July 16th

Reynold B. Johnson

Born: July 16, 1906;

Minnesota
Died: September 15, 1998

Johnson has been called the Father of the Hard Disk Drive [Sept 4], but he was also a prolific inventor in other areas, producing an electromechanical device that automatically graded pencil-marked multiple-choice tests, and the microphonograph technology used in the Fisher Price "Talk to Me" books.

His work on hard drives began in 1952 when IBM tasked Johnson with founding the company's West Coast lab in San Jose to study more efficient ways of storing and retrieving data. His team began by experimenting with rotating drums, but soon switched to magnetic disks.

IBM sold Johnson's first disk drive to Crown Zellerbach (a US paper company) in 1956. It consisted of 50 twenty-four inch-diameter double-sided aluminum magnetic disks, weighing a ton, and offering just 5 MB of storage.

Daniel Singer Bricklin

Born: July 16, 1951;

Philadelphia, Pennsylvania

While a graduate student at Harvard Business School in 1979, Bricklin teamed up with Bob Frankston [June 14] to create the first business spreadsheet program, VisiCalc [May 11] [Oct 19]. They also founded Software Arts [Jan 2] to develop and sell the product.

While at high school, Bricklin wrote a program for the Wharton business school that graded standardized tests, and his "WHARTFOR" FORTRAN macro language won a national science prize for students.

Dan Bricklin (2007). Photo by Betsy Devine. CC BY 2.5.

After studying computing at MIT, Bricklin worked at DEC [Aug 23] as project leader for their WPS-8 word processing software, and on a video editing system for computerized typesetting.

It was after he returned to study at Harvard that he had the idea for spreadsheets while attending a class where the professor drew and manipulated a financial model by hand on a blackboard.

NSFNET

July 16, 1986

The National Science Foundation Network (NSFNET) went live on this day, initially linking together five US supercomputer centers:

- the John von Neumann [Dec 28] Center at Princeton;
- the San Diego Supercomputer Center;
- the National Center for Supercomputing Applications (NCSA [Jan 15]);
- the Cornell Theory Center;
- the Pittsburgh Supercomputing Center.

NSFNET was primarily an academic network that bridged the eras between the decommissioning of the ARPANET [Oct 29] and CSNET [May 00], and the rise of the modern Internet.

One result was that Ed Krol authored one of the first Internet guidebooks, "Hitchhiker's Guide to the Internet" (1987), to help NSFNET users understand its capabilities. The book's name is an obvious reference to the works of Douglas Adams [March 8].

When ISPs for commercial traffic, such as Alternet, PSINet, and CERFNet, began to emerge [Nov 00], most of them routed traffic over the NSFNET. The increased traffic led to a series of upgrades, and ultimately the creation of ANSNET, an important step toward the commercialization of the Internet.

By the mid 1990's, the Commercial Internet eXchange (CIX [Aug 2]), Metropolitan Area Exchanges (MAEs), and Network Access Points (NAPs) were becoming the primary interconnections between smaller networks, and NSFNET was decommissioned on April 30 1995.

LISTSERV

July 16, 1986

Éric Thomas developed the first automated mailing list manager, the Revised LISTSERV (aka LISTSERV), while still a student at the Ecole Centrale in Paris. It allowed a user to send an email to a list, which then sent it on to all the subscribers to that list. The process of joining and leaving a list was also automated.

It was called "Revised" since it was based upon Bitnic LISTSERV (1984–1986) which supported mailing lists on IBM mainframes. Bitnic was developed by Ira Fuchs, Daniel Oberst, and Ricky Hernandez in 1984 for the BITNET network [May 5], and provided functionality similar to UNIX Sendmail [Sept 2].

LISTSERV was freeware from 1986 through 1993 but later

became a commercial product of L-Soft, a company founded by Thomas.

The Magic School Bus

July 16, 1994

Microsoft released “The Magic School Bus Explores the Human Body”, the second CD game based on "The Magic School Bus" books and TV series. The destination for this field trip are the insides of one of the students, Arnold Perlstein. The bus visits 12 of his organs, including the small and large intestines.

