

## Introduction

Linus Torvalds is a Computer scientist from Helsinki, Finland. He is known for his development of Linux the Unix-based operating system which he also wrote as part of his master's thesis titled, 'Linux: A Portable Operating System'. He also developed the free and open-source distributed version control system 'Git' for developing and managing LINUX. He has been awarded many titles along with 17<sup>th</sup> in 'Time 100: The Most Important People of the Century'. This is the biography of Linus Torvalds, one of the world's most renowned software programmers who revolutionized the computer industry. This article will shed light on some already famous contributions made by Linus and how events led to those developments, followed by a summary of the footprints that Linus has on the present computing word.

## Early Life

Named after Linus Pauling, the famous physical chemist, and Nobel Prize winner, Linus Benedict Torvalds was born in Helsinki, Finland on December 28, 1969. Many members of his family were journalists, Even though his parents Nils and Anna Torvalds divorced when he was quite little, he enjoyed a traditional and happy childhood. Linus was influenced by his other grandfather (maternal), Leo Toernqvist, a professor of statistics at the University of Helsinki. Linus first personal experience with a computer was in the mid-1970s with a Commodore Vic 20 one of the first personal computers, bought by Leo, it was shortly afterward that Linus got bored of the few programs present on it, he started creating his own using BASIC programming but soon moved to assembly language as he found it more powerful, this was when Linus gained a huge interest for programming and mathematics, such that even after multiple attempts by his father to interest him with sports and other activities, he did not hold back in admitting that he lacked ability or enthusiasm in such endeavors.

In 1987 Linus from his saving bought his first computer a Sinclair QL words first 32-bit computer for home use, which was a huge upgrade from his grandfather's computer, but he soon became unsatisfied as the operating system on his new computer didn't allow him to reprogram it.

Linus in 1988 joined the University of Helsinki as a major in Computer Science although he was already an accomplished programmer by then.

## Career Contributions

LINUX, one of the most significant contributions Linus made, started when Linus bought his IBM compatible personal computer installed with an intel chip, but as powerful the processor and other hardware's of the computer where, Linus found MS-DOS OS the default operating system of the computer was not powerful enough to use the hardware at its full capability, he rather found UNIX to be much more powerful and stable, which he was more accustomed to from using on university systems, but even after consequently looking for a version of UNIX to use on his computer he was not able to find it for less than the US \$5000. Only available affordable option was MINIX, the clone of UNIX developed for the purpose of university teaching, which was, although much more powerful than MS-DOS, MINIX lacked the performance and some features of UNIX. That is when he decided to design his own OS which was to be based on UNIX and MINIX, without realizing the impact this little decision will have on the computer world. He took a break from university to work on his project full time.

He even sent an official email to MINIX users notifying them about his step.

Message-ID: 1991Aug25.205708.9541@klaava.helsinki.fi

From: torvalds@klaava.helsinki.fi (Linus Benedict Torvalds)

To: Newsgroups: comp.os.minix

Subject: What would you like to see most in minix?

Summary: small poll for my new operating system

Hello everybody out there using minix-

I'm doing a (free) operating system (just a hobby, won't be big and professional like gnu) for 386 (486) AT clones. This has been brewing since april, and is starting to get ready. I'd like any feedback on things people like/dislike in minix, as my OS resembles it somewhat (same physical layout of the file-sytem due to practical reasons)among other things.

I've currently ported bash (1.08) an gcc (1.40), and things seem to work. This implies that i'll get something practical within a few months, and I'd like to know what features most people want.

Any suggestions are welcome, but I won't promise I'll implement them :-)

Linus Torvalds torvalds@kruuna.helsinki.fi

He soon developed two official versions of the OS, which were able to run the shell-bash and GCC compiler (the GNU C Compiler).He then released this under the GPL (GNU General Public License) instead of a limiting license which he planned on doing initially.

This step allowed the modification, extension, and redistribution of the OS, which had now a huge amount of software engineers all around the world working on the OS with contributions from the Free Software Foundation and many others open to help. Not to mention it was available for free.

Another big contribution by Linus is Git, In 2005 after the copyright holder of Bitkeeper a Source Control Management, system developers of LINUX had been using to maintain the project, withdrew the free use of the product, Linus took it to his own hands to develop a Source Control Management system like Bitkeeper but with features that would suffice their needs, and started working on it from April 2005 and in just 3 months he had a fully functional Git managing LINUX's latest kernel ready. He handed the maintenance of the modern SCM system to Junio Hamano. Git now has developed into a remarkably big and open to all SCM.

## Footprints

With numerous awards and achievements that Linus has gained over the years, he is one of the most influential software engineers of our time. His work has made an everlasting imprint on the computing industry. He has a total of 35 applied and granted patents under his name. LINUX OS is the largest and most pervasive open-source software project. LINUX now administers as a collaborative, open-source project, LINUX kernel today is being used by Giant like Google, PayPal, Amazon, eBay, Android systems, and many more small and big companies and developers.

If that's not enough of an impact, Linus' Source Control Management system has greatly helped today's developers. GIT because of its rapid branching, merging, and navigation of non-linear development history of the code is now a must-have in the software engineering industry. It is also a parent to GitHub, the most widely used tool by developers to provide a network for many companies to maintain their code.

## Present Life

Linus in 2003 started working for Open Source Development Labs (OSDL), a consortium created by High-tech companies like IBM and Siemens to promote Linux Development, OSDL was later merged with the Free standards group to form Linux Foundation. Linus owns the trademark for LINUX and is the decision-maker for modifications in the LINUX. In his own words in an interview given to ZDNet, "I'm not a programmer anymore, my job is to literally say no to patches And because developers know that if they do something that I'll say 'no' to, they do a better job of writing the code.", So to end this Biography about Linus Benedict Torvalds, in his own one of the most famous quotes " Talk is Cheap, Show me the Code".