

A case study of Windows 11 operating system for inexperienced users

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ABSTRACT: The researcher wants to know the effect of using windows 11 to the selected student of Mindoro State University in Bongabong Campus. The use of the Windows 11 Operating System (OS) in the students is well known, but there has been little research to address the usability and performance of this System due to differences between Windows 10 and Windows 11. Furthermore, because the Windows open-source system studies student students' ability to navigate and learn the different features of systems, the students will be aware of the effectiveness of the Windows 11 Operating System. To know the effect of using windows 11 to the students we asked for observers to observe them. We gather that the student ever to use Windows 11 because of its design. They like Windows 11 because it offers an interface that is more like Mac with p color, or like an aesthetic and with a cleaner interface than its predecessor. Students agreed updating from Windows 10 into Windows 11 is worth it. Window 11 helps the students to have a better control, unleash their creativity, and to improve their reading and writing. Students can also enjoy using windows 11 there will be no cost with the Windows Student Use Benefit program. It also provides education-specific default settings. It has been concluded that Windows 11 has been effective and continues development.

KEYWORDS: Windows OS update; compatibility; new features; novice users

1. Introduction

The latest iteration of the Windows operating system, Windows 11, was officially released on June 24, 2021. This update was meticulously crafted to enhance touch-friendliness and integrate seamlessly with cutting-edge hardware features such as touchscreens and foldable devices. Windows 11 brings forth a slew of innovative elements, including a revamped Start menu, a fresh taskbar, and the introduction of Microsoft Fluent Design—a new design framework aimed at elevating the overall user experience. The primary goal of Windows 11 is to offer a contemporary, simplified, and intuitive experience across a diverse range of devices, encompassing desktops, laptops, tablets, and 2-in-1s. The new design system not only prioritizes aesthetic appeal but also ensures uniformity among all applications. The redesigned Start menu and taskbar are specifically crafted to facilitate easier navigation. Additionally, Windows 11 is expected to deliver improved performance, enhanced security, and compatibility with a broader array of hardware and software. However, adapting to the new interface can pose challenges for users unfamiliar with Windows 11, given the introduction of new features and alterations to the operating system's layout and appearance. Compatibility issues may arise with older software or hardware, necessitating updates or new drivers for optimal functionality. Users may also encounter difficulties in

utilizing new features like touch or voice controls, especially if these are unfamiliar. Issues during the upgrading or installation process, such as compatibility problems or error warnings, may hinder a smooth transition to Windows 11. Connectivity problems with the internet or network may also be experienced post-update. To assist users in navigating these changes, Microsoft provides valuable resources. New users can explore the intricacies of Windows 11 through avenues like user manuals and documentation, online lessons and videos, and various online communities or forums. Seeking advice from experts and engaging with other users can provide support and guidance. For Second Year Students pursuing a Bachelor of Science in Information Technology, understanding and adapting to Windows 11 is essential. This study aims to enhance the knowledge of these students regarding the new features and functionalities of Windows 11, ultimately facilitating a smoother and more effective utilization of the operating system. Various learning methods, such as reading documentation, watching instructional videos, exploring online resources, and experimenting with settings, are recommended to master the intricacies of Windows 11.

In addition to the aforementioned features and challenges associated with Windows 11, it's important to note that the update signifies a departure from its predecessor, Windows 10, with a more stringent set of system requirements. Windows 11 mandates certain hardware specifications, such as the need for a compatible 64-bit processor, 4 GB of RAM, and 64 GB of storage, among other requirements. Users contemplating the upgrade should verify their system's compatibility to ensure a seamless transition. Moreover, the introduction of the Direct Storage feature in Windows 11 brings improvements to gaming experiences by facilitating faster load times and enhanced graphics. This feature leverages the capabilities of modern Non-Volatile Memory Express (NVMe) and Solid-state drive (SSDs) to optimize data loading in games, providing a more immersive gaming environment for users.

Security enhancements in Windows 11 include the implementation of a hardware-based security approach called TPM (Trusted Platform Module) 2.0, which is required for the installation of the operating system. This adds an extra layer of protection against certain types of cyber threats. The Windows Store has undergone a significant revamp in Windows 11, offering a wider selection of applications, including support for both traditional Win32 applications and modern Universal Windows Platform (UWP) apps. The collaboration with Amazon Appstore expands the available app ecosystem, providing users with a more diverse range of software options. As part of the overall user experience, Windows 11 introduces new snap layouts and snap groups, allowing users to easily organize and manage open windows on their desktop. Virtual desktops have also been improved, providing a more intuitive way for users to create and manage multiple desktop environments for different tasks. While the transition to Windows 11 presents challenges, the benefits, such as improved aesthetics, performance, and security, coupled with an expanded app ecosystem, make it a compelling upgrade for users across various devices. The ongoing support and resources provided by Microsoft, combined with proactive learning methods, will empower Second Year Students in the Bachelor of Science in Information Technology program to harness the full potential of Windows 11 in their academic and professional pursuits.

