Oct. 4th

John Vincent Atanasoff

Born: Oct. 4, 1903;

Hamilton, New York
Died: June 15, 1995

Atanasoff began designing the world's first electronic digital computer in 1937-38, specifically to solve simultaneous linear equations. It utilized binary arithmetic, and rotating drum memory [Sept 00].

In March 1939 he made a formal application for funding to Iowa State College which approved a grant of $650. Atanasoff began implementing his design with the help of Clifford Berry [April 19], a graduate student, in the basement of the college's Physics building,

By Oct. 1939 they had a simple prototype which could add and subtract, and utilized the drum memory. They parlayed this into funding from the Statistics lab to build a full-sized model, the Atanasoff-Berry Computer (ABC).

On [Aug 14] 1940, Atanasoff finished a paper describing the ABC's design, and the device became public via a newspaper report on [Jan 15] 1941. However, Atanasoff stopped work on the machine in 1942 due to more pressing WWII duties.

In 1948 the new head of Physics, believing that work on the ABC would never be resumed and needing the space in the basement, had it dismantled.

Although the ABC appeared several years before the ENIAC [Feb 15], the ENIAC was a general purpose computing device, and became fully operational. The ABC also predates Konrad Zuse's Z3 in Berlin [May 12] by almost a year, but for the same reasons the Z3 is commonly deemed the first general purpose computer.

However, the Z3 used relays rather than vacuum tubes, so wasn't technically "electronic" but rather "electromechanical".

This kind of definitional hair-splitting led to court cases. On [Oct 19] 1973, Judge Earl Larson ruled that "Eckert and Mauchly did not themselves first invent the automatic electronic digital computer, but instead derived that subject matter from one Dr. John Vincent Atanasoff."

A working ABC replica was completed in 1997 by staff and volunteers at Iowa State.

Maurice Karnaugh

Born: Oct. 4, 1924;

New York City

Karnaugh developing the Karnaugh map (1954) as well being granted patents for Pulse-code modulation (PCM) and magnetic logic circuits.

The Karnaugh map has become a fundamental technique for simplifying Boolean algebra expressions. It borrows ideas from Edward Veitch's charts, which were a rediscovery of Allan Marquand's [Dec 10] logical diagrams of the 1880's. For these reasons, Veitch charts are sometimes known as Marquand–Veitch diagrams, and Karnaugh maps are called Karnaugh–Veitch maps.

PCM is a method used to digitally represent sampled analog signals, and has become a standard for digital audio. Karnaugh was one of many contributors to the technology, and it may be noted that the National Inventors Hall of Fame honored Bernard M. Oliver and Claude Shannon [April 30] as PCM's inventors.

Gregory Lawrence Chesson

Born: Oct. 4, 1945;

Atlanta, Georgia
Died: June 28, 2015

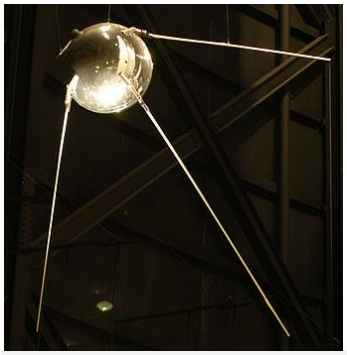
Chesson has been called the godfather of networking. His many contributions include: multiplexing, flow-controlled channels, the original uucp packet driver [May 12], and the first kernel- and user-level software for Datakit [June 8], a predecessor to today's ATM networks (Asynchronous Transfer Model, not Automatic Teller Machines). He was the inventor of the Xpress Transfer Protocol (XTP) for high-speed networks, which was adopted as a military standard for real-time networks.

Chesson was an accomplished musician – primarily on drums and piano. At various times, he toured with several jazz and R&B groups, including *Wayne Cochran and the C.C. Riders*, and the Woody Herman jazz orchestra (aka *The Thundering Herd*).

Sputnik

Oct. 4, 1957

The Soviet Union launched Sputnik I, the first man-made satellite. The US government was badly shaken by the Soviet's technological coup, and responded by pouring billions of dollars into research, including support for ARPA [Feb 7] and NASA [Aug 25].



Sputnik 1 Exhibit. National Museum of the US Air Force. US Air Force photo.

HP 9100 Advertised

Oct. 4, 1968

The journal *Science* ran an HP ad for the first programmable scientific desktop calculator which included the words "the new Hewlett-Packard 9100A personal computer."

Some historians cite this as the first published use of the phrase "personal computer," although John Mauchly [Aug 30] arguably got there first on [Nov 3] 1962. Also, HP usually called the 9100A a calculator because, as Bill Hewlett [May 12] said, "If we had called it a computer, it would have been rejected by our customers' computer gurus because it didn't look like an IBM."

The HP 9100A. Photo by Rama. CC BY-SA 2.0 fr.

The 9100A marked the beginning of HP's long history of using Reverse Polish Notation (RPN), which allows complex math to be written without the use of parentheses. However, the Friden EC-130 [June 00] was the first to use RPN.

The 9100A also borrowed ideas from Thomas E Osborne's "Green Machine" [Dec 24] who was employed as a consultant. Also, after some legal wrangling, HP ended up having to pay $900,000 in royalties to Olivetti, after adopting some features from its Programma 101 [April 21].

HP-41C

Oct. 4, 1979

The HP-41C was the first handheld programmable calculator with an alphanumeric display. It also included a programming language called FOCAL (as in "Forty-One CAlculator Language") which became notorious for supporting the computed GOTO [May 11].

