

HCI Report on:

The evolution of Operating System

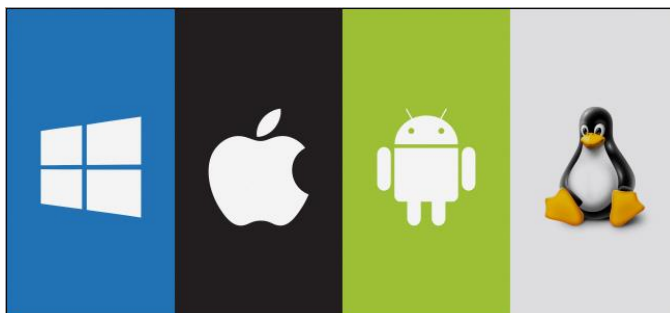
Abstract

Although the development of operating systems around the 1950s and 1960s can be considered a true turning point that revolutionized the computer era, the history of electronic digital systems and computing precedes operating systems.

Operating systems have changed quickly and dramatically over time to meet changing consumer demands, from making computing faster and more efficient to providing scalable and secure platforms for a world that is becoming increasingly digital. Bringing you up to speed on the most recent innovations and trends as well as what the market has to offer, we delve into the evolution of operating systems that led to the phenomenon of enterprise OS in this section. Our goal is ultimately to give you the ability to select the OS that is most suitable for your organization.

Changes in operating systems

Operating systems have been crucial in the development of computers, continually adjusting to changes in hardware and user communities' expectations. From the beginning of computers, they have been the focus of extensive research and have led to some of the most significant innovations ever. In this study, we provide the results of an empirical experiment in which we tracked, recorded, and examined the development of a few operating systems.



Evolution of Windows OS



Introduction

The Windows Operating System is the most widely used operating system in the world, holding a market share of over 70% of all desktop OSes and has held its dominant market position ever since its inception. As such it is important to analyze how Windows has gained this market share, and how it continues to change and adapt to the needs of the modern users, and whether these changes are well received by the users. For this report, we will be analyzing the following modern versions of the Windows OS. Version that are still in use (although some being used in very niche situations):

- Windows XP ● Windows 7 ● Windows 8 ● Windows 10 ● Windows 11

This will allow us to get a comprehensive view of the changed features within the OS over the years across the various versions of it.

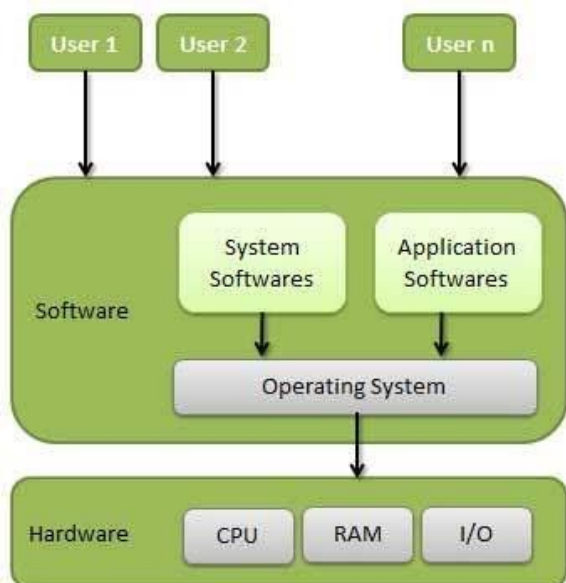
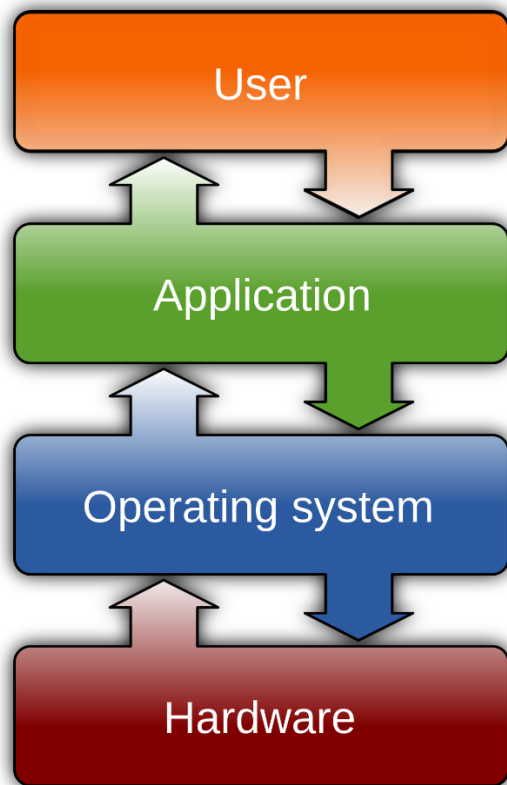
Motivation

Microsoft has made its fortune starting out with the help of Windows, and to this date, it is still the most widely used operating system in the world. As such it is important to analyse features of this OS, the features that drive it and how it differs from its competitors. On a more human level, users are expected to interact with the OS at every step of the way to communicate with the underlying hardware, where the OS is expected to help out at every step. However, in recent years, users have started to complain regarding the features, whether important features being removed or unwanted features being added. Users have also started to complain about the fall in quality of the services and the lack of privacy from these systems. Thus, it is an important topic of consideration in the field of HCI (Human-Computer Interaction). As such, we will be analysing the various features of the OS, and receiving direct feedback from existing users in regards to their opinions of it.

Methodology / Procedure

We first divide the features into three broad categories: 1. The User Interface (UI) 2. The User Experience (UX) 3. The Overall Look & Feel the UI section will focus more on User Interface changes the OS has experienced over the years, and whether they adhere to the design principal guidelines. Examples include the looks of the icons, controls, the taskbar, start menu, etc. The UX section will focus on the changes in the features in the many aspects of the OS and how they are useful to users. Examples include navigation in the windows explorer, accessibility, online integrations, etc. The Look & Feel section will focus on the user impressions of these UI and UX features, and their general reception of the features. We will also look at the common complaints regarding these features and

also how they are praiseworthy. Our methods will involve, first analysing the features and extracting the useful and relevant ones among them. Then we will be conducting a survey to get a general idea of the user impressions and present an analysis of it.



Survey Questionnaire link:

https://docs.google.com/forms/d/e/1FAIpQLScJq53fnXzJh7FR7Wjf7AklddXdMzTRaqu-99Mk1FVjox5FLA/viewform?usp=pp_url