2. Literature review

Technology plays a huge role in the present generation. It helps complete tasks and makes them more convenient for us. Because of the advancement of technology, it is important that users be knowledgeable about the uses, limitations, components, and functions of the present technologies. Through computer systems, we can connect with technology and inform the system what we need.

According to Tiwari and Siddiqui^[1], the operating system is the link connecting the computer hardware and the user. It provides several purposes in this computer system together with overseeing computer memory, files and safeguarding another system software.

Rahman^[2] identified the difficulties in building and evolving an operating system. He stated that it will be challenging to create an operating system that works well, is secured, and constantly improving under the standard of today's requirements regarding applications, security, and law. He further explained that it will be challenging to create a quick Graphical User Interface (GUI) that does not frequently crash, hang, or slow down. Ahmed and Gokhale^[3] discussed what a reliable OS is. An OS is considered reliable if it provides service that is uninterrupted when using the computer. It would be unrealistic to guarantee that an operating system is error-free due to its complexity. The system must be able to detect internal failures and amend problems wherever possible to avoid a complete system failure. In research conducted by Niu et al.^[4], the Operating System teaching have been the focus of numerous studies. They identified two methods of operating system education: simulated systems and real systems. Simulated systems offer a setting where users can experiment with certain ideas to better comprehend them. Due to their close resemblance to actual systems in terms of functionality, these systems are the most frequently utilized in operating system teaching. The drawback of this strategy is that despite their similarity to genuine systems, simulated systems are simply simplified versions of those systems and there are times they do not function as expected. Real systems are another strategy. With the use of this plan, a true OS's code is improved by the user, who then debugs the changes. In this method, users will be provided with a system's environment to aid in their understanding. If they choose to do this, changing and debugging a system will take a long time. Haakma^[5] stated in his research that novice users, when given new equipment, frequently start using it without delay. They conclude how the system worked although they are using it. For some systems, this plan seems to operate. He provided four stages of user activities. In the first stage users first form some notion of what they wish to look on (intention formation stage), then they decide to depend on the system in an effort to realize the insights they want (evaluation stage). The third stage is when the users will decide on how they will interact with the system (action selection stage). Throughout the last phase, users conduct the operations they choose (action execution). This instant, the users literally depend on the system. According to Sayago and Bergantiños^[6], in their case study about the earliest encounter of computer programming of senior people with low levels of conventional teaching, the research found out the features that helps them to understand and study the participants' computer learning experiences fixed on primary observations and talks with the partaker. They have discussed their inspiration for learning programming, which includes increasing their social competence and understanding of how computers operate. The research shows that the first programming knowledge experiences of older and the younger participants were similar. As they have stated throughout the study, these results broaden our present understanding of older people with regards to digital technologies. AS studied by Ayuyang and Valdez^[7] about the computer learning level of Public Secondary teachers of Northeastern Cagayan. Teachers learning level of computer is insufficient and only allows them to perform the majority of duties in the areas of word processing, spreadsheet, database operations, multimedia presentations, and communications with the internet. To keep up with the rapid progress of Information telecommunication technology (ICT) as a teaching tool, teachers are encouraged to improve their level of computer literacy. It is suggested that they should obtain the necessary training to use the computer in teaching more efficiently. According to Pawan^[8], Microsoft is one of the largest firms in the technology industry. Using their wide range of products, they can enhance the users' experience in computing. With the release of the current update to Windows OS (Windows 11) researchers have concluded that there is a positive response for the current update of the OS and users

