Dec. 1st

Gerald (Jerry) Anderson Lawson

Born: Dec. 1, 1940;

Brooklyn, New York
Died: April 9, 2011

In the mid-1970's Lawson led the development of the Fairchild [Oct 1] Channel F console, the first gaming device to support swappable cartridges. He designed the console's electronics while Wallace Kirschner and Lawrence Haskel created the cartridge interface.

Gaming systems had previously stored their software on a ROM chip soldered onto the circuit board. Removable cartridges made it possible for a user to spend additional cash to amass a library of games, a pleasing choice for the game makers. Other console manufacturers quickly adopted the idea, most notably resulting in the Atari 2600 [Oct 14].

Lawson was also responsible for one of the earliest arcade games, "Demolition Derby", which debuted in a California pizzeria in 1972 shortly after Pong [Nov 29] was released. It could accommodate one or two players, and featured a steering wheel, gas pedal and stick shift for each person.

Lawson and Ronald L. Jones were the only African Americans members of the Homebrew Computer Club [March 5]. (Jones was the founder of Hurricane Labs, and designer of the TRS-80 Compactor which let that machine [Aug 3] run CP/M [June22].) Lawson noted that the Fairchild management thought he was from India for the five years he worked there.

Lawson interviewed Steve Wozniak [Aug 11] for a job at Fairchild, but didn't hire him

Federico Faggin

Born: Dec. 1, 1941;

Vicenza, Italy

Faggin was one of the co-inventors of the Intel 4004 [Nov 15], together with Ted Hoff [Oct 28], Masatoshi Shima [Aug 22], and Stanley Mazor [Oct 22]. He also designed, or co-designed many other early microprocessors, including the Intel 8008 [April 00] and 8080 [April 18], and the Z80 [March 9] for Zilog, a company that he co-founded with Ralph Ungermann.

Federico Faggin (2011). Photo by the Intel Free Press. CC BY-SA 2.0.

At Fairchild Semiconductors [Oct 1], Faggin invented a new form of chip design based on silicon gate technology which made it possible to reduce a microprocessor's size drastically, and employed it on the 4004's design.

He also 'signed' the chip, by including his initials "F.F." in one corner of the die. He was also responsible for the chip's new numbering scheme. The 4004 should have been designated the 1202, and the 8008 would have been the 1201, reflecting the fact that its design began before the 4004, but had been put on hold.

His Federico and Elvia Faggin Foundation supports the scientific study of consciousness, including the possibility of building a conscious computer. Faggin's interest in these questions started when Synaptics, a company he founded in 1986, began developing neural networks.

Nicholas Negroponte

Born: Dec. 1, 1943;

New York City

In 1967, Negroponte founded MIT's Architecture Machine Group (aka Arch Mac) to study human-computer interaction. The group's name reflects how he had begun his academic life studying architecture, and later became interested in using computers for architectural design.

In 1985, he and Jerome B. Wiesner set up the MIT Media Lab, which he led as its director for nearly 20 years. The lab grew out of MIT's School of Architecture rather than the School of Electrical Engineering, with a remit to study human-computer interfaces, including speech, electronic music, holography, and computer games; more briefly, it's been called a "high-tech playground".

In 1977, after the National Science Foundation (NSF) rejected Negroponte application for a grant, he announced that his research groups would focus on finding support in the military, corporate, and private sectors. This led the Media Lab to being primarily reliant on sponsorships by corporations and rich donors. Some of those donors have been less than savory.

Negroponte was involved in the creation of *Wired* magazine [Jan 2] as both the first investor ($75,000) and as a regular columnist. Over the years, he's become an active "angel investor", supporting tech companies such as Skype [Aug 29].

In 2005, he founded the "One Laptop per Child" (OLPC) project [Jan 31].

A quote: "Computing is not about computers any more. It is about living."

This echoes a more famous quote: "Computer Science is no more about computers than astronomy is about telescopes," variously ascribed to Edsger Dijkstra [May 11] or Alan Perlis [April 1]. However, its earliest appearance is in the book "Machinery of the Mind"(1986) by George Johnson, but unattributed.

Computer Methuselah

Dec. 1, 1957

The longest serving computer was probably an IBM 704 [May 7], which was installed at Bell Aerosystems on this day, rented for $33,250 a month.

In 1964 it was sold to "Pan American Petroleum", and in Sept. 1967 to "Southwestern Computing Services" for the knock-down price of $1. A bargain, since it was only retired in April 1975, not because of a malfunction, but because of overheads – it was incurring $800/month in power and cooling costs. It had been in service for some 18 years.

