July 31st

Crippen Caught

July 31, 1910

Dr. Hawley Harvey Crippen was arrested when the transatlantic ocean liner, the SS Montrose, he and his mistress were on, arrived in Quebec. He was the first person to be caught as a result of a wireless telegraph.

The captain, Henry George Kendall, recognized the fugitives and sent a wireless telegram to the British authorities on July 22 just before steaming beyond the range of his ship's transmitter.

John ("Rusty") Makepeace Bennett

Born: July 31, 1921;

Warwick, Queensland, Australia
Died: December 9, 2010

Bennett was Australia's first professor of computer science and the founding president of the Australian Computer Society.

John Makepeace Bennett (1957). (c) University of Sydney.

In 1947 he became Maurice Wilkes' [June 26] first research assistant and part of the team building the EDSAC [May 6]. He later used the machine to solve the first ever structural engineering calculations on a computer. He also pioneered the use of computers for X-ray crystallography in collaboration with John Kendrew (a Nobel Prize winner).

He designed the instruction set for the Ferranti Mark 1*, the successor to the Ferranti Mark 1 [Feb 12], and when Ferranti's promise to provide a computer for the 1951 Festival of Britain couldn't be fulfilled, Bennett suggested building a machine that could play Nim, which became the Nimrod [May 5].

In 1956, Bennett returned to Australia to head software development for the SILLIAC [July 4].

John Rogers Searle

Born: July 31, 1932;

Denver, Colorado

Searle is noted for his contributions to the philosophy of language, philosophy of mind, and social philosophy. Within computing, he's perhaps best known for his *Chinese room* argument against AI, which he first outlined in 1980.

Suppose you're in a closed room which has two serving slots open to the outside. Through slot 1 somebody gives you a piece of paper containing Chinese characters which you don't recognize as words. However, you do possess a huge rulebook that allows you to select and combine Chinese characters. Eventually you push a piece of paper holding these new characters out of slot 2.

To people in the outside world, it appears that the room "speaks Chinese", since they submit Chinese statements through slot 1, and obtain valid responses through slot 2.

The question is: does the room understand Chinese? Or is it merely simulating the ability? Searle calls the first position "strong AI" and the latter "weak AI".

It's worth noting that the dominant Al paradigm at the time focused on logic and symbolic manipulation. Its decline since the 1980's perhaps suggests that early Al was indeed missing something.

For another famous critic of AI, see [Oct 15].

Victor Hayes

Born: July 31, 1941;

Surabaya, Dutch East Indies, but in 1950, his family returned to the Netherlands.

Hayes is often called the father of WiFi since he helped establish and chaired the IEEE standards workgroup that defined the IEEE 802.11 set of wireless networking standards between 1990 and 2000. The 802.11 family now includes 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac, and many more.

He also mobilized the computer industry through his Wi-Fi Alliance. One major outcome was that the 2003 World Radio Conference allocated an additional 455 MHz of radio spectrum in the 5 GHz area especially for wireless devices.

CDS on the Ball

July 31, 1947

The Comprehensive Display System (CDS) was a command, control, and coordination system developed by the British Royal Navy. Fourteen progress reports were issued between this date and October 16, 1951

One of its contribution was the trackball, invented by Ralph Benjamin in 1946. The "roller ball" (as it was then called) was patented in 1947, but kept a military secret. Only a single prototype was ever built, utilizing a metal ball rolling on two rubber-coated wheels, since production versions of the CDS used joystick controls instead.

The CDS design went on to influence the development of the Royal Canadian Navy's DATAR [Sept 10] and the USAF's SAGE [June 26].

IBM Selectric

July 31, 1961

The IBM Selectric typewriter introduced on this day was the first in a highly successful line of electric typewriters.

Instead of the usual typebar that swung up to strike an inked ribbon and page, the Selectric used a "typeball" (or more informally, a "golf ball"), that rotated and pivoted to the correct position before striking the ribbon. One advantage of this approach was that a typeball could be easily changed to print different fonts in the same document.

A Selectric typeball. Photo by Scs.

The Selectric also replaced the traditional typewriter's moving carriage with a paper roller (a "platen") that stayed in position while the typeball and ribbon mechanism moved from side to side.

Selectric-based devices came to be widely used as terminals, replacing Teletypes [April 00] and older typebar-based devices. One example was the IBM 2741 terminal, whose large character set (88 letters) because of its typeball figured prominently in the design of the APL programming language [Dec 17].

Unfortunately, Bob Bemer [Feb 8] unsuccessfully lobbied IBM to expand its typeballs to offer 128 characters so they could support the printable ASCII character set.

On [June 29] 1964, IBM introduced the "Magnetic Tape Selectric Typewriter" (MT/ST) which could record, edit, and replay typed material, making these machines among the first to provide word processing capabilities.

The IBM Pavilion [April 22] at the 1964 New York World's Fair was a large theater shaped and decorated to look somewhat like a giant Selectric typeball.

Eye Test

July 31, 2002

UK pensioner Joseph Dickinson, 103, had a shock when his local hospital called him in for an eye test and told him to bring his parents. "I must be getting younger, in fact much younger," he told his local paper, the *Hartlepool Mail*.

He was born in 1899, but because the hospital software only processed the last two digits of the year it mistook his age as just three years old.

For links to all date/time related problems, see [Jan 1].