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Linux and File Systems

Linux is an open-source operating system while Windows is not. Windows is great for the average user because of its easy-to-use graphical interface (Ashtari). On the other hand, Linux scores higher on security from viruses and greater reliability resulting in fewer system crashes (Ashtari). In addition to Linux being open-source, it’s also completely free to install and use (Ashtari). For Windows, if you buy a pre-built PC or laptop, as I have, the cost of Windows is included in the device's price meaning you just need to activate Windows. However, if you build your own PC, as I have also done, you can install Windows for free, but it wouldn’t be the full, activated version. For that, you need to pay money. Overall, Windows is a very intuitive OS while Linux is a freer and more flexible OS (Ashtari).

A file system is a mechanism of an operating system for properly storing and organizing data/files (Spasojevic). It’s also responsible for functions such as moving, deleting, and altering files (Spasojevic). Information about stored files is also managed by the file system like the size, date of creation or modification, and type (Spasojevic).

The basic mechanism on which a file system works is by separating free space the the computer’s drive into smaller sections (Spasojevic). Then, when a file is saved to the drive, the

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file system decides which section/unit to put the file into (Spasojevic). This organization allows the computer to easily access and execute files (Spasojevic).

The most used file system is ext4 and is included with most installations of Linux (Knight). ext4 is a reliable file system that has stood the test of time (Knight). The strength of this file system is that it keeps track of the location and dates of creation/modification of files. It’s a journaled file system (Knight). Another recommended system is Btrfs (Knight). The interesting feature of Btrfs is that before a modification is made to a file, a copy is made to another location in case if something goes wrong with the edit to the file (Knight). This helps tremendously with preventing file corruption (Knight). Btrfs also has some other corruption prevention features (Knight).

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Works Cited

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