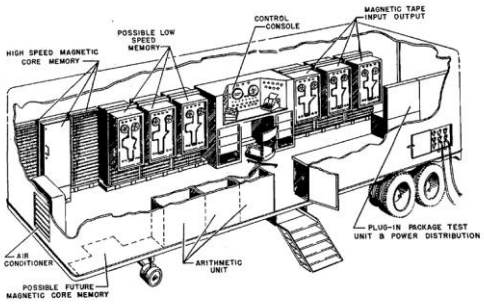
MOBIDIC

Dec. 1, 1959

MOBIDIC ("MOBIle DIgital Computer") was part of the US Army's FIELDATA project, which aimed to automate the distribution of battlefield data. It was built according to Army specifications by Sylvania Electric Products.

MOBIDIC was mobile in the sense of being carried around in a 30-foot truck, due to weighing close to 6 tons, with an attached trailer to hold its power supply. Two other vans carried auxiliary equipment and a repair shop.

The first machine, MOBIDIC A, was delivered to Fort Monmouth on this day, and the Army was happy enough with the system to order four more.



MOBDIC cutaway view. US Army.

After the end of the FIELDATA project, the basic layout of the MOBIDIC system lived on in several other projects, and Sylvania also sold a commercial version, known as the 9400. However, MOBIDIC wasn't the first mobile computer; it actually replaced the DYSEAC [April 00] from 1954.

A more modern definition of "mobile" was offered by the RECOMP II [Jan 00] released in 1958.

Project Gutenberg

Dec. 1, 1971

Project Gutenberg is a distinguished volunteer effort that aims to digitize and archive culturally-significant texts that have passed into the public domain. It currently offers over 57,000 free eBooks online, hosted by the University of North Carolina at Chapel Hill.

The project was begun on this day by Michael S. Hart, a student at the University of Illinois, when he uploaded a copy of the Declaration of Independence onto the Xerox Sigma V mainframe [July 21] in the university's Materials Research lab.

The Sigma was one of the 15 nodes of the burgeoning ARPANET [Oct 29], but sending the 5 KB file to all of its hundreds of users would have crashed the network. Instead Hart distributed the text's location.

All Project Gutenberg texts were typed in by hand until 1989 when image scanners and optical character recognition became more widely available. In 1994, Pietro Di Miceli began developing its website and online catalog.

Other digital libraries of note include the Library of Congress's American Memory [Oct 13], the Internet Archive [May 12], Google Books [Oct 6], the World Digital Library [April 21], and WikiSource [June 20].

LINPACK Released

Dec. 1, 1979

LINPACK is a library for performing numerical linear algebra. It was originally written in FORTRAN [Dec 00] by Jack Dongarra, Jim Bunch, Cleve Moler [Aug 17], and Gilbert Stewart, for use on the supercomputers of the time.

The library includes a set of benchmarks for measuring how fast a computer can solve a dense n-by-n system of linear equations, a very common task in engineering, which soon became a standard way to judge the relative speeds of machines.

In recent years, LINPACK has been largely superseded by LAPACK, which runs more efficiently on modern shared-memory, vector supercomputers. However, a version of LINPACK is still used to rank supercomputers in the TOP500 list [May 00].

BBC Micro

Dec. 1, 1981

Acorn Computers [Dec 5] released the BBC Micro to accompany the 1982 BBC TV series "The Computer Programme" [Jan 11].

Earlier that year, the BBC's Computer Literacy Project had discussed the idea of producing a home computer linked to the show with several companies, including Acorn, Sinclair Research [July 30], and Dragon Data.

Acorn had been working on a successor to their Atom microcomputer called the Proton, but it was only at an early design stage when the BBC came calling. Steve Furber [March 21] and Sophie Wilson [?? 1957], had just one week to build a prototype that matched the BBC's requirements.

At one point, it was discovered that the machine only worked when a finger was placed at one spot on the motherboard. Nobody could understand why, but the behavior could be reliably replicated by including a resistor pack at that location, and so became part of the design.

A BBC Micro. Photo by Stuart Brady.

The BBC Micro (later nicknamed the Beeb) featured a 6502 [Sept 16] processor, a sturdy keyboard, 16-bit color graphics, and BBC BASIC burnt into a 32 KB ROM. The machine was expandable, with ports for a cassette player, a floppy disk unit, a joystick, and a serial interface. In fact, there were so many ports that the back of the machine ran out of space and Acorn had to add a bay underneath the device to accommodate the others.

