

Television

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SIGNOFF

For These Nerds, It's Beans to Billions

By BEN SISARIO

On July 20, 1969, the Apollo 11 mission landed the first men on the Moon, an event that was the summit of years of research and the beginning of a new era in science. Two months later, another technological landmark was reached, less visible at the time, but in hindsight perhaps just as important. Bit by bit, a single message was arduously transferred from a computer at U.C.L.A. to another at Stanford, hundreds of miles away. It was the birth of the Internet, decades before anyone knew what the Internet was.

"It's another one of those 30-year-old overnight sensations," said Robert X. Cringely, a computer industry columnist and former Stanford professor whose second PBS special, "Nerds 2.0.1: A Brief History of the Internet," will be shown on Wednesday at 8 P.M. on Channel 13. "The P.C. was that way, the



OPB/PBS

fax machine was that way. My career was that way!"

Mr. Cringely, a 21-year veteran of Silicon Valley who was employee number 12 at Apple Computer, has spent much of his career chronicling the storybook rise of the industry and the Gatsbyesque tycoons who run it. His years as an insider columnist for Infoworld got him the connections he needed to write a book, "Accidental Empires" (1992), and a documentary, "Triumph of the Nerds" (1996), a success for PBS that Mr. Cringely says "continues to be a stalwart of pledge drives all across America."

"Nerds 2.0.1," the sequel to "Triumph of the Nerds," is another story of classic American business ingenuity, its three hours filled with astonishing rags-to-riches tales.

Mr. Cringely follows the young entrepreneurs behind Excite, an Internet company that began in a garage five



Courtesy Excite, Inc.

The founders of the Internet company Excite, clockwise from top left: Martin Reinfried, Ryan McIntyre, Ben Lutch, Mark Van Haren, Joe Kraus and Graham Spencer. At left, Robert X. Cringely, the host of "Nerds 2.0.1."

years ago with \$15,000 and a bag of rice and is now worth about \$2 billion, with 650 employees and an impressive 88,000-square-foot building. Each of the six founders, all in their 20's, became instant millionaires when Excite went public in 1996.

We also meet the newly rich behind such familiar computer brand names as Novell, Netscape, America Online and Sun Microsystems. They each have a story to tell about how a simple idea for making computers work better together — and a willingness to work 100 hours a week — resulted in fabulous wealth faster than they could count it.

Mr. Cringely also tells the dark side of the Internet drama, including Microsoft's entrance into the browser wars with a bombastic press conference on Pearl Harbor Day in 1995 and the strange story of Cisco Systems, whose extraordinary success destroyed the marriage of its founders, Sandy Lerner and Leonard Bosack, who were dismissed by the company they had created.

We also get a glimpse of the founding fathers of the Internet, an earnest group of engineers and academics who, working on Government-sponsored projects in the late 1960's, developed the basic

technology and odd terminology that now defines the Net. They gave new meanings to words like "packet," "protocol" and "switch," and perhaps as fate's punishment for confusing us all, they watched from the shadows while younger generations used their invention to make zillions.

To explain some of the jargon that creeps into the program, Mr. Cringely periodically retreats to his garage and dons a lab coat to lead remedial classes in the Cringely Glossary of Geek. ("That's modern Geek," he tells us, "not ancient.") Such a lexicon, it turns out, is necessary to truly appreciate not only the fortunes built by Internet pioneers but also the industry's own tributes to itself, like this poem written by Len Kleinrock, a U.C.L.A. computer scientist, to commemorate the world's first E-mail message, sent from his laboratory nearly 30 years ago:

We cautiously connected and the bits began to flow,

The pieces really functioned! Just why, I still don't know.

Messages were moving pretty well by Wednesday morn,

All the rest is history; packet switching had been born. □