



Reluctance to Linux distros:A study among college students in Malappuram district,Kerala

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ABSTRACT

Linux is one of the most popular and well-known operating systems like other operating systems such as Microsoft Windows, Apple Mac OS, iOS, Google android, etc. An operating system is a software that directly manages a system's hardware and resources, like CPU, memory, and storage. Linux on the desktop is not as popular as Windows and Mac Os. This survey was conducted among the college students in Kerala to know why students show a reluctance to the Linux distros . This study found that there are few reasons for that. The main reason is that people buy PC and the operating system as a whole. and most people don't know an OS can be changed.

Keywords:Operating System,Linux distros,Open source.

INTRODUCTION

Technology has been on the rise throughout the past several decades. Every new generation has been getting savvier about devices around them. College students experience that it becomes harder and harder to ignore the need to study up on their IT knowledge if only a little bit. This study focuses on Operating systems among college students. An Operating System(OS) is a collection of software, each designed for a specific function. There are mainly 4 types of OS available In broader classification. Mac OS, Windows, Linux, and Dos. Linux has various flavors, they pretty much do the same stuff , different vendors configure Linux according to requirement and sell in various flavors. Windows as we all know is very common. With Windows dominating the market, the choice of a perfect OS may seem like a very straightforward issue. But it's not quite as simple when you start digging. There are multiple alternatives that might just suit your needs better than Windows ever could. And when researching these alternatives, Linux is the first option that pops up.

Linux is an open-source that comes entirely for free which was founded by Linus Torvalds in 1991. Despite being one of the oldest operating systems, Linux is still well-known and widely used by many people. Linux is actually everywhere, it is very much famous among developers and normal computer users . It also runs on our phones, laptops, PCs, cars, and even in refrigerators.

At first glance, Linux doesn't have the image of being user-friendly, but that's only for people who believe that Linux is all about the command line. In fact, you don't even have to touch the terminal in daily use if you don't want to. It is simple to install and not vulnerable to viruses, which means the security won't be breached easily. one of the best things about Linux is its access to all the different Linux distributions – commonly known as Linux distros. Each distro holds a unique philosophy and thereby bundles in different software and utilities, making it perfect for certain users but not all.

ABBREVIATIONS

OS - Operating System
PC - personnel computer

LINUX

Linux operating system is an example of a non-proprietary OS. A proprietary operating system is one that a particular company conceptualizes, designs, develops, and sells. Proprietary operating systems cannot be modified by users or other companies. For example, Windows and OS X are both proprietary OSes. The Windows source code is owned by Microsoft and the OS X source code is owned by Apple. Other companies can make programs that run on these operating systems, but they cannot modify the OS itself. Linux and Android are not proprietary, which is why many different versions of these operating systems exist. Thus Linux is called Open source operating system. The term open source refers to something people can modify and share because its design is publicly accessible. Open source offers more flexibility to users, which can accelerate innovation. Open source is developed and maintained by a community.

ADVANTAGES OF LINUX

There are many reasons researcher preferred Linux over proprietary software platforms such as Windows and Mac.

- 1.Open Source:**The main advantages of Linux are that it is an open-source operating system i.e. its source code is easily available for everyone. Anyone capable of coding can contribute, modify, enhance and distribute the code to anyone and for any purpose.
- 2. Security:**The Linux security feature is the main reason that it is the most favorable option for developers.Linux is less vulnerable and more secure than Windows operating systems. Each application needs to authorize by the admin user, who is required to type in a password. This way, Linux makes it less probable that any virus will execute
- 3.Software Updates:**In Linux, the software updates are in user control. We can select the required updates. we can encounter a larger number of software updates. These software updates are much faster than updates in any other operating system. So, the system updates can be installed easily without facing any issues.
- 4.Customization:**Customization allows users to add icon themes and wallpapers and to easily add or delete a feature as needed. as it is an open-source operating system. Not only this, various wallpapers and attractive icon themes can be installed to give an amazing look to your system.
- 5.Various Distributions:**There are many Linux distributions available in the market. It provides various options and flavors of Linux to the users.You can select any distros according to your needs. Some popular distros are Ubuntu, Fedora, Debian, Linux Mint, Arch Linux, and many more.For the beginners, Ubuntu and Linux Mint would be useful and, Debian and Fedora would be good choices for proficient programmers.
- 6. Free to use (Low Cost):**Certainly, the biggest advantage of the Linux system is that freely available on the web to download and use.there is no need to buy the license for it. It is distributed under GNU General Public License.(GPL). Comparatively, dont need to pay a huge amount for the license of the operating system as in the case of Windows.

