Sept. 11th

Jean-Maurice-Émile Baudot

Born: Sept. 11, 1845;

Magneux, France
Died: 28 March 1903

Baudot was unhappy that the slow speed of the telegraph, with transmission rates of only a dozen words per minute, was made even worse by the predominate use of Morse code [Oct 19]. His answer was the Baudot code in 1870 which represented each character by five bits, with equal on and off intervals (unlike in Morse). It later evolved into the International Telegraph Alphabet No. 2 (ITA2), the basis for five-bit teletype writer codes until the debut of seven-bit ASCII on [June 17] 1963.

Jean-Maurice-Émile Baudot. Engraving by A. Delzers. Published by the ITU.

Baudot also invented a telegraph apparatus for his code that employed a piano-like keyboard - with only five keys of course. It could easily reach transmission speeds of 30 words per minute.

The "baud" bits/second rate measurement was named after him.

Charles M. Geschke

Born: Sept. 11, 1939;

Cleveland, Ohio
Died: April 16, 2021

Geschke founded Xerox PARC's [July 1] Imaging Sciences lab in 1978, where he directed research on graphics, image processing, and optics.

In the early 1980's Geschke and John Warnock [Oct 6] developed the Interpress page description language to describe complex forms like typefaces. They were inspired by Bob Sproull and William Newman's earlier work, also at PARC, on a page image description scheme called "Press format" for raster printers. Butler Lampson [Dec 23] also contributed to Interpress' execution model.

Following a familiar Xerox storyline, Geschke and Warnock were unable to convince management of the commercial value of Interpress, so the pair left Xerox in Dec. 1982, to found Adobe Systems.

Interpress evolved into Adobe's Postscript language, which triggered the rise of desktop publishing when combined with Apple's LaserWriter [March 1]. Postscript was also influenced by Warnock's research with Martin Newell on an interpreted graphics system called JAM (short for "John And Martin").

Geschke's grandfather and father had both worked as letterpress photo engravers, and his father helped out during the early days of Adobe, checking color separations. Geschke said his father's acknowledgement of the high quality of the generated halftone patterns was "a wonderful moment."

On May 26, 1992, Geschke was kidnapped by two men as he arrived for work. Four days later he was freed when the FBI caught one of the men with the $650,000 ransom.

Handyman Demoed

Sept. 11, 1958

Ralph Mosher of General Electric demoed Handyman, a pair of nine-foot mechanical arms mounted on a crane, that were operated by the user's own arm movements via remote control.

Each of the mechanical arms had ten degrees-of-freedom, and four fingers with tactile sensors which enabled the Handyman to be gentle enough to stack eggs. However, the device was actually intended to handle nuclear materials for the Air Force, which meant that there was always a thick concrete wall separating the operator from the arms, and hence the need for the remote control element.

Handyman was one part of Mosher's Cybernetic Anthropomorphic Machine Systems (CAMS) project., which would later produce the "Walking Truck" and the "Hardiman" mechanical arms that were 'worn' by a user.

Poetry Analysis

Sept. 11, 1964

The New York Times ran an article on Joseph Raben's work to compare John Milton's "Paradise Lost" (written during the 17th century) and Percy Bysshe Shelley's "Prometheus Unbound" (from the 19th century) by using a computer to produce a concordance of both works. The aim was to find evidence for Raben's belief that Shelley borrowed imagery from Milton.

Raben, a professor of English at Queens College in NYC, was assisted in his analysis by Seymour Goodman of the Queens' Department of chemistry and Raymond D. Villani of IBM.

Verbal correspondences between the two poems were only sought "within the confines of single sentences". Even with

such limitations, the program produced tens of thousands of correspondences, admittedly most of them consisting of just two words, but two long sentences contained 17 co-occurrences. The analysis suggested, for example, that a sentence in "Prometheus Unbound" which refers to earthquakes and thunder, is linked to a passage in "Paradise Lost" where Eve, having eaten the forbidden fruit, lures Adam into joining her in sin.

Rabin asserted, "The diction of 'Paradise Lost' was organically used in 'Prometheus Unbound' and its presence can be detected only by techniques beyond unaided human capacities."

This was not the first use of a computer-generated concordance, which may have been John Ellison's work on The Bible [Feb 1] in 1951.

For more literary shenanigans with computers, see [Aug 1; Aug 22; Sept 9; Oct 26; Dec 25].

MiniScribe Bricks
Sept. 11, 1989

MiniScribe Corp. was a manufacturer of disk storage devices. In March 1989, under pressure from investor lawsuits, MiniScribe initiated an in-house investigation of certain financial irregularities. On this day, a 1,500-page report was released, accusing former senior managers of running "a massive fraud'' over the previous three years.

