

# Dennis Ritchie, 1941–2011

*Colleagues recall the creator of C and codeveloper Unix, an unassuming but brilliant man who enjoyed playing practical jokes on his coworkers.*

**O**F THE THREE giants in the computer industry who passed away last October, Steve Jobs was easily the most recognizable one. And that is exactly how Dennis Ritchie preferred it.

Even though much of today's digital world is built from tools he created, Ritchie, who authored the C programming language and cocreated Unix with Ken Thompson, never sought the spotlight.

Brian Kernighan, who worked at Bell Labs alongside Ritchie and Thompson for more than 30 years and is now a computer science professor at Princeton University, observes, "Jobs was very out in public, which was one of his strengths. Dennis was a private person and didn't do any self-salesmanship. But the work Jobs did at NeXT and Apple built on what Dennis did because all those programs are fundamentally written in C or derivatives like C++ and Java. Life would be very different without the work Dennis did singlehandedly in just a few months."

C might be Ritchie's crowning achievement as it is regarded as one of the world's two most influential programming languages (the other is Fortran). C, of course, is not a very large language, mainly because the DEC PDP-11 minicomputer Ritchie ran it on was technologically constrained, so there wasn't much room to get fancy, which, Kernighan notes, was fine given Ritchie's minimalistic approach.

"Dennis and Ken worked together on Unix," says Kernighan, for which the duo received the ACM A.M. Turing Award in 1983. "He always said Ken did most of the work with just some of his assistance, but that's characteristically modest on Dennis' part."

Last May, Bell Labs hosted a ceremony in Murray Hill, NJ, in honor of Ritchie and Thompson who had won the Japan Prize. One speaker was



**Ken Thompson (left) and Dennis Ritchie received the National Medal of Technology in 1999 from President Clinton.**

Douglas McIlroy, an adjunct professor of computer science at Dartmouth College, who had been a manager at Bell Labs and knew Ritchie for nearly 50 years ever since Ritchie's first summer job there in 1962.

"Dennis was a fixture at meetings of the Usenix users group," McIlroy noted. "Crowds networking in the corridors would break to pack his talks. Every newcomer wanted to see and hear the man behind the system. Old hands came to listen to the master perhaps even more eagerly. If you read one of his papers, you'll see why. Dennis combines a perfect control of the technical matter with a polished but easy writing style, and an unerring sense of how much to say. That felicity is also on display on his home page, which offers engaging pieces about his work."

But not everything on his Bell Labs home page relates to work. A practical joker, Ritchie also details "Labscam," an elaborate prank that he and colleague Rob Pike pulled on their boss, Nobel prize winner Arno Penzias, in

1989 with the help of magicians Penn and Teller. [See the prank at <http://www.youtube.com/watch?v=fxMKuv0A6z4>.]

His sense of humor also shows in his work. "In perhaps the trickiest part of the Unix code," notes McIlroy, "where a couple of instructions play with hardware registers as if by magic, there is a comment by Dennis that says: 'You are not expected to understand this.' That's been published over and over again on T-shirts."

Ritchie was 70 when he was found dead in his Berkeley Heights, NJ, home. He had been in frail health in recent years after treatment for prostate cancer and heart disease.

"Dennis was thoughtful, he was totally approachable," says McIlroy, "but I think he will best be remembered as an extremely talented, bright guy who created something we absolutely all use—and he never really sought credit for it." □

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