Before the tour began, there were several reminders given to the CD's user not to try driving a real bus through the human body. One is phrased as the tricky question: "A school bus can enter someone’s body and kids can go on a tour. True or false?"

Amazon

July 16, 1995

Amazon.com officially opened for business, selling books online.

Jeff Bezos [Jan 12] had quit his job in finance in 1994, and some time later rented a house at 10704 NE 28th Street in Bellevue, Washington where Amazon was born (in the garage).

The house where Jeff Bezos founded Amazon. (c) John L. Scott Real Estate.

The birth was problematic – Bezos held nearly 60 investment meetings with family members, friends, and potential investors in an attempt to persuade them to support his business idea. He failed to convince 38 of them.

The biggest winners were his parents, Mike and Jackie, who put in $300,000, in return for 6% of the company. “It couldn’t happen to two nicer people,” Bezos later said of his parents’ windfall.

Bezos incorporated the company as “Cadabra” on July 5, 1994, but changed the name after a lawyer misheard it as “cadaver”. In September, he purchased the URL Relentless.com and briefly considered calling the site "Relentless", but friends told him the name sounded somewhat sinister. Bezos settled on “Amazon” because it sounded “exotic and different”, and was by far the biggest river in the world.

Shel Kaphan was Amazon’s first employee, hired to set up the website, creating all the necessary tools, such as a shopping cart, from scratch. He later recalled, "I worked seven days a week for three months straight, and they weren’t 8-hour days."

The website initially ran on three SPARC workstations [April 9] set up to ring a bell each time there was a sale. Shipments were packed into boxes on a desk made out of a spare door.

The first book sold was "Fluid Concepts & Creative Analogies" by Douglas Hofstadter [Feb 15]. It was purchased by John Wainwright on April 5, 1995. He later recalled, "I think I ordered the book over a T-1 connection at work. I was working at Kaleida Labs [Oct 2], the Apple/IBM joint venture, at the time." He still has the book, and original purchase order (for $27.95). His name also lives on at Amazon -- the Amazon Wainwright building in Seattle is named in his honor.

There was a “friends and family” soft launch in the spring of 1995, which included Eric and Susan Benson, a couple who worked at Netscape at the time. Susan added Amazon to Netscape's “What’s New” and “What’s Cool” pages, and because the name started with an A, lots of people saw it.

Within two months Amazon was selling $20,000 worth of books per week. In 2019, it generated $280 billion in ecommerce sales.

Plan 9 Released

July 16, 1995

"Plan 9 from Bell Labs" was a 'better' UNIX, extended to run on distributed systems. Whereas in UNIX only devices were treated as files, Plan 9 took this further, also viewing processes, network connections, and shell environments as files. It was easily portable across different architectures, and employed Unicode rather than ASCII [June 17].

The Plan 9 team was initially led by Rob Pike [Nov 10], Ken Thompson [Feb 4], Dave Presotto, and Phil Winterbottom, with support from Dennis Ritchie [Sept 9]. Over the years, many notable developers made contributions, including Brian Kernighan [Jan 1], Tom Duff [Dec 8], Doug McIlroy [April 3], and Bjarne Stroustrup [Dec 30].

Bell Labs began shipping the OS to universities in 1992. Three years later, on this day, it was made available commercially via the book publisher, Harcourt Brace.

The name "Plan 9" is a reference to the Ed Wood's 1959 cult sci-fi film "Plan 9 from Outer Space", often voted the worst movie ever. Glenda, the mascot for the OS (drawn by Renée French), is presumably a reference to another dire Wood's film, "Glen or Glenda".

In the mid-1990s, Plan 9 was set aside in favor of Inferno, a distributed OS based on ideas gained from Plan 9's development. Its name, and many of its associated programs, were inspired by a much more classical source: Dante

Alighieri's "Divine Comedy", a 14th century epic poem [Jan 1].