are satisfied in its performance. There are multiple information and conclusions that came up in the studies particularly in the hardware up-gradation. The cost goes higher because most current users have to upgrade their hardware in order to update the said OS. However, some users have the idea of purchasing a new computer with Windows 11 already installed. Because of the popularity of Microsoft product and its operating system, it does not escape from the attacks of cyber criminals in order to exploit its vulnerability. According to Softić and Vežović^[9], Microsoft's Windows OS were attacked more than the other operating system. Using Common Vulnerabilities and Exposures (CVE) and National Vulnerability Database (NVD), they are able to gather data regarding the vulnerability of the different operating system. Between 2015 and 2021 with the comparison of three operating systems, Windows OS receives a high vulnerability score. In a separate study conducted by Sharma et al.^[10]. Windows OS shows several vulnerabilities. These weaknesses are Disk Operating System, RCE, Memory Corruption, Overflow, SQL Injection, XSS, Hypertext Transfer Protocol Response Splitting, Path Traversal, Bypass somewhat Gain Knowledge/Benefit, Cross Site Request Forgery File Inclusion, etc. After conducting experiments, the researchers concluded that the upgraded versions of Windows share the same vulnerabilities which can lead to negotiation of the system.

3. Methodology

This presents the methodology to be performed by the researcher, the research design used, the setting of the study, and the data gathering procedure to be used in this research to achieve the objectives of the study. The research design that the researchers have used in this study was a qualitative method. It aimed to know the effects of the development of windows 11 to the novice user. The study has been conducted at Mindoro State University-Bongabong Campus. Located at Barangay Labasan, Bongabong, Oriental Mindoro. The respondents will be observed by researchers for the data collection inside the Bongabong Campus of Mindoro State University. All the data and information from the observation were collectively gathered from the researchers. The researchers gathered the information/data which was needed in this study. Their goal was to know the effects of the development of windows 11 to the novice users. The researchers observed selected Bachelor of Science in information Technology (BSIT 2-1) respondents in Mindoro State University-Bongabong Campus for their survey.

4. Result and discussion

The data analysis presented the answers to observation about the study along with their analysis and interpretation of data. Each type of information was examined and interpreted with collateral information for understandable presentations of the outcome based on the difficulties raised in the research. The students prefer to use Windows 11 because of its design. They like Windows 11 because it offers an interface that is more like Mac with pastel color, or like an aesthetic and with a cleaner interface than its predecessor. Students agree that updating Windows 10 into Windows 11 is worth it. A few new features, performance enhancements, and design updates are included in Windows 11. More people pay attention to it than Windows 10. Windows 10 to Windows 11 upgrade demonstrates that there isn't much risk. Use of Android apps is also possible with Windows 11. When Microsoft releases a new version of Windows, especially one that is provided for free and sent to your PC by Windows Update, like they did with Windows 10 and now with Windows 11, it might be intimidating. The development of Windows 10 is Windows 11. It is identical to Windows 10; it simply appears different. Windows 10 and Windows 11, both work and function in the exact same ways since they are fundamentally identical operating systems. As a result, any software and equipment that functioned with Windows 10 will undoubtedly function with Windows 11. Windows 11 helps the students to have better control, to unleash their

creativity, and to improved their reading and writing. Students can also enjoy using windows 11 there will be no cost with the Windows Student Use Benefit program. It also provides education-specific default settings.

5. Conclusions

The researcher observed selected students from Mindoro State University's second year of a Bachelor of Science in Information Technology program who are using Windows 11. The objectives of this study have been identified, and the findings of the data collected have been discussed. It has been concluded that Windows 11 has been effective and should continue the development. The findings have revealed that Windows 11 may run into some problems with connectivity to the internet due to updates. According to the study, students favor Windows 11 due to its layout. They prefer Windows 11 because it offers a user interface that is more like a Mac in terms of aesthetic or pastel colors, and it is simpler. Students who use Windows 11 have better control, can express their creativity more freely, and their reading and writing skills are enhanced. The upgrade from Windows 10 to Windows 11 is deemed worthwhile by the students. It is anticipated that Windows 11 will operate more quickly, be safer, and support a wider variety of hardware and software. However, some users may experience problems with Windows 11 updates or installations, such as compatibility problems or error messages. Having difficulty connecting to a network or the internet, some users may run into problems connecting to a network or the internet after upgrading to Windows 11. Microsoft gave advice and lessons on how to use Windows 11 effectively that will guide novice users and help them learn more about how to use it.

6. Recommendations

The Windows 11 OS should continue the development, as it appeared to be very successful. The novice user should install Windows 11 because it helps you to become more creative. Microsoft need to fix the updating process to that Window 11 run smoothly. This can help the students to enhance their skills and knowledge. Novice users should upgrade their Windows Operating system to Windows 11 because it has a lot of features and is easy to navigate.

Conflict of interest

The author declares no conflict of interest.

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