More than 1.5 million Beebs were eventually sold, and it was an especial hit in British schools (around 80% used them at one time). The huge user base meant that a large amount of software was created for the machine, much of it educational in nature.

Acorn's profits were used to fund the development of their ARM architecture [April 26].

FidoNet Created

Dec. 1, 1983

FidoNet is both a networking protocol and software to support communication between BBSes [Jan 16], aimed specifically at e-mail, forum posts, and file transfer. It was created by Tom Jennings, with the name inherited from his Fido BBS.

Other BBS software soon adapted the protocol, and by Jan. 1985 there were almost 160 systems in the FidoNet list. By the 1990's FidoNet contained approximately 39,000 members.

FidoNet usually automatically moved mail between BBSes at 4am, the so-called "Zone Mail Hour", to reduce long distance phone charges. Nevertheless, the delivery of increasingly large amounts of data was expensive, which led to management problems. The infighting became so bad that Jennings started referring to the system as the "fight-o-net".

In the mid 1990's, users started to abandon BBSes in favor of the Web, but FidoNet is still around, consisting of around 200 nodes.

Konami Code

Dec. 1 1986

The Konami Code was a special combination of game controller button presses (UP, UP, DOWN, DOWN, LEFT, RIGHT, LEFT, RIGHT, B, A, START) that popped up in several Konami games as a cheat code to give the player extra lives or additional power. It was a popular feature, and soon spread to non-Konami games.

It was devised by Kazuhisa Hashimoto while he was developing the NES [Oct 18] port of the arcade game Gradius, an horizontal scrolling shooter. It wasn't meant to be a cheat code but rather a diagnostic aid because the game was too difficult to play during testing. Inadvertently, the code was left in the released version after Hashimoto forgot to remove it.

North American players of the NES version of Contra, often called it the "Contra Code" or "30 Lives Code" since it gave a player 30 lives instead of the standard 3.

Apache HTTP Server

Dec. 1, 1995

Brian Behlendorf [March 30] started developing the Apache HTTP server while he was working on the HotWired [Oct 27] website for *Wired* [Jan 2] magazine in 1994.

Initially he modified the NCSA [Jan 15] HTTPd web server written by Rob McCool to add name and password functions, and wider interest in his code led him and Cliff Skolnick to put together a mailing list. The "Apache Group" became the standard place to discuss extensions and bug fixes.

The rise of the Apache server also coincided with the slowing of the development of HTTPd after McCool left NCSA in mid-1994.

The first official public release (0.6.2) occurred in April 1995, and Apache 1.0 debutted on this day. Within a year it was the most popular Web server software.

The name was widely believed to be a pun on 'A Patchy Server' (since it began as a series of software patches), but Behlendorf has said that the name was chosen at random.

Business.com

Dec. 1, 1999

The Internet domain name [Jan 1], business.com, was sold to eCompanies Inc. by "domain name investor" Marc Ostrofsky for a record $7.5 million. However, by today's standards (2020), that doesn't even put it

in the top-ten most expensive names. The top five are:

- CarInsurance.com; $49.7 million (2010);
- Insurance.com; $35.6 million (2010);
- VacationRentals.com; $35 million (2007);
- PrivateJet.com; $30.18 million (2012)
- Voice.com; $30 million (2019).

However, Carinsurance.com may have been beaten by LasVegas.com. In 2005, Vegas.com paid a mere $12 million in cash to acquire the name (for the "Las"), but financial statements later revealed that it actually cost an astounding $90 million. The payment plan, scheduled over 35 years, spans 2005 to June 30, 2040.

Even domain names with typos fetch a good price. For example, cheptickets.com (a misspelling of 'cheap tickets') went for $200,000 in 2009.

Condor Cluster

Dec. 1, 2010

The Air Force Research Lab in New York introduced its Condor Cluster supercomputer, capable of 500 trillion floating point operations per second. It became the 35th fastest machine in the world.

The most amazing thing about it was the price – just $2 million to build, 5-10% the cost of equivalently powerful machines. This was due to the cluster being built from 1,760 PlayStation 3's [Nov 11].

It actually utilized the older PS3 model because the new one (the PS3 Slim) didn't allow the installation of Linux. Sony had also issued a firmware update that stopped Linux from being installed on the older PS (due to hacker attacks), so the Air Force had to convince Sony to sell it un-updated PS3s. "It wasn't something as simple as going to Best Buy or Wal-Mart," said Mark Barnell, the director at the lab.