Fabricated commercial data included the shipping of bricks and scrap parts disguised as disk drives. The perpetrators had rented a warehouse in Colorado where they packed 26,000 bricks into hard drive boxes and shipped them to Singapore in order to improve the company's inventory count.

The company declared bankruptcy on Jan. 1, 1990, and Maxtor acquiring its assets (exempting the bricks).

CueCat Released
Sept. 11 ??, 2000

The company "Digital Convergence" mailed hundreds of thousands of cat-shaped barcode scanners (known as CueCats) to the subscribers of various US magazines and newspapers.

The CueCat let its user access a website by scanning a barcode — called a "cue" — that was printed in an article or ad. This seemed like a good idea since scanning was less work than typing a URL, and another "benefit" was that the device could also gather personal information about its users. Some people posted instructions on how to stop this, and, in an ill-conceived move, Digital Convergence threatened to sue them.

The company went out of business in 2001, and in Dec. 2009, Gizmodo voted the CueCat the #1 worst invention of the 2000s.

The 9/11 Attacks
Sept. 11, 2001

Over 3,000 people died after four plane hijackings ended in the collapse of both towers of the World Trade Center in NYC, the destruction of part of the Pentagon, and a plane crash in Pennsylvania.

In the hours following, CNN's website traffic spiked at 680%, while CBS News traffic increased by 819%. The sites quickly became unresponsive.

An estimated one-third of all US Internet users visited online forums to discuss the attacks in the following days. Some commentators later credited this surge of activity as a catalyst for the subsequent popularity of blogs [Jan 23].

9/11 also had negative consequences for the Internet, most notably the Patriot Act [Oct 26] and the next entry.

Tourist Guy
Sept. 11, 2001

The "tourist guy" hoax was a digitally altered photograph of a tourist standing on the observation deck of the World Trade Center supposedly on this day [previous entry], as indicated by a plane about to hit the tower in the background. But the image contained many inconsistencies, including:

- The individual was standing on the south tower's observation deck; yet the north tower was the first to be hit. It seemed extremely unlikely that someone would still be posing for a snap after that.
- The plane crashed into the tower from the south, but the aircraft in the photograph is approaching from the north.
- Both planes were Boeing 767s, whereas a Boeing 757 is shown in the photo. In addition, the aircraft that hit the south tower was owned by United Airlines, but the one in the image had American Airlines livery.

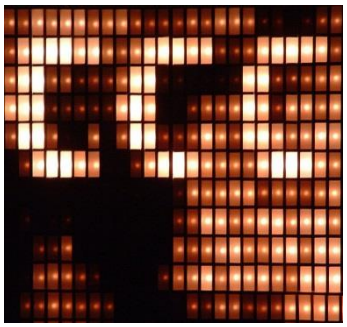
As the picture's 'fame' spread, the same tourist started appearing in other images, including on board the Titanic, and at the assassination of John F. Kennedy.

Project Blinkenlights
Sept. 11, 2001

Project Blinkenlights was a lights installation in the Haus des Lehrers building in Berlin's Alexanderplatz – the windows at the front of the building were transformed into a rather large, yet low-resolution, monochrome computer display.

The event was organized by the German Chaos Computer Club (CCC [Sept 12]), Europe's largest association of hackers, and went online on this day to celebrate the club's 20th birthday. The 'display' was used to play Pong

[Nov 29], and present several animations.



Blinkenlights at the 22nd CCC in Berlin. Photo by Max Braun. CC BY-SA 2.0.

Similar installations were later created by the CCC for the Bibliothèque Nationale de France in Paris, and on the two towers of Toronto's City Hall; both featured higher resolution 'screens' that offered eight shades of grey.

IEEE 802.11n

Sept. 11, 2009

802.11 is a set of IEEE standards [Jan 1] that govern wireless networking transmission methods.

After six years and almost a dozen drafts, the IEEE Standards Board approved the 802.11n wireless networking standard on this day. It offered a significant increase in throughput over its predecessors, 802.11a and 802.11g, boosting the data rate from 54 Mbit/s to a theoretical 600 Mbit/s. In 2014 802.11ac (aka WiFi [July 31]) tripled this speed, approaching the performance of a typical wired network. Currently in development, 802.11ax will hopefully provide four-times the throughput of 802.11ac.

In 2018, the Wi-Fi Alliance began using a consumer-friendly numbering scheme for the protocols. The names Wi-Fi 1–7 refer to the 802.11b, 802.11a, 802.11g, 802.11n, 802.11ac, 802.11ax, and 802.11be protocols, in that order.
