

Crossing the Digital Divide (v60)

“beginnings”

By Joseph Feigon for the Observer

Social Media (Facebook, Twitter, Instagram, Reddit, Google+) shows us how bits of information can reach huge audiences, quickly. Traditional news due diligence often lost when anyone can publish live video from nearly anywhere with a cellular or wireless connection. This is 2017.

We certainly owe gratitude and thanks to Vincent Cerf, the architect behind today’s Internet. The Public Internet was “born” on January 1, 1983, when ARPANET converted to TCP/IP. Mr. Cerf remains active and vocal as the Internet adapts to a changing world, IP version 6, and a growing demand for bandwidth.

One of the visionaries behind the Internet passed this week. John Markoff of the New York Times brilliantly captures Robert “Bob” Taylor’s role and contribution to the ‘world wide web’.

<https://www.nytimes.com/by/john-markoff>

Like many inventions, the internet was the work of countless hands. But perhaps no one deserves more credit for that world-changing technological leap than Robert W. Taylor, who died on Thursday at 85 at his home in Woodside, Calif.

Indeed, few people were as instrumental in shaping the modern computer-connected world as he.

His seminal moment came in 1966. He had just taken a new position at the Pentagon — director of the Information Processing Techniques Office, part of the Advanced Research Projects Agency, known as ARPA — and on his first day on the job it became immediately obvious to him what the office lacked and what it needed.

At the time, ARPA was funding three separate computer research projects and using three separate computer terminals to communicate with them. Mr. Taylor decided that the department needed a single computer network to connect each project with the others.

“I went to see Charlie Herzfeld, who was the head of ARPA, and laid the idea on him,” Mr. Taylor recalled in an interview with The Times. “He liked the idea immediately, and he took a million dollars out of the ballistic missile

defense budget and put it into my budget right then and there.” He added, “The first funding came that month.”

His idea led to the Arpanet, the forerunner of the internet.

A half-decade later, at [Xerox](#)’s storied Palo Alto Research Center in Northern California, Mr. Taylor was a key figure in another technological breakthrough: funding the design of the Alto computer, which is widely described as the forerunner of the personal computer.

Mr. Taylor even had a vital role in the invention of the computer mouse. In 1961, at the dawn of the space age, he was about a year into his job as a project manager at the [National Aeronautics and Space Administration](#) in Washington when he learned about the work of a young computer scientist at Stanford Research Institute, later called SRI International.

The scientist, Douglas Engelbart, was exploring the possibilities of direct interaction between humans and computers. Mr. Taylor decided to pump more money into the work, and the financial infusion led directly to Mr. Engelbart’s invention of the mouse, which would be instrumental in the design of both MacIntosh and Microsoft Windows-based computers. ([Mr. Engelbart died in 2013.](#))

“Any way you look at it, from kick-starting the internet to launching the personal computer revolution, Bob Taylor was a key architect of our modern world,” said Leslie Berlin, a historian at the Stanford University Silicon Valley Archives project.

We celebrate visionaries who’ve made it possible to enjoy Open standards, Public roadways, Point and Click navigation, and Voice recognition. The Internet was engineered to survive war and physical damage, and designed to provide a free-flow conduit for all sorts of data. Private networks and Public alike, all use common roadways, central exchanges, and international gateways. The language of the Internet remains TCP, regardless of the content. Roughly half the world’s population has Internet access; more than 85% of the North American population has access. With almost every form of human communication using the Internet as a transport and delivery mechanism, the importance of universal access becomes obvious.