April 16th

Moxon's Master

April 16, 1899

The short story, "Moxon's Master," by Ambrose Bierce features a chess-playing automaton that murders its creator after losing a game. It was first published in "The San Francisco Examiner" on this day.

The machine is clearly inspired by Von Kempelen's Turk [April 00]: "He was apparently not more than five feet in height, with proportions suggesting those of a gorilla -- tremendous breadth of shoulders, thick, short neck and broad, squat head, which had a tangled growth of black hair and was topped by a crimson fez. A tunic of the same color, belted tightly to the waist, reached the seat-apparently a box-upon which he sat; his legs and feet were not seen. His left forearm appeared to rest in his lap; he moved his pieces with his right hand, which seemed disproportionately long."

One word missing from the story is "robot", which didn't start appearing in English until the mid 1920s [Jan 25]. It's also far from being the first story about machine-men which was probably in "The Steam Man of the Prairies" by Edward S. Ellis [March 24], from 1868.

For more robot men, see [Feb 00], [Feb 24], [March 23], [April 30], [July 17], [July 30], [Sept 15], [Nov 11], [Nov 30], [Dec 22].

CSC Founded

April 16, 1959

"Computer Sciences Corporation" (CSC) was founded by Roy Nutt (1930 - 1990) and Fletcher Jones (1931 - 1972) to sell custom-developed programming tools, such as compilers, linkers, and loaders. Nutt's interest in such tools stemmed from his work on FORTRAN [Dec 00], specifically the development of its input-output subsystem.

By 1963, CSC had become the largest software company in the US and was the first independent IT firm to be listed on the New York Stock Exchange (NYSE) at the end of 1968. This was long before the better-known Cullinane Corporation, a database company, which is sometimes labeled as first, but only joined the exchange in 1982.

CSC 's major software hit was Computax, released in 1964, for preparing tax returns. It became very popular amongst accountants preparing corporate taxes.

CSC wasn't quite the first software company; that was "Computer Usage Company: (CUC [March 28] 1955). Another major software company of the 1950s was SDC [Oct 00], an off-shoot of RAND [Oct 1].

Echo IV Operational

April 16, 1966

James F. Sutherland's ECHO IV (Electronic Computing Home Operator) was hand-built by Sutherland from surplus parts taken from a decommissioned PRODAC IV at Westinghouse (where he worked). It was enclosed in oiled-walnut cabinets and occupied most of the basement of his house, making it the first "home computer".

According to the April 1968 issue of "Popular Mechanics" magazine, ECHO IV managed the family's finances, stored recipes, maintained shopping lists, tracked inventory, controlled the house's temperature, turned appliances on and off, and predicted the weather. However, Sutherland was most excited about ECHO IV's ability to act as a message center, where the family could leave notes for each other.

Jim Sutherland and family in front of the ECHO IV, with Jim at the keypad. (c) Pittsburgh Post-Gazette, 1966.

The magazine article noted that, Mrs. Sutherland had asked: "Will it replace me?"

Programming and interacting with ECHO IV was accomplished in several ways: via front-panel switches on the main cabinet in the basement, using a programmer's keypad (for entering octal), or from a IBM 735 Selectric typewriter conveniently located in the kitchen.

The typewriter was primarily used for word processing and, in 1975, Sutherland used it to format a 516-page book on post-Revolutionary War land grant surveys.

For more home automation, see [Dec 00].

FTP

April 16, 1971

The File Transfer Protocol (FTP), for transfering files between a client and server on a network, was described in RFC 114 [April 7] written by Abhay Bhushan [Nov 23].

Until 1980, FTP ran on top of the Network Control Protocol (NCP), but was later replaced by a TCP/IP version [Sept 9], necessitating new RFCs (namely

765 and 959), and many other RFCs as FTP was amended and/or extended (a total of 16 at the last count). For example, the need for better security encouraged the development of protocols such as FTPS and SFTP.

FTP is still going strong with millions of servers still on the Internet ,which is fairly amazing considering the bad press it gets. However, its days may be numbered after the protocol was disabled in Google Chrome [Sept 2] in Jan. 2021, and other major browsers, such as Firefox [Nov 9], followed suit.

This day also marked the release of the song "Browwn Sugar" by The Rolling Stones [June 24; Aug 24; Dec 7]. However, the protest song, FTP, by the hip hop group N.W.A, debuted on Aug. 9, 1988.

Homebrew Fool on the Hill

April 16, 1975

At the third meeting of the Homebrew Computer Club [March 5] held on this day, Steve Dompier keyed a small program into an Altair 8800 [Dec 19] which played the song "Fool on the Hill" on a AM transistor radio placed next to the Altair but was otherwise unattached to it. He concluded the demo with "Daisy Bell" [Jan 12].

In next issue of "Computer Notes" [April 7], Bill Gates [Oct 28] described this as "the best demo program I've seen for the Altair", but couldn't figure out how the computer could broadcast to the radio. It was actually achieved through frequency interference controlled by timing loops in the code, which were picked up as tone pulses by the radio.

