

Linux at 30: From Hobby Project to Global Powerhouse

This handout is a narrative summary based on "Linux Turns 30: How a Hobby Project Conquered the World" by Benj Edwards, published on How-To Geek (Sept 17, 2021).

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A Revolution Begins

In the summer of 1991, a Finnish computer science student named Linus Torvalds began tinkering with a personal project. Inspired by MINIX, a small UNIX-like system used for teaching, Torvalds set out to create his own operating system kernel. Working on a modest Intel 386 PC, he posted a now-famous message to the comp.os.minix newsgroup on August 25, 1991, announcing his work on a free operating system. Just a few weeks later, on September 17, 1991, the first version of the Linux kernel—version 0.01—was released to the world.

Humble Origins

Torvalds' project was initially a personal experiment, but it quickly attracted attention from programmers around the globe. In February 1992, he made a pivotal decision: to release Linux under the GNU General Public License (GPL), making it fully open source. This move invited collaboration and innovation, allowing developers worldwide to contribute, adapt, and distribute the software freely.

Milestones in the Making

The 1990s saw Linux evolve from a niche project into a robust operating system. In 1993, major distributions like Slackware and Debian emerged, followed by Red Hat in 1993/1994. The release of Linux kernel version 1.0.0 in 1994 marked a significant step toward maturity. In 1996, the community adopted Tux the penguin as Linux's official mascot, symbolizing its friendly and open nature.

The 2000s brought corporate validation. Red Hat Enterprise Linux launched in 2000, and IBM invested a staggering \$1 billion into Linux development the same year. Ubuntu 4.10 debuted in 2004, making Linux more accessible to everyday users. The rise of mobile and cloud computing further propelled Linux's relevance: Android, based on the Linux kernel, launched in 2007, and Chrome OS followed in 2009.

In a surprising turn, Microsoft declared in 2014 that it 'loves Linux,' a nod to the growing interdependence of open source and enterprise software. In 2019, IBM acquired Red Hat, cementing Linux's role in the enterprise world. And in 2021, Linux quite literally left the planet—powering the Perseverance rover's helicopter on Mars.

Linux Today

Today, Linux is everywhere. It runs the majority of the world's servers, powers Android smartphones, drives supercomputers, and operates in embedded systems, satellites, and even the International Space Station. Despite holding a relatively small share of the desktop market, Linux's influence is undeniable and growing.

Exploring Linux: A Student's Guide

For students and enthusiasts eager to explore Linux, there are more options than ever. You can try Linux using the Windows Subsystem for Linux (WSL), run it in a virtual machine, set up a dual-boot system, or install a user-friendly distribution like Ubuntu or Elementary OS. Each path offers a unique way to experience the power and flexibility of open source computing.

Conclusion

From a modest hobby project to a global technological force, Linux's journey over the past 30 years is a testament to the power of collaboration, curiosity, and community. As future technologists, understanding Linux is not just an academic exercise—it's a gateway to the systems that run our digital world.