7. Large Community Support: There are many forums available on the web to help and solve the problem the user is facing. Linux provides large community support, to assist users. There are a lot of dedicated programmers there to help you out whenever and wherever possible.

8. Stability (Reliability): Linux is more stable than other operating systems. It does not need to be rebooted after a short period of time. Your Linux system rarely slows down or freezes. It rarely hangs up or slow down. Thus you can work without any disturbance on your Linux systems.

9. Privacy: Linux ensures the privacy of users' data as it never takes much private data from the user while using its distributions or software. But this is not true for many other operating systems.

10. Performance : Linux provides high performance on various networks and workstations. It is capable of handling a large number of users simultaneously.

11. Network Support: Linux gives support for network functionality as it was written by programmers over the internet. Linux helps you to set up client and server systems on your computer systems easily and in a fast manner.

OBJECTIVES OF THE STUDY

- To identify the commonly used operating system among the students in colleges.
- To identify the popularity of Linux distros among college students
- To identify the reasons for the reluctance to Linux distros

METHODOLOGY

The study followed an exploratory method by attempting to understand the popularity of Linux distros among the college students (especially among technical students). The sample covered both technical and non-technical students. The sampling technique was a combination of judgment

sampling & quota sampling. This study used a comprehensive questionnaire designed to cover major aspects of various operating system familiarization among this group. The survey method is used for data collection. In addition to questionnaires, other methods of data collection such as research journals, related articles, publications and, various websites helped to form the results. Data analysis was made by using statistical tools like percentages and chi-square tests. The area of the study was confined to the college students in Malappuram district Kerala, India.

LIMITATION OF THE STUDY

- The time was a major constraint in conducting this study.
- The result of the study was location specific and the conclusions drawn may not be applicable to different districts
- The sample size is small. So the findings of the study can't be generalized to the whole population.
- This study limited to two colleges in the Malappuram district

ANALYSIS AND INTERPRETATION

Analysis means systematic breaking up of content. Interpretation means giving a meaningful conclusion regarding the analysis. In this chapter, the researcher goes through the systematic analysis of collected data. Here the researcher used various statistical techniques for ensuring the effectiveness of the analysis. Simple percentages, tables, and charts are used for the detailed analysis. Through this analysis, the researcher arrived at feasible findings regarding the study.

Availability of Laptop/Desktop

The below chart reveals that out of 53 respondents 64.2 % of students have their own laptop/ desktop systems. 35.8 % of students don't have a personal computer. This study mainly focused on those who have a PC for educational purposes, As most of the respondents, were technical students, the researcher also tried to find out some facts like the popularity of the main three OS among those who don't have a laptop/Desktop.

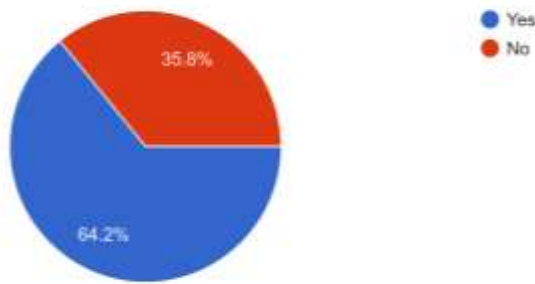


Figure 1: Availability of PC

Linux familiarity among those dont have a PC

The study reveals that the majority of students who didn't had a system were familiarized with windows OS .which is around 63.2 % and 36.8 % of students were familiarized with chrome. None among them are using Linux distros and MAC OS. This shows the linux distros were not widely spread among the college students, especially in non technical students.

