

## Obituaries

## Alan Kotok; with brilliance, wit, he expanded computer world

By Bryan Marquard

GLOBE STAFF

For someone who devised a computer chess program as an MIT undergraduate in the late 1950s, helped create the world's first video game, and held a leadership role with the World Wide Web Consortium, Alan Kotok got his start in an inauspicious fashion — or so he was told.

"There's a family legend, which I don't personally recall," he said in a 2004 oral history, "that my engineering career began at a tender age when I stuck a screwdriver into an electric outlet, and managed to put a notch in the screwdriver while I'm trying to pry it out, as well as sending myself to the other side of the room."

From those beginnings, Mr. Kotok became obsessed with computers, before most people knew they existed, staying on the cutting edge as it moved from hardware to software to the Web. He had "the credentials as a super-geek to command total respect," Tim Berners-Lee, who is credited with creating the World Wide Web, wrote in an e-mail.

Mr. Kotok died May 26 of an apparent heart attack at his house in Cambridge, a few hours after having dinner with his daughter at home for the first time since his wife died almost six months to the day. He was 64.

Mr. Kotok had worked at Digital Equipment Corp. for many years and most recently was associate chairman of the consortium.

"His experience established him as one of the early wise men of computer science," wrote Berners-Lee, director of the consortium.

Still, Mr. Kotok was as much known for his dry sense of humor, and for his ability to take a ribbing. His daughter Leah affectionately called him "King Nerd."

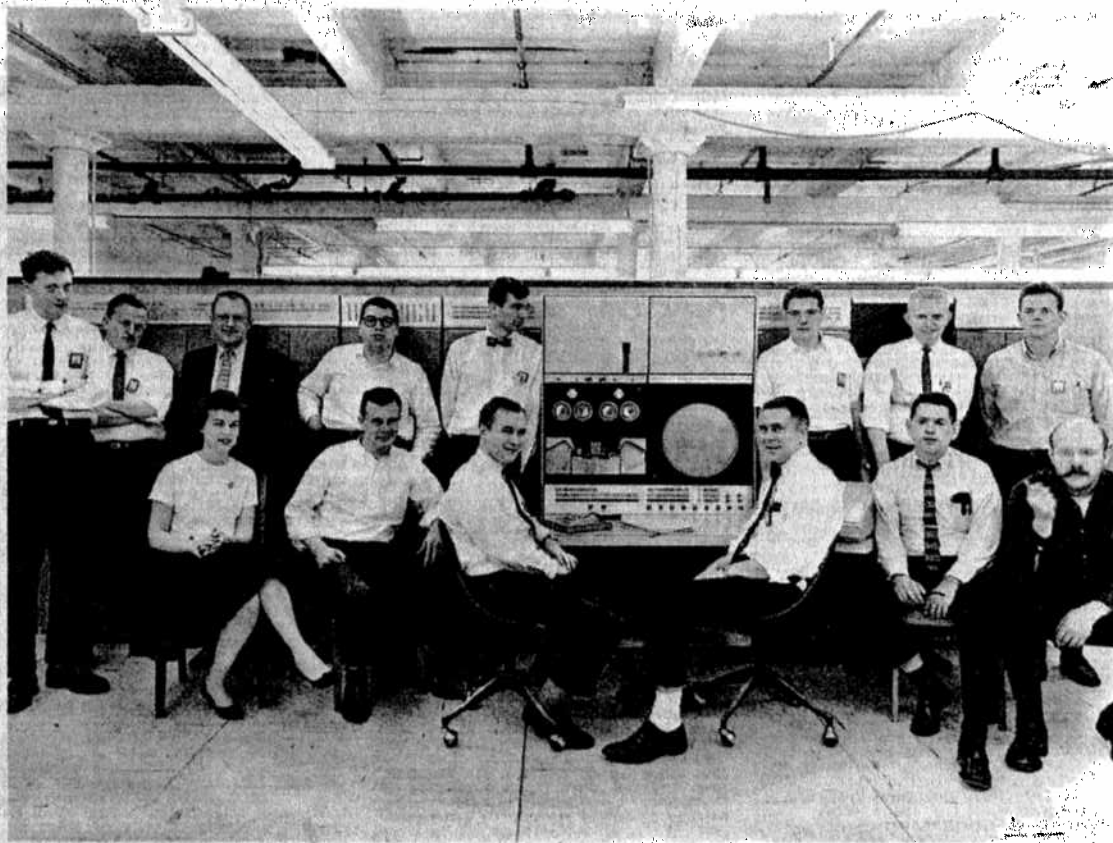
Born in Philadelphia, Mr. Kotok was an only child and grew up in Vineland, N.J., where his father owned a hardware store.

