Brian Frantz Mr. ------Rhetoric Major Paper 4/8/03

The Benefits of Proprietary Hardware in the Case of the Macintosh

In our technology-driven age, a plethora of computer companies approach us from every direction – begging our attention, seeking our business, and wanting our money. The majority of these companies sell products that can be placed into one of two primary categories: Macintosh or Windows PC. The customer has a difficult decision to make, for each type has benefits over the other. In the case of the PC, the consumer benefits primarily because of greater flexibility. Consumers can choose from any number of third party manufacturers for the computers themselves, for their peripherals (external accessories), and for the software that they run. For example, someone could buy a nice, feature-laden keyboard by Logitech for around \$50, or they could purchase a generic keyboard by some unknown company in China for \$10. Within each category of peripheral there is an incredible selection of many different models by many different brands. Most work relatively well. However, there is a drawback. The Windows PC, while compatible with a vast amount of hardware and software, suffers from a lack of stability. This is where the simple beauty of Macintosh is most apparent.

Simply put, the Macintosh Company is prudent. They limit options in order to achieve a greater benefit: stability. Stability, to Macintosh, is not something worth giving up merely for more choices, most of which are of minimal importance. Unlike with PCs with blue screens of death, illegal operations, and random, untimely freeze-ups, Macs are more reliable, reducing stress, frustration, and confusion. A person's life is supposed to be made easier by the computer, not more stressful. Macintosh advertise exploits this benefit by showing everyday

¹ Here PCs are linked to stress – something many people fully understand and hate. In a way, this is an enthymeme. PCs cause stress. (Stress is something I don't want). Therefore, a PC is something I don't want. The listener can decide for himself that he doesn't want a PC, without the speaker telling him directly (more persuasive.)

people "switching over" to the Mac because they are tired of dealing with their unstable PCs. Consumers have had enough of their PC's instability and are willing to give up the marginal benefit of more options in order to be rid of the problem.²

The reason for the Mac's greater stability hinges on two major differences between the Mac and the PC. One of these differences is in their operating systems (OS). An operating system is the program that mediates between all the parts of a computer. This program allows the software to communicate with the hardware and gives one access to everything on the hard drive. Put simply, the Mac OS is smarter and simpler than Windows. Based on the legendary and time-tested Unix OS, Mac's OS X is the latest incarnation of Macintosh's line of operating systems. Improving upon the user-friendliness for which the older versions of Mac OS were known, and basing it on an OS that is used to serve websites because of its stability (Unix), Mac OS X is the most user-friendly and stable OS to date. In contrast, Microsoft Windows, the OS running on most PCs, is more difficult to learn and significantly less stable. Not only must Windows users be accustomed to random and unexplainable lock-ups, they are also generally in the habit of crossing their fingers and praying every time they attempt to install a new piece of hardware, especially something significant such as a new or additional hard disk. However, this unpredictability of Windows is not simply due to poorer program design. The reason that the Mac's OS is stable, and Windows is not, is the result of another significant difference between Mac and PC.

This difference is hardware. A Mac is stable in part because its hardware is proprietary. What this means is that the physical components are made specifically to work with the Mac, and the Mac is made to work with them, just like a video game console. With a Macintosh, each computer is built by Macintosh and is made up of practically the same hardware. Because of this

² Ad populum argument. While a fallacy in logic, this is a viable (and effective) way to persuade. Basically, it is saying "everybody's doing it, so you should too!"

predictable aspect of Macintosh computers, hardware designers know what their products will be running on and can design each to run very well on that type of computer. In contrast, nearly every PC is different, so the device has to be engineered to operate on many different machines comprised of many different physical components. Because of this variation between different PCs, the product must be generic and compatible with countless systems. The result of this is hardware that is more difficult for the OS to integrate with the software. In other words, the OS must take more steps in order to use the hardware and often requires unreliable driver installations which negatively affect the user's experience. This is why companies such as Macintosh choose to keep their hardware proprietary.

This quality of the Mac affects many areas of computer performance and, therefore, user satisfaction. Systems with proprietary components are simply easier to use. One category of hardware is peripherals (mice, keyboards, printers, etc.). If consumers went to a computer store such as Fry's Electronics, they would be inundated by brand after brand of every style, size, and color of each of these. All are *supposed* to work on a PC, that is, if you can successfully install the drivers. Windows attempts to know how to work with each of these types of hardware, but that is a difficult, never mind reliable, prospect. The result is usually that the consumer has to install the driver, maybe download a newer version if the included one does not run on their computer, and then hope Windows "sees" and operates the component properly. With a Mac, on the other hand, the selection is more modest. But modesty does not mean crippling limitation. A limited selection of hardware would lack options and functionality. This is not the case with the Mac. In fact, some of Microsoft's own mice run on the Mac. Users get all the options they need, without having to sift through the many different brands that are all essentially the same. And these options are working ones that won't send them to the end of a long line at a return counter. Thus, they don't have to waste so much time shopping, and they know that what they buy is high

quality (because the cheap brands are generally made for PC), and that the product will work when plugged in.³ In most cases, the user won't even have to install a single driver. Mac's OS will recognize the peripheral when connected, and the hardware will work right then and there. No problems, no worries, no hassle.