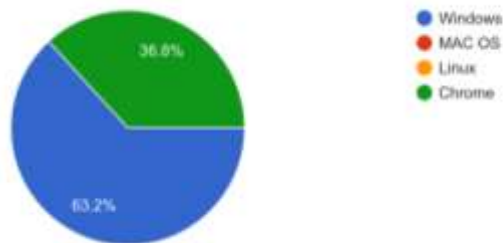


Figure 2: Linux familiarity

Windows OS popularity

The study among those who have a PC shows that 94.1 % of students were using windows as their current default OS .None among them were using chrome and MAC OS as their default OS. Only 5.9 % students were using linux distros for their educational and carrier purpose. All these linux users are having computer science background .Thus they were using by understandin all the features that linux provides .But unfortunately they are also treating linux as a secondary OS of their PC.

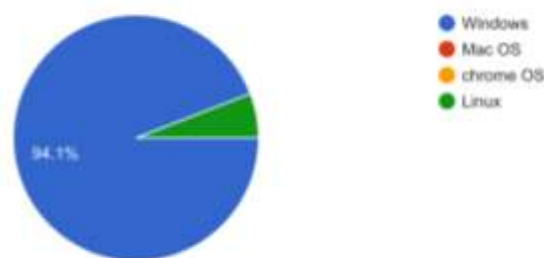


Figure 3: Windows OS popularity

Acceptance of various version

Most of the windows OS users are updated their OS to the new versions .Almost 69 percentage among them are using windows 10 OS. Only few students are using windows 10 S. 6.3 % of students were using windows 8 version. 21.9 % of students are using windows 7. By considering the age group of the respondents to the survey, there may be a chance that the users were not changed their OS after they brought their system. It shows the low upgradation level among windows OS users. It point out the low level of OS knowledge among college students.

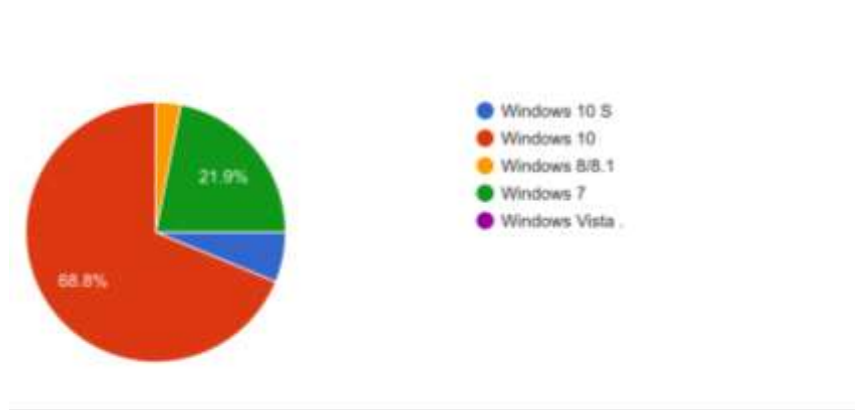


Figure 4: Acceptance of windows versions

Study found that the students who are using linux as their default OS are satisfied with Ubuntu Distro. None of them were using other distros like Debian, Fedora, Linux mint, RedHat linux and others. The reason is clear that Ubuntu Linux is the most popular open source operating system. There are many reasons to use Ubuntu Linux that make it a worthy Linux distro. Apart from being free and open source, it's highly customizable and has a Software Center full of apps. According to the Ubuntu user statistics, around 66% percentage users opted Ubuntu from other Linux distros.

If you have newer hardware and want to pay for support services, then Ubuntu is the one to go for. These may be the reason why the Ubuntu has high popularity among this age group.

Linux familiarity among windows users

The study also attempted to figure out whether the windows users ever used linux distros atleast once. The result was shocking. 43.8% among them were not yet used linux distros anywhere atleast once. The reason is quite obvious and predictable as students are mostly beginners and hence they find Windows more comfortable. But 56.3% among them were used atleast once was a good news to the researcher.

As compared to this fact, we can see the rate of growing in linux popularity among the survey respondents.