Nevertheless, a large programming community grew up around the device, creating various expansion modules (and a version of "Hunt the Wumpus" [April 00]). Hackers also discovered a way to exploit a bug to create new programming instructions, which was employed to create sounds, new characters, and animations. Most of these activities were coordinated by the PPC (Personal Programming Center) club and its president, Richard J. Nelson. The group published the *PPC Journal*, and created software for several early HP programmable calculators, including the HP-67 and HP-65 [Jan 19].

In its Dec. 1980 issue, BYTE [Sept 3] described the HP-41C as "the most versatile machine ever".

Several space shuttle mission were equipped with HP-41C's as backups for performing calculations during an emergency. For shuttle stories, see [Jan 22], [Feb 24], [March 11], [Apr 00], [Apr 10], [Aug 9].

FSF

Oct. 4, 1985

Richard Stallman [March 16] started a non-profit corporation called the "Free Software Foundation" (FSF) to promote the freedom to create, distribute and modify software. More succinctly, it explains the concept of "free software" with the line, "think of free as in free speech, not as in free beer."

FSF also took over the management of Stallman's GNU project [Sept 27], and became the enforcer for the GNU General Public License, the GPL [Dec 16].

The FSF also sponsors campaigns related to software freedom, including fighting against Digital Rights Management (DRM), which the FSF prefers to call "Digital Restrictions Management".

Microsoft Home

Oct. 4, 1993

Software titles put out under the "Microsoft Home" banner brought multimedia to Windows (and the Mac). They included "Microsoft Flight Simulator" [Nov 1] and various Entertainment Packs [May 22], reference titles such as "Microsoft Encarta" [March 22], Bookshelf, and Cinemania, and home productivity champs such as "Microsoft Bob" [March 31]. More than 60 products were available by 1994.

3DO Released

Oct. 4, 1993

The 3DO was the idea of Trip Hawkins, the founder of Electronic Arts [May 27] and designed by Dave Needle and R.J. Mical (who were responsible for the Commodore Amiga [June 23] and the Atari Lynx [Sept 1]). The 3DO wasn't a physical console, but rather a series of video game/entertainment standards.

Panasonic was the first company to produce an actual 3DO system, and despite a highly promoted launch (including being named *Time* magazine's "1993 Product of the Year") and possessing a host of cutting-edge technologies, its high price and an oversaturated console market limited its success.

Also, the 3DO's claim to being the most advanced console was quickly lost with the launches of the Sony PlayStation [Dec 3] and Sega Saturn [Nov 22], and it was discontinued in late 1996.

Samy Worm

Oct. 4, 2005

The Samy (aka JS.Spacehero) worm attacked MySpace [Aug 1], and within just twenty hours of its release, over one million users had been infected. It still holds the title for the fastest spreading virus in history.

When a user viewed someone's infected profile, the worm would replicate and plant itself in that person's profile. It then displayed the string "but most of all, samy is my hero".

MySpace would later file suit against the virus' creator (who's first name was Samy). He pleaded guilty to felony charges in exchange for three years of probation.

WikiLeaks Established

Oct. 4, 2006

WikiLeaks is a non-profit organization that publishes secrets, leaks, and classified media provided by anonymous sources. Julian Assange [July 3] is generally described as its founder, editor-in-chief, and director.

Wikileaks logo. CC BY-SA 3.0.

WikiLeaks first became widely known when it began uploading over 200,000 US diplomatic cables on [Nov 28] 2010. Other prominent releases have included: the Afghan War Diary, the Iraq War Logs, the Guantánamo Bay cables, and the Panama Papers.

Assange has suggested on occasion that if Wikileaks becomes nonfunctional, then the key to an encrypted "insurance" file will be released [July 29].

For more online activism, see [Jan 18], [April 10], [Nov 5].

Telephony Outage

Oct. 4, 2006

A bug in telecom phone number blacklisting software caused possibly the largest telephony outage in US history. Between 10:06 and 11:30am Eastern Daylight Time around 111 million phone calls were blocked.

The outage began when an employee decided to block a few numbers suspected of malicious activity. He entered each one into the software, but inadvertently left a number field empty. Unfortunately, the software didn't ignore that field, viewing it instead as a "wildcard" denoting "every phone number".

For more network outages, see [Jan 15], [April 13], [April 20], [May 8].

Siri

Oct. 4, 2011

Apple's Siri uses voice queries and a natural language interface to answer questions, make recommendations, and perform actions by sending requests to various Internet services.

Today's press launch was Siri's second introduction. It had first appeared in Feb. 2010 as a standalone iPhone [Jan 9] app created by a 24-person startup called Siri. The company was a spin-off from Stanford's AI Center, and an offshoot of the DARPA-funded [Feb 7] CALO ("Cognitive Assistant that Learns and Organizes") project. Siri (the company) was founded by Dag Kittlaus, Harry Saddler, Adam Cheyer, and Tom Gruber. Just two months after their launch, Apple acquired the firm.

Verizon had signed a deal with the startup in the fall of 2009 to make Siri a default app on all new Android phones. That deal was quickly dissolved after the acquisition, and Siri became exclusive to Apple devices.

Siri may produce surprising answers on occasion. For example, when asked "What is the meaning of life?", it can reply "All evidence to date suggests it's chocolate". Asked "Why am I here?" it may respond, "I don't know. Frankly, I've wondered that myself", A request such as, "Will you marry me?" will illicit "My End User Licensing Agreement does not cover marriage. My apologies".

Siri's main competitors, as of 2020, are Amazon's Alexa ([Nov 6] 2014), Microsoft's Cortana (2014), and Google's Assistant (2016).