

Linus Torvalds

Advocate for open source software development, wrote version control solution Git, developer and maintainer of Linux kernel.

Early Life

Born in Helsinki, Finland.

Linus interest in programming blossomed since the age of 11. Started programming in BASIC, and later machine code, but only worked assembly language by hand.

On his second computer, he modified its operating system extensively, and wrote his own assembler, editor and few games for his computer due to the difficulty in obtaining software for the in-box operating system in Finland at the time. Due to the experience, Linus is used to writing new tools, further amplified by the lack of commercial solutions at the time.

Linus attended University of Helsinki and graduated with a master's degree in computer science (1988-1996).

Linux

Linux is a family of open-source Unix-like operating systems based on the Linux kernel.

The Linux kernel that we know of was (partly) named by the one of the administrators of the FTP server used for Linux development after making personal decision that Freax was not a good name (free + x). Linux was already in consideration of Linus at the time but was dismissed, but following the incident, Linus consented in naming the kernel Linux.

A penguin named Tux (Torvalds' UniX) was selected as a mascot for Linux due to the incident where Linus was bitten by a little penguin in the zoo on a trip in Australia.

Linux was used by >75% of the stock exchanges world wide (2011) and most if not all the network infrastructures.

Linux also makes up to 1~3% of the desktop market (variable by sources).

Android is a mobile operating system based on a modified version of the Linux kernel and other open source software taking up to ~73% of the market share.

Linus was exposed to UNIX and wrote “Linux: A Portable Operating System” for his MSc thesis.

Due to the limitation of use caused by the licensing of MINIX, Linus worked on his operating system kernel later known as the Linux kernel which was licensed with the GPL license under GNU to limit the commercial uses of the kernel, and ended up contributing not only the open sourcing of Linux, but the technological landscape of the industry.

Worked in university research group, Linus received supports in developing Linux and other experimental technologies.

Linux source code was released in 1991 and the first production ready Linux 1.0 on March 1994.

Git

Git is a distributed version control system developed by Linus with contributions from few other kernel developers for the development of Linux kernel sparked by the retraction of free use for the proprietary source control management system BitKeeper after the release of 2.6.12-rc2 Linux kernel.

Git is the most popular distributed version-control system due to the characteristics that allowed Git to shine in both small scale and large-scale projects.

Git was developed with the aim of avoiding what CVS was doing, different from Bit Keeper while referencing to its distributed workflow and safeguard against malicious or accidental corruption, due to the lack of available solutions at the time.

First version of Git was developed within 2 weeks.

Impact

Linux impact on the general software development industry is scarily huge. The creation of Linux and Git, either one of them would already place Linus on the hall of fame.

Regardless if we are in the software development industry, Linus' impact on us is experienced by us everywhere. Watching Youtube? Network infrastructure. Making new website with your fellow developers? Git source control. Uses any software? Most likely (partly) developed with Linux kernel.

It is safe to say that the open source landscape would be different if Linus does not exist, or had he not chosen to license Linux kernel under GPL license. If Linux was developed any differently, the software engineering might have been different.

Conclusion

Linus is Linus by chance, he became the Linus we know due to the experience he had, and if Linus has not made the decision he had made, someone else would have done it. But even then, Linus' contribution should be appreciated. It would be safe to say that due to Linus, software engineering has been way convenient.

Bibliography:

Linus Torvalds:

-https://en.wikipedia.org/wiki/Linus_Torvalds

-<https://blog.storagecraft.com/linux-history-linus-torvalds/>

-<https://www.youtube.com/watch?v=MShbP3OpASA>

Linux:

-<https://en.wikipedia.org/wiki/Linux>

Linux Naming

-https://en.wikipedia.org/wiki/History_of_Linux

Linux Desktop Market:

-https://netmarketshare.com/linux-market-share?options=%7B"filter"%3A%7B"%24and"%3A%5B%7B"deviceType"%3A%7B"%24in"%3A%5B"Desktop%2Flaptop"%5D%7D%7D%5D%7D%2C"dateLabel"%3A"Trend"%2C"attributes"%3A"share"%2C"group"%3A"platform"%2C"sort"%3A%7B"share"%3A-1%7D%2C"plotKeys"%3A%5B%7B"platform"%3A"Linux"%7D%5D%2C"id"%3A"linux"%2C"dateInterval"%3A"Monthly"%2C"dateStart"%3A"2019-11"%2C"dateEnd"%3A"2020-10"%2C"segments"%3A"-1000"%7D

-<https://gs.statcounter.com/os-market-share/desktop/worldwide>

-https://en.wikipedia.org/wiki/Usage_share_of_operating_systems#Market_share_by_category

Android Market:

-<https://gs.statcounter.com/os-market-share/mobile/worldwide>

Git:

-<https://en.wikipedia.org/wiki/Git>

-<https://www.youtube.com/watch?v=4XpnKHJAok8>