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CST 1215

Future Operating System Concept

NexaCore OS

Write a 5 page essay with scholarly research with 5 sources of citations, plan a futuristic Operating System. How would it look like? What features would it have? What problems would it solve?

The operating system will build upon the foundation and current state of Linux while addressing its shortcomings.

My operating system would resemble something from the Matrix movies. The background would be black similar to dark mode on any device with a bluish green glow effect to complement it. This highlight to the operating systems theme would make working at any time more soothing and the eye and reduce the need for screen covers to protect the eye. The installation of the operating system will be very simple, and it will feature AI and disability accessibility features to help those in need in real time. Users will be given a tutorial to learn the basics and shortcuts of this new system. This will prevent users from needing to searching through countless forums and blogs just to know what they have downloaded and how to operate it.

There are many current day issues that have strained the limits of modern-day operating systems. Modern day operating systems are constantly being plagued with outcries from users about privacy and security threats. One security threat that is a torn in the side of users of our current and outdated operating systems whether on the business end or consumer end is ransomware attacks. These attacks are prominent in outdated versions of operating systems. In the article, “5 risks of outdated software & Operating Systems” written by Sabrina Pagnotta, she states “the fact is, failing to update your software doesn’t just mean you’re missing out on the latest version—it means you could expose your organization to major security vulnerability The problem is that most users are unaware of the operating system they are using and even worse they are left in the dark about any updates that should be made to limit the vulnerabilities on their devices, This issue is highlighted by Sabrina Pagnotta, in an article she wrote for Bitsight, stating “despite the clear risk, many organizations lack the visibility to know where security gaps exist so they can proactively fend off ransomware attacks or mitigate their effects.” The proposed operating system would not only update its security features to prevent this from happening, but it will also instruct users on how to protect themselves from these hidden threats. Additionally, users will be given alerts and constant reminders ahead of the expiration date of their licenses to ensure that they know that their operating system needs to be updated. To support these alerts, users will be told the risks and consequences of not updating their operating systems. The purpose of such tactics is to ensure the security of the consumers personal and business information and to raise awareness to an issue that many are unaware of. If this strategy fails, then the obsolete or outdated operating system will have safety features equipped inside of it to minimize the risks towards the user(s). One approach to reduce the risks of compromise is to prevent

3. \*\*Unified Ecosystem\*\*: Complete integration across devices (smartphones, computers, wearables) for seamless data and task transitions. 6. \*\*Universal Connectivity\*\*: Effortless connectivity with IoT devices, autonomous vehicles, and smart infrastructure through a unified connectivity framework.

A futuristic operating system might include:

The features or lack of features can be the make or break of whether an operating system becomes universal in every device. For instance, the reason why Linux isn’t a mainstay in every device is due to its lack of support for some hardware. In the article, “Major Linux Problems on the Desktop, 2023 edition” the author writes, “30bit monitor displays are unusable under Linux,” Additionally, Google Chrome is broken on these monitors and FireFox runs slowly. The lack of support for these devices would turn people off from an operating system, which is something NexaCore OS will work to solve. NexaCore OS will prioritize AI integration. My proposed operating system will seamlessly integrate artificial intelligence such as ChatGPT for intuitive interactions and proactive assistance. Theo Priestly recently published the article, “AI and Space show a need for new operating systems” where he explains that our old way of thinking and outdated architectures is hindering our progress. “the lack of standardization has led to inefficiencies, increased cost, and add complexities in mission design.” One can speculate that a new operating system that ensures compatibility and seamless communication between different hardware and software components such as artificial intelligence will not only save the space industry millions of dollars in maintenance yearly but rapidly accelerate the rate of which new technologies are introduced into that field. As the world grapples with uncertainty and inflation, NexaCore OS will have built-in features to minimize energy consumption, reduce carbon footprint, and optimize resource utilization. NexaCore will also having features to help employers and employees improve their performances. NexaCore OS will come equipped with health-tracking devices and AI-driven wellness features to promote user health and productivity. \*\*Immersive UI/UX\*\*: Highly immersive user interface with augmented reality elements, customizable 3D environments, and gesture-based controls.

Tashkinov, Artem S. “Artem S. Tashkinov.” An IT Guy Corner: Information and Rant about Modern Operating Systems: Windows 10, Windows 11, Linux, iOS and Android, 12 Aug. 2023, itvision.altervista.org/why.linux.is.not.ready.for.the.desktop.current.html.

Priestley, Theo. “Ai and Space Show a Need for New Operating Systems.” Medium, Medium, 10 Nov. 2023, medium.com/@theo/ai-and-space-show-a-need-for-new-operating-systems-0ea0494de4ad.