The benefits of proprietary hardware are not limited to external peripherals, however. CPUs, motherboards, video and sound cards, modems, etc. must all be recognized and supported by the operating system. Unlike Microsoft, Macintosh has its own of all of these, so the company does not have to support every brand of hardware in existence. Rather, Macintosh concentrates on a specific list of products in order to make them work stably, quickly, and reliably. Macintosh's selection of hardware is tailor-made to work together, not only with each other but also with the OS and the user. The components connect intuitively and the OS is precognizant about how to run them, so the task of upgrading one's computer is virtually hasslefree for even the beginning user. Simply plug in the new hardware, start up the computer, and never bother with it again. No compatibility issues, no "driver not found" errors, no online driver searches, no know-it-all techie to have to deal with, just plug and play.

It is also important to understand why these features of the Macintosh result in greater performance.⁴ The operating system of the computer is not only responsible for installing and running programs. The keyboard, mouse, hard drive, CD burner, video card, sound card, central processing unit, memory – these are also controlled and monitored by the operating system. The speed of the computer relies on many factors, but not the least of these is how fast and efficiently the OS works. That is one of the primary problems with the PC: Windows is inefficient. To a certain extent, this inefficiency is the fault of the OS itself. However, this is not completely true.

³ Here are a couple results of not having proprietary hardware. By knowing what'll happen if you *don't* get a Mac, you can be convinced *to* buy a Mac as, if nothing else, a lesser of two evils (whether or not it is true, it is effective).

⁴ Aristotle's topic #2

Windows, to reiterate, simply tries to do too much. It is supposed to work with nearly every piece of available hardware, and therefore must be distributed with a ridiculous list of drivers, a list which doesn't even cover the majority of the products that are available. Then, if and when the drivers are successfully installed, Windows has to run them. Working with hardware for which it wasn't designed, relying on third-party drivers to communicate with the peripherals, being held back by the various extra steps the OS has to take to use them – these problems all result in a slower, less stable experience.

Quality is another reason that Macs are stable. Macintosh has control over the production of the parts that go into their computers. In the case of a PC, there are dozens, even hundreds of companies that will build a computer for the consumer. There are also dozens and sometimes hundreds of companies which make the components that comprise the computer. While there are certainly both "high end" and "low end" brands of PC hardware, when someone buys a PC – even a brand name one – there are likely low-quality parts inside. In some areas this is not a problem. Anyone can make a power cable or computer case. But, when the case fans are noisy and unreliable, the motherboard lacks any online support, the video card is made by some unknown brand in Hong Kong, and the mouse that came with the PC ceases to function in a month, the consumer starts regretting the fact that there really is no guarantee that their computer is made of high quality products. The point is that nobody in the PC realm makes PCs out of their own parts. They just assemble them from various parts made by different brands. As Walter Mossberg of the Wall Street Journal wrote in his article "Apple Beckons Windows Users, But Doesn't Make Sense for All," one reason to switch to a Mac is if one prefers to have "[...] a carefully designed machine over a commodity box, or tight integration between software and hardware instead of a generic operating system crammed into a generic PC." Generally whenever someone buys a pre-built consumer-oriented PC, the parts inside are generic and the

whole computer is designed with little care. The computer has merely been built to run – not necessarily very well or for very long. In the case of a Mac, Macintosh itself designs and builds the machines. When the consumer brings home an elegant new iMac, they can be certain that not only will it be reliable and stable from a software standpoint, but the parts inside will last a long time. Until recently, my grandmother had owned an early generation Macintosh computer from the late 80's. In the many years that she had it, the Mac always worked perfectly. When she did finally get rid of her computer, the reason was that she needed a more modern one with email and internet capabilities, not because her old machine had ceased to work. In fact, she regrets giving up her "trusty Mac" even now, for she has had to endure the frustration of learning how to use Windows on her new PC and deal with its inconsistencies.⁵

There are many reasons to choose a Macintosh over a PC. Most of these reasons are the result of a difference in philosophy. Macintosh is willing to sacrifice store aisles of different peripheral brands and variations in order to achieve a significant benefit – stability. Macintosh is willing to forfeit letting other computer manufacturers custom-build computers in order to manage the process themselves, ensuring maximum quality and reliability. Finally, Macintosh is willing to seem stubborn by adhering to these policies in order to sell computers known for their stability, reliability, quality, and general user-friendliness. PCs might have more options and give you the opportunity to buy that super special keyboard with thirty-two customizable hotkeys, but Macintosh realizes that most consumers just want a simple-to-use computer that works…every time. This is why so many people, such as those in the Macintosh commercials, are finally "switching over" from the PC to the Mac. Many of these people are professionals who have tried using the PC for their work and decided that the Mac is better. Others are

⁵ Here is an example of Aristotle's fifth topic – that of example. My grandmother isn't an "authority" on computers (topic 10), but she is an example of an everyday person who found the Mac easy to use.

⁶ This is similar to Aristotle's "ad humanitatem" argument. It shows that it is not just the amateurs or the non-technical people who prefer Mac, but also the intelligent professionals. Also, topic #10 of *Topoi*.

average users with basic computer needs, who simply want an easy-to-use computer that works consistently. With a smart philosophy that places the focus on quality of the computer over quantity of options, what was once the reason *to not* own a Mac is now becoming the primary reason *to* own one. Consumers are realizing that the massive list of options available for the PC is not worth the sacrifice of stability.