August 7th

John Grist Brainerd

Born: Aug. 7 1904;

Philadelphia, Pennsylvania
Died: February 1, 1988

Brainerd was the dean of the Moore School while J. Presper Eckert [April 9] and John Mauchly [Aug 30] were designing and building the ENIAC [Feb 15]. He was responsible for obtaining and managing the project's $400,000 budget, and liaising with the Army. He later said that "considering the magnitude of the result, it was one of the cheapest research and development projects the government ever invested in."

John Grist Brainerd. (c) IEEE Computer Society.

While working his way through college, Brainerd had been a part-time police reporter for *The North American* newspaper in Philadelphia.

Jerry Eugene Pournelle

Born: Aug. 7, 1933;

Shreveport, Louisiana
Died: Sept. 8, 2017

Pournelle was primarily a sci-fi writer, probably best known for collaborating with Larry Niven on *The Mote in God's Eye* (1975). He also wrote the "Chaos Manor" column in BYTE magazine [Sept 3] for many years, offering advice and views from the point of view of an ordinary user rather than as one of the magazine's crack team of hackers.

Pournelle is credited as the first major author to write a published novel entirely on a computer. It was probably a Sol-20 [Sept 4] running the first word processor for a microcomputer, Electric Pencil [Dec 00].

He coined the phrase, "Real Soon Now", to describe the delivery schedule for vaporware [Nov 28].

Thomas M. Cover

Born: Aug. 7, 1938;

San Bernardino, California
Died: March 26, 2012

Cover worked on the relationship between information theory and statistics, and coauthored with Joy A. Thomas, "Elements of Information Theory", the most widely cited book in the field.

His "Nearest-Neighbor Rule" became a cornerstone in the theory of pattern recognition, and his Cover's Theorem is used in machine learning to transform training data to make it easier to cluster.

Cover had a notable love of games and gambling strategies. This expertise led to his part-time role as a statistician for the California State Lottery, from 1986 to 1994. Cover enjoyed devising ways to beat the lottery in order to anticipate other people's fraud.

ASCC Dedicated

Aug. 7, 1944

Prev: [April 17]; Next: [Feb 8]

Thomas J. Watson Sr. [Feb 17], president of IBM [Feb 14], presented the Automatic Sequence Controlled Calculator (ASCC) [April 17] to Harvard University in a formal dedication ceremony, after which the system became the Harvard Mark I.

IBM had spent approximately $200,000 on the project and donated an additional $100,000 to cover the ASCC's operating expenses. On the plus side, IBM had learnt about large calculator development, and subsequently applied these skills to build its own Selective Sequence Controlled Calculator (SSEC) [Jan 27].

Just before the ceremony, Harold Aiken [March 8] published a press release about the Mark I, listing himself as the sole inventor. James W. Bryce [Sept 5] was the only IBM employee mentioned, even though many IBM engineers, including Clair Lake and Frank Hamilton, had helped. Watson was enraged, and only attended the dedication very reluctantly. Harvard president, James Conant, managed to save the day with an impromptu speech praising IBM and its president.

One supposed reason for Aiken's attitude was his displeasure over Watson's insistence that the Mark I's exterior be designed by Norman Bel Geddes, well known for his futuristic designs of the GM pavilion of the 1939 World's Fair.

Thomas Watson, Jr. [Jan 14], recalling the event years later said: "If Aiken and my father had revolvers, they would have both been dead."

Laurence (L) Peter Deutsch

Born: Aug. 7, 1946;

Boston, Massachusetts

Deutsch first came to prominence for his hacking of MIT's TX-0 [Nov 20] when he was just 13 years old. Some historians note that he implemented a version of LISP [April 15] on the PDP-1 [Nov 00] "while still in short pants".

As a sophomore at Berkeley, he was involved with Project GENIE [Nov 30], one of the first

minicomputer-based timesharing systems, writing most of the OS's kernel. Butler Lampson [Dec 23] and Deutsch also developed QED [March 26], GENIE's line-oriented text editor.

At Xerox PARC [July 1], he worked on the Interlisp system, on the Smalltalk [May 17] virtual machine, and helped invent just-in-time compilation. He was the author of the influential "The Eight Fallacies of Distributed Computing," and wrote Ghostscript, a free PostScript and PDF interpreter [Oct 6].

In 2002 he radically changed direction, to study musical composition, and has had several of his works performed at public concerts.

Deutsch changed his first name from "Laurence" to "L" on Sept. 12, 2007.

A quote: "To iterate is human, to recurse divine."

First (or Second) Computer Music

Aug. 7-9, 1951

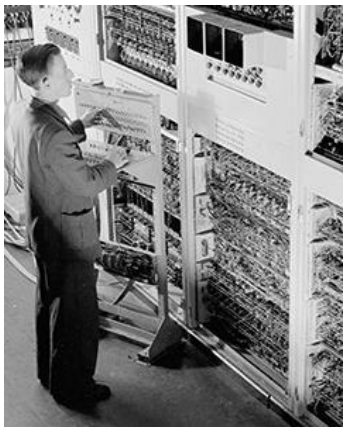
The CSIR Mark1 (later known as the CSIRAC) became operational in 1949 in Sydney, Australia [March 5].

Aside from the usual uses of a computer, Geoff Hill managed to coerce it into playing popular songs, including "Colonel Bogey", "The Bonnie Banks o' Loch Lomond", and "The Girl with the Flaxen Hair".