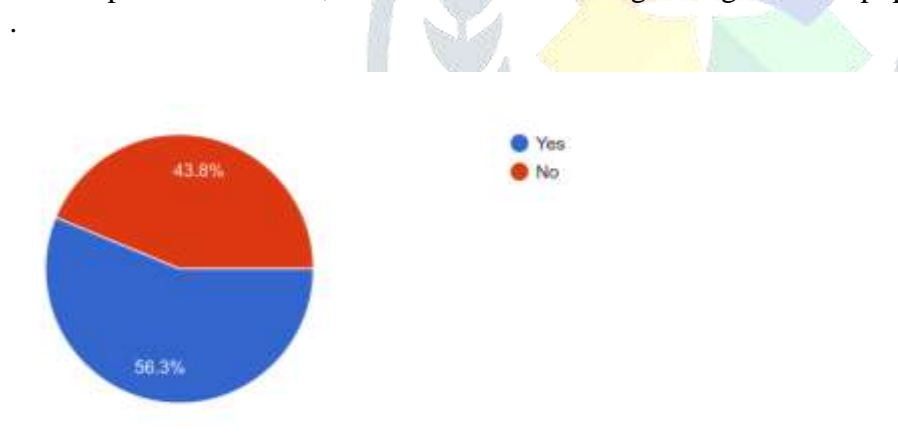


Figure 5: Linux familiarity among windows users.

Reasons for the reluctance to Linux

The researcher tried to find out the reason behind why windows users, who were used linux earlier were not using linux currently. There are many reasons they are raising for that. The respondents around 33.3% were used Linux in their schooling time. But further they were not yet try to use it again. 22.2% of students default OS was windows at the time they bought their system. They were not try to update it. Only 5.6% of students thought that the linux doesn't having enough features. 27.8% of students were agreed with all the reasons that researcher mentioned for reluctance to linux OS.

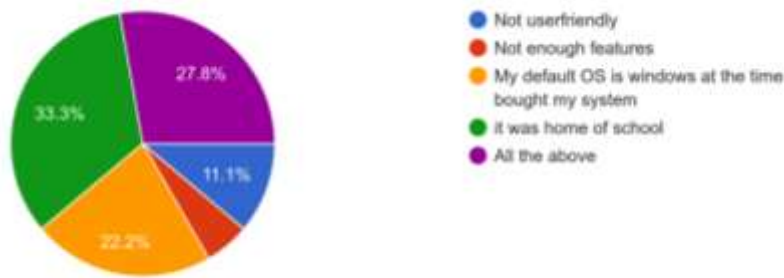


Figure 6: Reasons for the reluctance to Linux

Upgradation to Linux

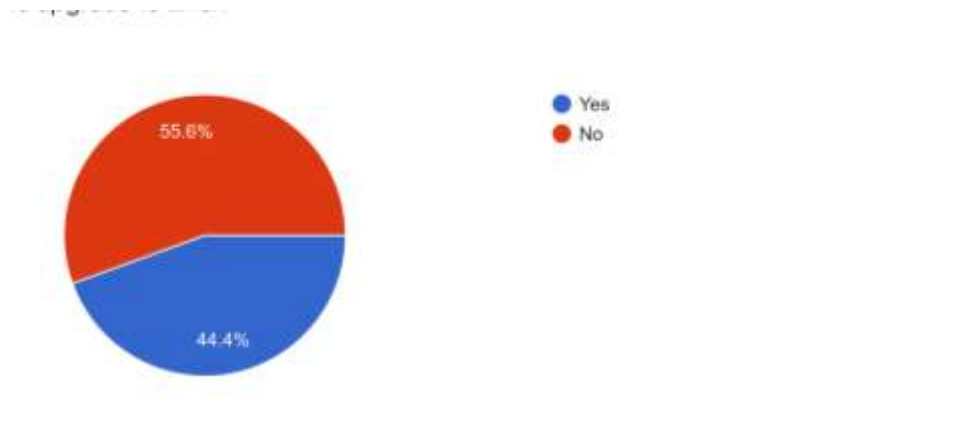


Figure 7: Do you wish to upgrade to Linux

55.6 % among those who were used linux before, are not wish to upgrade to Linux from Windows . 44 .4 % students were shows their willingness to upgrade their default OS to Linux

