

KNOWN ERRORS IN NY TIMES OBIT FOR GARY STARKWEATHER

1. Sequence of events

RE: "By the mid-1970s, Mr. Starkweather's printer could plug into an entire network of Altos, printing documents from across the lab at a rate of a page a second. After the lab split into two buildings, he and a colleague built a system that could transmit print jobs across the street wirelessly. It was, in many ways, a blueprint for the office of today."

Actually the (laser) link across Foothill Expressway was before Gary's printer was networked and still experimental (Ref: New Yorker article) in the Spring of 1972. Later after the printer was configured with an Alto as THE Ethernet networked printer for the PARC facility there was a fiber optic link pulled between the two PARC buildings across Coyote Hill Rd. to hook the two buildings Ethernets together.

2. Photo caption

What is shown in the photo in the obituary article is a Dover printer, not a 9700 as claimed in the caption. The Dover was a 1 page per second machine based on the Xerox 7000 and was a refined version of Gary's original 7000 based printer. It was developed at PARC. About 40 of these were built by the PARC Model Shop operation (housed at the corner of California Ave. and Hanover St. in Palo Alto). The 9700 was a larger unit that operated at 2 pages per second and was based on the Xerox 9200, a completely different print engine from the 2400/3600/7000 family of engines. It was developed in the Xerox Product Development organization. See photo immediately below. The 9700 was the machine that was sold to the general public and made so much money.

← → ↻ 🏠 postalmuseum.si.edu/americasmailingindustry/Xerox.html

1977—Xerox introduces its first laser printer, the 9700, designed for printing from mainframe computers at speeds as fast as 2 pages per second. It replaces slower, lower quality line printers that use continuous pin-fed paper to produce statements, invoices and reports and introduces many of the capabilities that enable the high degree of automation in modern print and mail shops.



The Xerox 9700

Gary Starkweather, Inventor of the Laser Printer, Dies at 81

He originally received pushback from his employer, Xerox. But his invention eventually became nearly ubiquitous in every office and home.



Gary Starkweather in the early 1970s with a version of the laser printer. He built the first working model in 1971 in less than nine months; by the 1990s, it was a staple of offices around the world.
via Xerox PARC



By Cade Metz

Jan. 15, 2020

Gary Starkweather, an engineer and inventor who designed the first laser printer, bringing the power of the printing press to almost anyone, died on Dec. 26 at a hospital in Orlando, Fla. He was 81.

His wife, Joyce, said the cause was leukemia.

Mr. Starkweather was working as a junior engineer in the offices of the Xerox Corporation in Rochester, N.Y., in 1964 — several years after the company had introduced the photocopier to American office buildings — when he began working on a version that could transmit information between two distant copiers, so that a person could scan a document in one place and send a copy to someone else in another.

He decided that this could best be done with the precision of a laser, another recent invention, which can use amplified light to transfer images onto paper. But then he had a better idea: Rather than sending grainy images of paper documents from place to place, what if he used the precision of a laser to print more refined images straight from a computer?

“What you have to do is not just look at the marble,” he said in a talk at the University of South Florida in 2017. “You have to see the angel in the marble.”

Because his idea ventured away from the company’s core business, copiers, his boss hated it. At one point Mr. Starkweather was told that if he did not stop working on the project, his entire team would be laid off.

“If you have a good idea, you can bet someone else doesn’t think it’s good,” Mr. Starkweather would say in 1997 in a lecture for the Computer History Museum in Mountain View, Calif.

But he soon finagled a move to the company’s new research lab in Northern California, where a group of visionaries was developing what would become the most important digital technologies of the next three decades, including the personal computer as it is known today.

At the Palo Alto Research Center, or PARC, Mr. Starkweather built the first working laser printer in 1971 in less than nine months. By the 1990s, it was a staple of offices around the world. By the new millennium, it was nearly ubiquitous in homes as well.

“We still use the same fundamental engine to print billions of pages a day,” said Doug Fairbairn, a staff director at the Computer History Museum who worked alongside Mr. Starkweather at PARC. “It was all Gary’s idea.”



The Xerox 9700 Electronic Printing System, an early version of the laser printer. It was introduced in 1977. via Xerox PARC

Gary Keith Starkweather was born on Jan. 9, 1938, in Lansing, Mich., the only son of Richard and Crystal Starkweather. His father owned a local dairy; his mother was a homemaker. Their home was near a junk shop, where Gary would bargain for old radios, washing machines and car parts that he could tinker with in the basement, taking them apart and then putting them back together.

“As long as I didn’t blow up the house, I was allowed to do whatever I wanted down there,” he said in a 2010 interview with the Computer History Museum.

While studying physics at Michigan State University, he met Joyce Attard, a nursing student two years behind him. They married in 1961 and moved to Rochester so that he could join Bausch & Lomb, which at the time made lenses for eyeglasses, cameras, microscopes and other equipment.

After several of his colleagues were laid off, they moved to Xerox, and he followed them.

His move to PARC came after he read about the lab in the company’s newsletter. After visiting PARC in 1970, he phoned his wife in cold Rochester and asked how she felt about moving to sunny Palo Alto. Her response, he recalled, was, “I’ll have the furniture in the street by the time you get home.”

As he developed his printer, his new colleagues built a personal computer that could drive it: the Alto, a machine that eventually gave rise to the Apple Macintosh and Microsoft Windows PCs.

“One of the goals of the Alto was to build a computer that could work with images that were as flexible as those made with all the tools of graphics arts that had been developed over the previous 500 years,” Butler Lampson, who founded the Alto project, said in an interview. “We made it possible to do that on the screen. And Gary made it possible to take the information on the screen and put it onto paper.”

By the mid-1970s, Mr. Starkweather’s printer could plug into an entire network of Altos, printing documents from across the lab at a rate of a page a second. After the lab split into two buildings, he and a colleague built a system that could transmit print jobs across the street wirelessly. It was, in many ways, a blueprint for the office of today.

“A 60-page document could be printed in the time you spent walking to the printer to get it,” Alan Kay, another key PARC researcher who helped design the fonts used by the printer, said in an interview. “No one had ever experienced that before.”

In addition to his wife, Mr. Starkweather is survived by their daughter, Amy Beth Oosterhouse; their son, Keith; and four grandchildren.

After leaving Xerox, Mr. Starkweather moved to Apple and then Microsoft, the two biggest companies of the computer age. In 1997, while still at Apple, he gave a speech about the rise of the laser printer.

The first successful product sold by Xerox in the late 1970s cost more than \$5,000 to manufacture, he said. He then held up a circuit board that drove the printers of the late 1990s. It cost just \$38, making his product accessible to nearly any home or business.

That was not something he had ever imagined.

“A little work takes you a long way,” he said. “Even as technologists, when we think we are on the edge, we are not on the edge.”

Cade Metz is a technology correspondent, covering artificial intelligence, driverless cars, robotics, virtual reality, and other emerging areas. He previously wrote for Wired magazine. @cademetz

A version of this article appears in print on Jan. 16, 2020, Section A, Page 20 of the New York edition with the headline: Gary Starkweather, Inventor of the Laser Printer, Is Dead at 81