WERE ALL PUT TO THE TEST OF SOME OF THE WORLD'S MORE SKILLED HACKERS TO FIND A WAY INTO AN UP-TO-DATE SYSTEM. THE MAC BOX LASTED A LITTLE OVER TEN MINUTES. THE WINDOWS BOX HADN'T BEEN CRACKED BY THE TIME THE EXERCISE WAS OVER."

Another user wrote, in reply:

"Macs are pretty, like flowers. Windows is functional, like a set of cutters. Treat the cutters poorly, and they'll rust and go blunt. Treat them [the cutters] well, and they'll cut the head off your flowers any day. [It] doesn't matter how you treat the flowers though; they're going to die eventually."

These two comments changed my opinion on which operating system was better. I looked back at how much I really liked my Mac but I realized that I only liked it because it was much prettier than my PC. My Mac did have problems from time to time like freezing and programs behaving slowly or erratically.

One day, my opinion finally changed back when I was looking for software that could extract audio out of a video. All of the software that I found either cost money or came in annoying .pkg formats, which required admin permission to install. I tried iMovie to extract the audio, which produced error messages and ended up doing nothing after thirty minutes of trying. The next day, I had a big project at school and discovered that my Word document that I created on Microsoft Office 2004 on my Mac was formatted all wrong. I had reached the conclusion that Macs were incompatible with Windows, and that they intentionally screw up the formatting for Windows users just to annoy Windows users. I had had enough of my Mac. From then on, I was a fervent Mac opposer and Windows supporter.

My standpoint was: Macs may be great for editing photos, movies, and video; but for the business world, Windows is the hands-down winner. There aren't many good applications for Macs that are free, Macs are out of date with their hardware, and hardly anyone uses a Mac or has ever heard of such an operating system.

My friend, hearing of this, tried to change my viewpoint by hammering me with all the reasons why he thought Macs were better. He said: "They're faster". I replied: "Then how come mine is

so slow?" He rebutted that my Mac was old. I said: "My PC is even older and yet it could run as fast as my Mac can." This static argument went on for months until my friend decided to bring his MacBook to school to prove his point. I took three hours of my time that day to evaluate his MacBook's performance and the latest release of Windows: Windows 7, as well.

This report will detail the results of the evaluation and present readers with a final conclusion on which is the superior operating system: Macintosh or Windows.

The Evaluation

SECTION 2

"Our belief was that if we kept putting great products in front of customers, they would continue to open their wallets." -Steve Jobs

About the Evaluation

To convince me that Macs were superior to Windows, my friend brought his MacBook to school on the penultimate day of school. I had over three hours to test all the features that his Mac had, including a release candidate of Windows 7.

My friend claimed that Windows 7 had the worst interface of all operating systems. I wanted to see if his claim was true. I had already seen some of his YouTube videos highlighting main reasons why a Mac was so fast and could do anything, and I wanted to make sure that he wasn't getting these videos from someone else or just making them up.

Testing

Startup

The first phase of testing began with logging in to the computer. To my amazement, it was accomplished in less than ten seconds even with about fifty items on the Dock and several icons on the desktop. With my Mac, it took about thirty seconds to load up the desktop completely.

Windows 7

To confirm my friend's claims about how bad Windows 7 was, he started it up for me to evaluate. It took about 2 minutes to start up, but only because it was running on VMWare Fusion which was running Vista which in turn ran Windows 7, parallel to Mac. Thus, the entirety of Windows 7 ran slowly because the process was nested in other nested processes. It had the same errors such as parts of windows suspended in mid-air after they are closed. But I believe this was all due to Windows 7 running parallel with Mac OS, because Mac OS ran slowly too.

The interface in Windows 7 is strikingly similar to Windows Vista. One of the first things users will notice is that the task bar at the bottom is much larger. The quick launch items are even larger than the start icon, but that's because they expand into windows when opened. In my opinion, this was not a good idea.

The Control Panel was also confusing, but it could be simplified by clicking "Classic View", which made it more or less comparable to Mac's System Preferences.

The last thing I explored on Windows 7 was Paint. I liked the interface better, because here, Microsoft applied its Office interface to Paint, and added new features. Mac OS does not have a Paint-like program, instead, users have to download one.

Opening Applications

Almost all of the applications opened up in less than ten seconds, except for Adobe Photoshop since it takes a while to open up on any given computer. Firefox loaded in 9 seconds. Paintbrush loaded in 5. On my Mac, Firefox takes at least 30 seconds to load, but loading time gets faster the more times the application is loaded.

Application Performance

In general, the applications running on my friend's MacBook ran at a speed that most computer users expect them to run. That is, they ran pretty fast, much faster than my Mac could ever achieve. In addition, all of the applications ran flawlessly, even Photoshop. The applications I tested for performance were Photoshop, Paintbrush, Halo (a game), Chess, Firefox, among many others.

JavaScript

In Firefox, I tested the JavaScript performance which is related to the computer's processor's ability. I tested it using a game called Powder (http://dan-ball.jp/en/javagame/dust). The game ran flawlessly. I also took Firefox through the Dromaeo browser performance test (http://dromaeo.com/) which gave good marks.

Mac OS Overall

The whole operating system was great. I didn't get so frustrated with it like I did with my Mac and my PC. Switching windows didn't take an eternity as it did on my Mac. The MacBook didn't crash like my retiring PC, save for three times when a few applications crashed unexpectedly. Overall, the operating system was flawless in performance and speed. However, it wasn't designed to support processor-intensive applications such as VMWare fusion, but everything else, even Photoshop, ran just fine.

