Sept. 18th

James William Cooley

Born: Sept. 18, 1926;

New York City
Died: June 29, 2016

In 1965, Cooley was the co-creator with John Tukey [June 16] of the Fast Fourier Transform (FFT) which divides a signal into its component sinusoidal oscillations, each with its own amplitude and phase. The FFT turns out to widely applicable in engineering, music, science, and mathematics, and was included in the "Top 10 Algorithms of the 20th Century" by the IEEE journal *Computing in Science & Engineering* in 2000.

The algorithm earns its "fast" labeling by factorizing its input data matrix into a product of sparse (mostly zero) factors which greatly reduces the complexity of the calculations.

The motivation for Cooley and Tukey's work was concern over how to verify a nuclear arms treaty with the Soviet Union. Verification would only be practical using sensors which could quickly detect anomalies based on Fourier transforms.

John David McAfee

Born: Sept. 18, 1945;

US army base, UK
Died: June 23, 2021

McAfee founded McAfee Associates in 1987, and ran it until 1994. The company achieved early success with McAfee, the first commercial antivirus software.

His interest in computer viruses dates from the 1980s, while he was employed by Lockheed. He received a copy of the Brain virus [Jan 19] and began developing software to fight it. He later claimed that he wrote the program "in a day and a half" and that "four million people were using it within a month." In 2012, when asked if he personally used McAfee anti-virus, he replied: "I take it off," and, "It's too annoying."

On March 27, 2017, it was announced that Johnny Depp might portray McAfee in a movie provisionally titled "King of the Jungle" focusing on McAfee's colorful life in Belize. He abruptly departed the country in 2012 while in disguise after police began investigating him over his neighbor's death. McAfee has said many times that he had no connection with the crime.

Thomas Albert DeFanti

Born: Sept. 18, 1948;

Ohio

DeFanti is a computer graphics pioneer, who co-founded the Electronic Visualization Laboratory (EVL) with Daniel J. Sandin [Nov 14] at the University of Illinois in Sept. 1973. He's also known for his GRASS language, a 3D real-time animation system based around vector graphic which was popular throughout the 1970s. For example, Larry Cuba used it to create the "Attacking the Death Star" animation for "Star Wars" ([May 4] 1977)

Other work carried out at EVL included the first data glove (1977) and the CAVE Automatic Virtual Environment (1992).

Thomas G. Lane

Born: Sept. 18, 1955;

Madrid, Spain

Lane was the organizer of the Independent JPEG [three entries on] Group (IJG), which developed and maintains libjpeg, a widely-used library containing a JPEG decoder, encoder and other utilities.

He was also the co-author, with Thomas Boutell, of the Portable Network Graphics (PNG) Specification [Oct 1], and is a member of the Tagged Image File Format (TIFF) advisory committee.

In a 2000 survey, he was one of the top ten contributors to Open Source software [Feb 3].

The Traitorous Eight

Sept. 18, 1957

Julius Blank, Victor Grinich, Jean Hoerni, Eugene Kleiner [May 12], Jay Last, Gordon Moore [Jan 3], Robert Noyce [Dec 12] and Sheldon Roberts resigned from Shockley Labs to found Fairchild Semiconductor [Oct 1].

They group later became known as "The Traitorous Eight"; it's not known who coined the phrase, although William Shockley [Feb 13] is on record as describing their departure as a "betrayal". Not surprisingly, they preferred the title, "The California Group".

The "Traitorous" Eight. From left to right: Gordon Moore, C. Sheldon Roberts, Eugene Kleiner, Robert Noyce, Victor Grinich, Julius Blank, Jean Hoerni and Jay Last. Source (WP:NFCC#4) 1960.

While Shockley was an experienced researcher and teacher, and had received a

Nobel Prize in Physics, colleagues generally agreed that he was a poor manager and businessman. For instance, during one dispute at Shockley Labs, he had wanted everyone in to take a lie detector test, though the idea was later scotched.

The labs were technically a subsidiary of Beckman Instruments, owned by the noted chemist Arnold Orville Beckman. On May 29, 1957 a group led by Gordon Moore presented Beckman with an ultimatum: solve the “Shockley problem” or they'd leave. In June 1957, Beckman installed a new manager between Shockley and the team, but it was too little too late.

At one of the meetings of “The California Group”, Alfred Coyle (who helped finance Fairchild's setup) pulled out newly minted $1 bills and laid them on the table. “Each of us should sign every bill”, he said. These dollar bills, covered with signatures, would become their contracts with each other.