FINDINGS OF THE STUDY

From this study, researcher found that,

- Majority of the respondents are from technical students (either BCA/MSC computer science), even then they don't have knowledge about the other OS than windows.
- Study shows that 64.2 % of students have their own laptop/desktop system. But 35.8 % of students don't have a system for their personnel use.
- The lack of PC may lead to the unawareness of various OS.
- Most of these students who don't have a system were familiarized with Windows OS only. This shows their poor technological knowledge. 36.8 % of students are familiarized with Chrome OS . But no one is familiar with Linux.
- While the researcher suggest some features of Linux distros and advise them to try Linux, Most of the students agreed and they show their willingness to use it while they had a chance. But few students shows their reluctance and they were not agreed with the features that the researcher point out. This shows the insufficient knowledge of other OS among students and reluctance to choose another one from their default OS.
- The study among the students who were familiar with Linux distros shows that majority of the students were using Windows as their default OS. They don't have a good idea about the great features of Linux distros. Only a few students were using Linux as their default OS
- 56.6 % of windows users used any one of Linux distros at least once. But unfortunately, 43.8 % of users were not at all used Linux ever.
- There are many reasons that they point out for this reluctance. The majority of them were used Linux during their schooling as part of their curriculum. The default OS was Windows while buying the system is another reason. Only a few students point out that Linux is not user-friendly as well as not having enough features as compared to Windows OS.

- The study shows that none of the students were using MAC OS . The reason may be the cost . the majority of the students were depending on their parents on their undergraduate and postgraduation studies. while considering the cost, may pull back the students from MAC OS
- Among windows users, the majority of students have updated their OS to the new version. But few students were still not updated in their system .it shows the poor knowledge of OS.they were not try to upgrade after they bought their system.
- The above finding shows that few students were buying PC and the operating system as a whole and don't know an OS can be changed.
- Out of the Linux users(default OS), all of them are using Ubuntu distro. None of them are using other distros like Debian, Fedora, Redhat, etc.
- Most of the respondents have ,only a piece of average knowledge about the various OS.

SUGGESTIONS

- Students should be motivated to use OS other than Windows.
- Sufficient technical knowledge about the laptop/desktop as well as OS is to be provided while buying it.
- Linux experts love the Terminal,with the right commands they can do anything. you don't even have to touch the terminal in daily use if you don't want to.This fact is is not known to every one ,it should be accepted.
- students should have basic knowledge of various OS and their advantages. Thus students may get attracted to their interested features and never stuck on a single OS

COMMON FACTS

- It is true that Linux powers a lot of stuff that we don't see and that Android, of which there are a billion phones and tablets, is a type of Linux. but focusing on PCs in homes and offices ,Linux has failed to convince people that it has anything to offer them.
- There are far too many versions of Linux and this may confusing for common people.
- Linux experts love the Terminal because with the right commands they can do anything. Although there is a command prompt in Windows and Mac users have a Terminal, the majority of Windows PC and Apple Mac users do not know what it is and have never used it.
- People don't care about operating systems, they care about software. Photoshop does not run on Linux and if you need to use Photoshop then your choice of operating system is between Windows or OS X. Linux is not an option. It is true that they are free alternatives and good in their own way.
- There are Linux alternatives to many market leading Windows and Mac software packages, but mostly they are not the same and they are not as good. GIMP is not Photoshop and LibreOffice is not Microsoft Office.

CONCLUSION

Students are always going to prefer laptops over desktops,because laptops are far more portable and compact, which is crucial for keeping up with the student lifestyle.Not many students know about this Linux OS as it is not really popular but it has its own benefits, which make things easy for students. Though the first impression one get regarding Linux seems intimidating or boring but people that use the Linux for a month love it so much that they don't want to use anything else.There are tech enthusiasts who vouch for their credibility and have shared their reviews regarding Linux learning.

REFERENCES:

1. <https://searchdatacenter.techtarget.com/definition/Linux-distros-Linux-distribution>
2. <https://fosbytes.com/student-developers-prefer-windows-over-ubuntu-arch-linux/>
3. <https://www.howtogeek.com/132624/htg-explains-whats-a-linux-distro>
4. <https://searchdatacenter.techtarget.com/definition/Linux-operating-system>
5. https://en.wikipedia.org/wiki/Operating_system
6. <https://www.golinuxhub.com/2020/07/>
7. <https://ubuntu.com/desktop/statistics>
8. <https://www.quora.com/Is-Linux-going-to-be-more-popular>
9. <http://www.rawinfopages.com/>
10. <https://www.fosslinux.com>
11. <http://www.ijtrd.com/papers/IJTRD1374.pdf>
12. <https://www.engpaper.com/linux-2018.htm>

