

'To produce a short biography of a key software engineer discussing the work and impact of the individual'

Linus Torvald



Introduction

Linus Torvald is the creative genius that helped shaped the modern computer world as we see it today. Named by Time Magazine in 2004 as one of 'the most influential people in the world'. (Lessig, 2004) There is no doubt that his somewhat controversial and ruthless character only adds to the worlds intrigue as to who is the excellent software engineer, that is Linus Torvald. Torvald transformed the technological world not once but twice, firstly with Linux Kernal, responsible for powering the internet and secondly with Git, the source code management system widely used by software engineers across the globe (Torvald, 2016). One of the most special things about Linus Torvald as a software engineer is that you do not need to understand code or be familiar with computer science to appreciate his contribution to not only the world of tech but the world in general.

Early Life

Linus Benedict Torvald, son of two journalists, was born in Helsinki, Finland in 1969. Torvalds exposure to computer science began early in his life with his first interaction with coding occurring at age 10, when he used to dabble with his grandfather's home computer, the Commodore VIC-20. His initial introduction to code was through BASIC, however he later enrolled as a computer science student in the University of Helsinki. As an eager computer programmer Torvald began to work on many gaming applications, such as a Pac-man clone which he named *Cool Man*.

Torvald graduated in 1988, 6 years later with a master's degree in Computer science. It was during this period that Torvald purchased his first PC and found that the computer's operating system to be unsatisfactory. This dissatisfaction went on to shape and motivate his final master's thesis entitled 'Linux: A Portable Operating System'. It was written about Linux, an operating system he developed which became one of the most important software engineering developments in the modern world.

Education

It was at university, where Torvald first became exposed to the UNIX operating systems. He preferred the UNIX operating system found on university computers to that on his own PC and as a result in 1991, he began to create his own operating system, the basis to the modern Linux. It was during this time that Torvald posted an online message making the initial Linux software and source code available and for a free download. This meant that anyone with a prior knowledge of computer science and code could now use this software and modify it to suit their own needs. Due to the public access to the source code, other computer programmers and software engineers helped to both refine, shape and improve Linux by contributing code. It was then that Linux V1.0 was released by Torvald and a group of volunteers in 1994. This became the starting seed to what can only be described as a remarkable invention.

Linux

Originally Linux required a user to be familiar with computer science in order to gain full benefit and it was not as easy to operate as other systems such as Windows or Mac IOS. Linux's popularity came to light in the 1990's as it offered a sound and stable system that rarely crashed as well as the source code being free and easily modifiable. This meant that different language versions were easily created as well as smaller companies being able to modify it to suit their own needs. For this reason Linux began to take the world by storm and its popularity spread across the world over a very short time period.

Transmetta

In 1997 Torvald and his family relocated to California after he took up a position at Transmetta, a fabless semi-conductor company. Following a six year stint, Torvald left the company and began to work as a project coordinator under the auspices of the Open Source Lab Development (OSLD) an alliance of a number of high tech companies such as IBM, Intel and Siemens in order to promote the development of Linux. OSLD later merged with the Free Standards group in 2007 and became known as the Linux foundation. Several

versions of Linux have since been developed and is now one of the most used operating systems in the world.

Git

In 2005, Linus Torvald once more came up with an invention that would leave a mark on the world of computer science, this time it was a source control management system called Git. The origins of Git stemmed from usage rules against reverse engineering in Bit Keeper. Torvald saw the need for a solid source control management system and with none to fit his required criteria, he felt it was best to create his own and so Git was born. Git is now used by thousands of programmers for projects across the world and has created a new level of social coding amongst the programming community.

Awards

Linus Torvald has received dozens of accolades over his lifetime for his contribution to the world. In 2012 he was awarded with the 'Internet Hall of Fame' award in which he was commended for his transformation of the web as well as most recently of being awarded with IEEE Masaru Ibuka Consumer Electronics Award in 2018 for his outstanding contribution to consumer electronics.

It is without doubt that Linus Torvald is by far one of the most influential and noteworthy software engineers, not just of the modern age but in history. Through his inventions he has made a massive impact on people around the world, programmers and non-programmers alike. It is almost impossible to imagine the world which we live in today without Linux and Git.

To quote Linus Torvald himself "I am not a visionary. I'm an engineer. I'm happy with the people who are wandering around looking at the stars but I am looking at the ground and I want to fix the pothole before I fall in." In other words he is a "fixer" and a man who gets things done!

References

https://www.goodreads.com/author/quotes/92867.Linus_Torvalds

<https://www.linuxfoundation.org/blog/2015/04/10-years-of-git-an-interview-with-git-creator-linus-torvalds/>

<https://www.linuxjournal.com/article/5021>

<https://www.linuxjournal.com/article/41>

https://www.ted.com/talks/linus_torvalds_the_mind_behind_linux?utm_campaign=BeepBeepBites%20-%20Nieuwsbrief&utm_source=hs_email&utm_medium=email&hsenc=p2ANq-tz-rGfvhd0oHk-8kmGyLI75G2uAizaZWx8uuafko3ZHHGcz6NRjWo0A590JtETkecPcO7EYU

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

<https://www.wired.com/2012/11/linus-torvalds-isoc/>

http://content.time.com/time/specials/packages/article/0,28804,1970858_1970909_1971691,00.html

<http://www.computerhistory.org/fellowawards/hall/linus-torvalds/>

<https://www.britannica.com/biography/Linus-Torvalds>