"I was always interested in tinkering around in the store with tools and various things," he said in the oral history for the Computer History Museum of Mountain View, Calif.

Mr. Kotok skipped two grades and arrived at the Massachusetts Institute of Technology when he was 16.

"He certainly was a precocious undergraduate," said Elwyn Berlekamp, a mathematics professor at the University of California, Berkeley, who worked with Mr. Kotok to create the computer chess program when they were MIT classmates.

Arriving at MIT in 1958, Mr. Kotok joined the Tech Model Railroad Club, where he met like-minded students interested in computers. In the spring, artificial intelligence pioneer John McCarthy, then a professor at MIT, taught a computer programming class for freshman.



Alan Kotok (fourth from left in back), with fellow designers of the PDP, one of Digital Equipment Corp.'s early computers.

McCarthy told four students that he had been working on a computer chess program, Mr. Kotok recalled, and asked whether they would take over. Mr. Kotok ended up writing a thesis for his bachelor's degree in electrical engineering on the program.

It was at MIT, where he later received a master's degree, that Mr. Kotok developed his penchant for working late into the night, which often was when computer time was available.

"He was always a night owl," Berlekamp said. "He hardly ever got up before noon."

As an undergraduate, Mr. Kotok began working with several students who collectively developed Spacewar, the first video game, and the first joystick.

After graduating, Mr. Kotok went to work for Digital. He was one of the company's first few dozen employees and stayed for 34 years. He was one of the designers of the company's PDP-6 computers, chief architect of the PDP-10, and technical director for product strategy, according to information cited by the consortium.

When he moved to the consortium in the late 1990s, his duties included managing the systems team and helping bring the organization into developing countries. Mr. Kotok "commanded great respect, but his opinions were always delivered very tactfully," Berners-Lee wrote, "often in fact starting with his characteristic and honest 'with great respect ...'"

"But also there was the delight which everyone he worked with had in him, for his playfulness, his solid loyalty to ideas he thought were important, and his gentle, persistent force for good in the



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Alan and Judith Kotok in Hamburg, Germany.

world," he wrote.

In 1977, Mr. Kotok married Judith McCoy. Though they had known each other for a few years, their romance began after he took a piano class from her. She was on the faculty of the Longy School of Music and they shared a love of compositions from the 16th and 17th centuries — particularly organ music.

Mr. Kotok "decided he might as well learn piano skills," said Alan Frantz of Wayland, a friend and former colleague at Digital. "Judy fairly quickly figured out that this was not just a piano student, this was a future husband."

"The two of them went on organ tours in Sweden and Germany and Italy and Mexico," said their daughter Leah of Ashburnham. "My mother was the musician, but my father considered himself a dilettante — that's the word he used. He loved organs because they were machines as well."

The courtship was his only serious foray into romance, his daugh-

ter said, and he was devastated by his wife's death from a rare cancer on Oct. 27.

Though Leah and her father regularly went to restaurants, May 26 was the first time they had dinner at his home after her mother died. After the meal, "we watched a baseball game and the Red Sox won," she said.

He had become a fan late in life, she said, though his devotion to the Red Sox never matched the fondness he had shared with his wife for centuries-old compositions.

"Organ music moved my father to tears," she said, "especially in recent months."

In addition to his daughter, Mr. Kotok leaves a stepson, Daryl Beck of Greenfield; a stepdaughter, Frederica Beck of Prescott, Ariz.; and two grandchildren.

The family held a private funeral service, and a memorial service will be held at MIT in the fall. Burial will be in Mount Auburn Cemetery in Cambridge.