NeXTcube/ NeXTstation

Sept. 18, 1990

NeXT [Oct 12] released the NeXTcube and NeXTstation one year after the introduction of the NeXTSTEP OS.

The NeXTcube was the successor to the original NeXT Computer, with a faster 68040 chip, lots of software, and a laser printer. However, it proved to be too expensive and had little impact commercially. However its place in history is assured by being the the brand of computer employed by Tim Berners-Lee [June 8] to create the first Web browser [Dec 25].

The NeXTstation was positioned as a smaller, less costly alternative to the NeXTcube. It was around the same speed as an Apple Quadra 900, about the same price as a Mac IIsi [March 19], but with more memory, a larger hard drive, a larger display, and Ethernet [June 23] support (the IIsi still used LocalTalk). It was nicknamed “the slab”, since its pizza form factor contrasted quite sharply with the original NeXT Computer’s cuboid.

The NeXTcube workstation at the Musée Bolo, EPFL, Lausanne. Photo by Rama. CC BY-SA 2.0 fr.

Design considerations obviously took precedence over technical concerns, since the case's thinness meant that it couldn't include NeXTbus slots.

JPEG Released

Sept. 18, 1992

JPEG (JAY-peg) is a commonly used lossy compression method for digital images, which organizes a picture into 8x8 pixel blocks and simplifies the data in each block. This reduces the image's quality, but usually in a way invisible to the human eye. As a result, JPEG typically achieves 10:1 compression with little perceptible loss in picture quality, but isn't so great at handling graphics containing text or lines.

The JPEG acronym stands for "Joint Photographic Experts Group", which was formed in 1986 by the CCITT and ISO [Feb 23] standards organizations.

Internet World Exposition

Sept. 18-22, 1995

At the "Computing in High Energy Physics" (CHEP) conference in Rio de Janeiro, Carl Malamud [July 2] announced his plan to establish a year-long online World’s Fair website, called the ”Internet 1996 World Exposition” (`http://park.org`). It was managed by the non-profit Internet Multicasting Service (IMS) , and received over five million visitors during 1996.

Starting from a “Central Park,” users could visit a schoolhouse, a “future of the media" pavilion, and over 70 country pavilions. Egypt’s included classes on how to translate hieroglyphics, and the Dutch set up a virtual “Cow Simulator.”

The site hosted special events throughout the year, including a techno-folk opera about the Luddite movement [March 11], and “24 Hours in Cyberspace” [Feb 8].

The exposition concluded in December. At the Ikuta Shrine in Kobe, the fair's archives were written to a CD-ROM, blessed by a Shinto priest, and buried in a time capsule.

ICANN

Sept. 18, 1998

The Internet Corporation for Assigned Names and Numbers (ICANN) was created by Jon Postel [Aug 6] as a non-profit to oversee Internet domains on behalf of the US government.

Although founded on this day, it was incorporated in California on Sept. 30, with Esther Dyson as the founding chairwoman, after the unexpected death of Postel.

On March 10, 2016, ICANN signed a historic agreement to remove ICANN and IANA [March 2] from the US government's control and oversight, which came into effect on Oct. 1.

ICANN was preceded by the NIC (Network Information Center [March 2]) and InterNIC (run by NSI [Sept 14]).

For more Internet organizations (namely IETF and ISOC), see [Jan 17] and [Jan 1].

NIMDA

Sept. 18, 2001

The NIMDA computer worm ("admin" spelt backwards) began to infect computers across the Internet, spreading though emails sent to systems running MS Windows 2000 [Feb 17].

A combination of five attack techniques made it the quickest spreading worm yet. By one measure, it only took 22 minutes from the moment NIMDA hit the Internet to reach the top of the list of reported attacks.

It was later estimated to have caused about $500 million of damage to corporate networks and other services.

Roomba Introduced

Sept. 18, 2002

The iRobot Roomba's aim in life was to autonomously clean a room while detecting and avoiding obstacles. Early Roombas relied on a few simple algorithms, such as spiral cleaning, room crossing, wall-following, and random changes in direction after bumping into something. These techniques were based on MIT researcher and iRobot CTO Rodney Brooks' [Dec 30] view that robots should be modeled on insects – equipped with simple controls tuned to their environment, along with a dustpan and brush.

The Roomba 980, released in Sept. 2015, was a major upgrade, utilizing a vSLAM navigation system, to create a map of the room being cleaned.

Other Roomba's were made more suitable for hacking by having their behavioral code and sensors accessible over the network. The iRobot Create went so far as to discard its vacuum cleaner, leaving ample space for mounting devices such as cameras, lasers, and Samurai swords.