Dompier revealed the secrets of his program in Vol. 3, No. 5 of the "People's Computer Company" (PCC [Oct 00]) newsletter, and it was later reprinted in "Dr. Dobb's Journal" [Jan 00], but without his illustrations. Dompier's article included a table translating between octal values and a twelve-tone scale that the radio could reproduce, and suggested ways to alter the tempo of a song.

At the 30th reunion of the Homebrew Computer Club in 2005, Dompier remembered: "After the article was published, I received many phone calls (as far away as India) from people that wanted to play me the songs that they had entered into the Altair."

For more computer music, see [Aug 7] and [Nov 13].

Dilbert Launched

April 16, 1989

The Dilbert comic strip by Scott Adams (1957 -) is known for its satirical white-collar humor featuring computer engineer, Dilbert. In early strips, most of the jokes revolved around Dilbert's engineering background, his bizarre inventions, and his dog Dogbert. But things livened up considerably when the action moved to Dilbert's workplace in Silicon Valley.

Adams had once worked as a programmer at Crocker National Bank in San Francisco, and also at Pacific Bell between 1986 and 1995.

For more computing cartoons, see [March 12], [July 5], [Aug 23], [Sept 9], [Sept 24], [Oct 17].

Clipper Chip Announced

April 16, 1993

The White House announced the Clipper chip, a cryptographic chipset using "Key Escrow". The Electronic Frontier Foundation (EFF [July 6]) preferred the term "Key Surrender".

Any device using a Clipper chip would be assigned a fancy cryptographic key, which would also be copied to a secure location maintained by the government. This security would of course not extend to preventing law enforcement agencies from decrypting any traffic on that device for surveillance and intelligence purposes. But, hey, what have you got to hide?

In 1993, AT&T Bell produced the first and only telephone encryptor based on the Clipper chip: the TSD-3600. A year later, Matt Blaze, a researcher at AT&T, found a major design flaw in the system.

The best that can be said for the idea was that its obvious dangers encouraged the development of several software packages, such as PGP [June 5], which could be used to encrypt data independently of the device's hardware.

Imprisoned by a Cyberloo

April 16, 2001

A 51-year-old woman was subjected to a harrowing two-hour ordeal when she was imprisoned in a hi-tech public toilet during a shopping trip to Newcastle-upon-Tyne in England.

The toilet, which boasted state-of-the-art electronic auto-flush and door sensors, refused to release her, and resisted all attempts by good Samaritans to prise the door open. She was finally freed when firefighters ripped the roof off the toilet booth.

In a separate series of frightening incidents in 2007, Toto, Japan's leading toilet manufacturer, was forced to recall 180,000 of its Z-series toilets after some of them spontaneously combusted due to a faulty "electric bidet accessory". The Z-series also featured pulsating massage spray, a power dryer, "tornado wash" flush, and an automatic toilet lid. A Toto spokesman confirmed: "Fortunately, nobody was using the toilets when the

fire broke out and there were no injuries."

For more toilet action, see [April 30].

Sci-Hub Created

April 16, 2011

The Sci-Hub website (https://sci-hub.tw/) provides free access to millions of paywalled (and open-access) research papers and books.

It was founded by Alexandra Elbakyan (1988 -) in 2011 in Kazakhstan, in response to the high cost of accessing research papers locked behind paywalls, papers which in the vast majority of cases are based on research funded by public money. The site is widely used in both developed and developing countries.

Alexandra Elbakyan (2010). Photo by Apneet Jolly. CC BY 2.0.

Elbakyan has been described as the Internet's "Science's Pirate Queen". She is also a fugitive following a lawsuit brought in the US by the publisher Elsevier. In 2015, the academic publishing market that Elsevier leads had an annual revenue of $25.2 billion.

Sci-Hub has been characterized by "Science" correspondent John Bohannon as "an awe-inspiring act of altruism or a massive criminal enterprise, depending on whom you ask".

Oracle vs. Google

April 16, 2012

Oracle vs. Google was a dispute related to Oracle's copyright and patent claims on Google's Android OS [Nov 5]. Oracle alleged infringement of 37 Java APIs by Google who implemented the APIs in Android for itself, but retained their external functionality, organization, and naming.

The trial began on this day, and (naturally) rolled on for years. Indeed, the lawsuit had first been filed nearly two years before today, just a few months after Oracle had acquired Java from Sun Microsystems [Feb 14] for $7.4 billion.

Through a series of rulings, appeals, and counter-rulings, the final result was decided in the US Supreme Court on April 5, 2021: it sided 6-2 with Google. In the written decision, the court noted that even if lines of code can be copyrighted, Google's copying was nonetheless fair use.

This case was enormously significant in terms of precedents about what copyright covers. Also, if Google had lost it would have meant a fine in the billions, depending on whether Oracle demanded royalties for every Android device ever made.

Way, way back in 2006, Google rejected Sun's offer of a three-year Java license for $20 million plus 10% of Google's Android-related revenue, capped off at a maximum of $25 million. Instead Google went ahead and used the APIs without a license.