The Specs

My friend's MacBook had what he called "average specs", 2GB of SDRAM, 2.oGHz Intel Processor, and an NVIDA graphics card. The battery life was somewhere in the range of two-and-a-half hours. I didn't take time to check all the specs, but my friend pointed out that Mac OS doesn't need high specs to run natively as Windows Vista does (2GB RAM vs 4GB RAM, respectively, he stated). He also brought his MacBook's charger to show me, which looked very blank yet fancy. It was a MagSafe charger. The main difference from other chargers was the MagSafe charger would magnetically hook up to the charger port instead of the user having to force it in. Once in, the MagSafe charger head can swivel about the port without being disconnected.

The Looks

When my friend first took out his MacBook, it looked like a piece of plastic because the cover reflected lots of light. After opening the cover, I saw the keyboard, which had nice, white, rounded-square keys that appeared to be bigger than usual. I could see the influence of minimalism on Apple, since everything was white and silver and fitting together nicely. Windows computers looked cool, but not "Apple Cool" (not to say that Windows computers are bad). Apple's computers are minimalistic, while PCs are modernistic, I concluded.

The Interface

Just as the computer body reflected minimalism, so did the user interface. I had already become accustomed to the Mac interface, so it was nothing new to me. My friend did manage to convince me that the System Preferences on Mac OS was simpler than Windows Vista and 7's Control Panel, but the Control Panel can still be simplified by using Classic View.

I tested new features like Quick Look. Yes, some new features were awesome, but others were just to look pretty.

What about Windows?

SECTION 3

"Microsoft is not about greed. It's about innovation and fairness." -Bill Gates

Macs are great. They can handle a wide spectrum of tasks and applications. They have great flawless and fast performance speeds, and for some users, the most important thing is that Macs are so pretty. But what does this mean?

First of all, it has changed my perspective. I used to think that Macs were a complete failure, but now I know that Macs can be as good as PCs too. Some PCs aren't that great either, but most PCs I've tried are on network servers or are years old. I have to admit, my Mac is at least three years old, running Mac OS 10.4 "Tiger" on 512MB of RAM and a 1.25GHz PowerPC processor. My PC runs Windows XP Service Pack 2 on 256MB of RAM and a 1.25GHz processor. My PC is far worse off.

However, this evaluation only compared a few computers. On a global scale, the perspective changes. There are approximately 142 million Mac users versus 1.35 billion Windows users. Put in perspective, Mac OS has approximately 9% market share while Windows has about 90%. The remaining 1% or so belongs to other operating systems such as Linux and Solaris. It is not fair to compare Macs and Windows on a global scale, since the user counts for each operating system are unequal. Macintosh fan-boys love to take advantage of this inequality. They constantly state that hackers create thousands of viruses for Windows every day. Why not Macs? One needs to understand the intention of these hackers. They intend to make money and gain recognition. Since Windows has a larger user-base, of course it will be hacked more. Macs are actually attacked occasionally by viruses, contrary to the belief of some Mac users. Yet, if Macs and Windows had split 50% market share, it is safe to say that hackers would exploit both systems equally. Right now, Macs don't have those issues. It may seem like an advantage to have a lower market share, but one of the disadvantages is that many more programs are available for Windows than for Mac. There are more Windows developers than Mac developers. Furthermore, since there

are more Windows users, Microsoft can receive more user input and improve their operating system based on comments from Windows users. Microsoft does this by allowing the public to beta-test future operating systems. Apple doesn't have such public beta-testing to gather information.

Mac fan-boys also proudly state that Macs don't have errors. This is based on what they have heard from Windows users, and partly, what they haven't heard from Mac users, but a search through the web will reveal the world of Mac users that experience errors as well as crashes too. Picture this scenario: in a small community, 100 people own a computer. 90 of them are likely to be Windows users and 9 of them Mac users. Now assume one of the Mac users gets constant errors and that ten of the Windows users also get constant errors. The conclusion is that there are more Windows errors than Mac errors. This is true, but the error *rates* are exactly the same, both at 11.1%. These statistics may not be true, but just because the average person hears more talk of Windows errors, it does not mean that all Windows computers are erroneous. This applies for Macs too; the average person, hearing no talk of Mac errors, assumes Macs are error-free. I have actually met a computer user that despises Macs because of constant errors, but boasts that his Windows computer has never had any problems. It is safe to say that if one goes computer shopping, his chances of getting a "bad Mac" or a "bad PC" are the same.

Windows users argue that although Macs have a better interface, less viruses, less crashing, Windows still has many more users and is used more extensively than Mac OS for business. That doesn't mean Macs suck. As Steve Jobs once said: "Apple's market share is bigger than BMW's or Mercedes's or Porsche's in the automotive market. What's wrong with being BMW or Mercedes?" Nothing. One reason why Apple's market share is comparatively low is because the prices they charge for the MacBook, Mac Pro or the Mac Mini is higher than the average price charged by big retailers such as Dell and Toshiba. But isn't charging high prices the way all businesses start? Apple is still a relatively small business compared to Microsoft, but Apple has been lowering prices on computers as they've grown. It is actually quite necessary to charge higher prices in order to develop better software and hardware that leads to lower prices. As Apple lowers their prices more and more, their computers will become more affordable and Apple may gain much more market share.

Conclusion

EPILOGUE

Macs have been stereotyped to be perfect computers, while Windows computers have been given the "bad OS" label. This happened because the average person heard only of Windows errors and began spreading the word. But when one delves deeply into the two operating systems, the stereotype labels break down.

It is not fair to compare Apple and Microsoft as-is. However, comparing a scaled-up version of Apple to a scaled-down version of Microsoft is not completely accurate either. As said before, Macs have less problems because they have less users, and for Windows, vice versa. When the two operating systems are compared as a whole, Macs may be better in some aspects, Windows may be the winner at others, but in the end, it is hard to say which is better.

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