Musical performances became one of CSIRAC's parlor tricks, most notably at Australia's first computing conference, which started on this day. However, Hill probably finished the music-playing code in 1950.

CSIRAC created sounds by sending electrical pulses along its data bus to a built-in Rola 5C speaker (informally known as "the hooter"). Hill realized that if he could get the pulses to arrive at a regular interval, then they would generate a steady pitch, and so could produce a musical scale. This proved exceedingly difficult to calibrate because each memory access took a different amount of time, and CSIRAC's clock only ran at 1,000 cycles a second.

On at least one occasion Hill telephoned his mother (who was a music teacher) to ask her if some notes were in tune while holding the telephone receiver to the hooter. Her response on the first occasion was to scold Hill for "playing silly buggers with a comb and a piece of paper and annoying her late at night when his dinner was in the oven."



Geoff Hill and the CSIRAC. (c) Museum of Victoria, Australia.

However, research in 2017, revealed that the BINAC [April 4] may have produced music first, when it played "For He's a Jolly Good Fellow" at the party to celebrate its completion in August 1949.

In Autumn 1951, the BBC recorded a Ferranti Mark 1 [Feb 12] playing "Baa Baa Black Sheep", "God Save the King", and part of "In the Mood", which is now the oldest surviving recording of a computer's musical skills. When the music stops mid-way through the last tune, an engineer can be heard remarking, "The machine's obviously not in the mood." The program was written by Christopher Strachey [Nov 16], who also wrote draughts playing software for the Mark 1 which played "God Save the King" when a game finished.

Japan's First Transistor Radio

Aug. 7, 1955

Tokyo Telecommunications Engineering released Japan's first commercially produced transistor radio, the TR-55. It was sold under the company's new name, Sony.

Akio Morita and Masaru Ibuka had been working on the device since 1953. It used five transistors and was powered by four AA batteries.

In March 1957, a slightly more compact version (112 x 71 x 32 mm), the Sony TR-63, became Sony's first product sold in the US, and the world's smallest radio. Even so, the TR-63 wouldn't quite fit into a normally sized shirt front pocket, so the company issued shirts to its salesmen with larger pockets . They could now demonstrate that the product was "the world's first pocket-sized transistor radio".

Although the TR-55 wasn't the world's first transistor radio (see [Oct 18]), Sony was subsequently the first company to release a fully transistorized TV [Dec 25].

Jimmy Donal (Jimbo) Wales

Born: Aug. 7, 1966;

Huntsville, Alabama

Wales was the co-founder with and Larry Sanger of Wikipedia [Jan 15] and the Wikia company in 2001.

Back in 1996, he and two partners founded Bomis, an adult content web portal, best remembered for its "Bomis Babes". This venture provided the initial funding for the peer-reviewed free encyclopedia, Nupedia [March 9] (2000–03).

The intent behind Nupedia was to host expert-written entries on a variety of topics, with advertising sold alongside the entries for profit.

Wales later said he realized the Nupedia model wasn't going to work when he tried to write an article on Nobel Prize-winning economist Robert C. Merton, but was too intimidated to submit his first draft.

Jimmy Wales (2006). Photo by Lestat (Jan Mehlich). CC BY-SA 2.5.

Wales has called himself an Objectivist, referring to the philosophy of Ayn Rand. It argues that selfishness is a virtue, altruism a vice, and capitalism the only sane economic system. One former associate called Rand "the Evel Knievel of leaping to conclusions."

Wales has nevertheless rejected the title "benevolent dictator of Wikipedia" [April 18], preferring "constitutional monarch" because he does a lot of waving.

DeviantArt Opens
Aug. 7, 2000

DeviantArt is an online artwork, videography and photography community, launched by Angelo Sotira, Scott Jarkoff, Matthew Stephens, and others. It was originally intended only to host Winamp [April 21] skins, but soon expanded its art bailiwick.

The site's name comes from the idea that people would submit software skins that "deviated" from an application's original design. As the site grew, its members became known as "deviants" and submissions as "deviations".

Fella, a small, devil-like robotic character, was the official mascot until 2014.

As of 2017, the site had over 26 million members and 251 million submissions.

Russo-Georgian (Cyber) War
Aug. 7-12, 2008

The Russo-Georgian War pitted the Republic of Georgia against the Russian-backed self-proclaimed republics of South Ossetia and Abkhazia, which wished to leave Georgia.

It was the first known example of cyber-warfare being coordinated with on-the-ground combat. Starting on July 20, 2008, media, communications, and transportation companies in Georgia were electronically attacked. These assaults spread to computers used throughout the government after Russian troops physically entered South Ossetia. For example, the website of the Georgian president Mikheil Saakashvili was targeted and overloaded. The traffic directed at the site included the phrase "win+love+in+Rusia".

For earlier attacks, see [March 4] and [April 27].

The SyNAPSE Chip
Aug. 7, 2014

SyNAPSE (Systems of Neuromorphic Adaptive Plastic Scalable Electronics) is a DARPA [Feb 7] programme that aims to build a computer with a similar form and function to the mammalian brain. The project was undertaken by HRL Labs, Hewlett-Packard, and IBM Research, with Dharmendra S. Modha as team leader.

The SyNAPSE chip introduced on this day, employed 5.4 billion transistors in an on-chip network of 4,096 cores, that was capable of 46 billion synaptic operations per second, while only consuming 70mW.

This is equivalent to around 1 million neurons and 256 million synapses, which is still some way short of the human brain, which has 10 billion neurons and 100 trillion synapses. However, the chips can be linked together.