American computer scientist Dennis Ritchie

Known As a co-author of Unix and the C programming language, he has played a key role in shaping the modern computing environment. Unix and C provided the software and infrastructure tools that have created much of today's computing environment - from the Internet to smartphones - and therefore have played a central role in shaping the modern world.

Ritchie was born in Bronxville, New York. His father Alistair Ritchie was veteran of Bell Labs. Dennis was born to Alistair and his wife Jean in the New York suburb of Bronxville and grew up in New Jersey, where Bell Labs had an office in Murray Hill. He studied physics and applied mathematics for his bachelor's degree (1963) and computer science for his Ph.D. (1968) at Harvard UniversityHe graduated from Harvard University with a BA in Physics and Applied Mathematics in 1963.

Richie joined Bell Labs' programming department in 1967 and worked on the new Multics operating system. His father, Alistair, had a long career there and co-authored the influential technical book The Design of Switching Circuits (1951). When Multics came to the research organization, he was in crisis. Indeed, many large software projects were in crisis — people were just beginning to realize that writing large software was terribly difficult and costly. In 1969, after four years of development, Bell Labs withdrew from the project. Richie and Multics' other lead programmer, Ken Thompson, were somewhat marginalized by the collapse of the project. Multics was promising, but the operating system was too complex to build. This led them to rethink. They would build a simpler and smaller system, which they would call Unix. Unix is an open source operating system. The developer has many opportunities for his own development

The idea was not immediately appreciated by their managers, and they had to find an outdated computer on which to develop Unix. The machine had only 16 kilobytes of memory, and that was already an incentive to keep things simple. Unix was in development for several months in 1969, and a prototype was launched in early 1970. Their colleges did not immediately dare to pursue UNIX development. However, by offering to write word processing software, Richie and Thompson were able to convince the patent department of Bell Labs to purchase a full-size computer and run Unix on it. They decided to completely rewrite the operating system for the new machine. The first version of Unix was written in computers' own machine code, which was difficult and slow. For the next version, Richie invented a language called C.

C language pedigree

The progenitor was jointly developed at the Universities of Cambridge and London in 1964 and is known as CPL (Combined Programming Language). The CPL never survived, but one of the developers, Martin Richards, visited MIT. There he developed a simpler version of the system implementation language, BCPL (Basic CPL). Thompson and Ritchie decided to use BCPL to write Unix. To do this, they compressed it to 8 kilobytes and renamed it to B. Finally, a new and improved version was developed, called C. This made writing software immeasurably easier, and also made the software portable - so that a program written in C could work on any machine. A new version of Unix was completed in 1973, and since it was written in C, it was also portable. Because the parent company, Bell Labs, was a regulated telephone monopoly, it was prohibited from competing in the computer industry and therefore had no material interest in Unix. This allowed Richie and Thompson to distribute Unix for free to universities and research institutes who liked its clean and economical design. Universities started teaching their students Unix and C, and when they graduated, they brought this culture to industry.