Sept. 10th

Charles Sanders Peirce

Born: Sept. 10, 1839;

Cambridge, Mass.
Died: April 19, 1914

Peirce's work on relational logic was rediscovered by Alfred Tarski [Jan 14] in the 1940s, and went on to influence the development of relation algebra, and the relational database model [Aug 19].

In 1880–81, in an unpublished paper, Peirce showed how Boolean algebra could be represented by a single binary operation (logical NAND or NOR), anticipating Henry M. Sheffer's work by some 30 years.

Charles Sanders Peirce (1900). New York Public Library.

Pierce also noticed that Boole's [Nov 2] two-valued logic could readily lend itself to a description in terms of electrical switching circuits, which he described in a letter dated Dec. 30, 1886 sent to his former pupil Allan Marquand [Dec 10]. This influenced Marquand's design of his electrical logical machine, but this insight was forgotten until the mid-1930's when Claude Shannon [Aug 10], John Atanasoff [Aug 14], and Konrad Zuse [April 11] would all independently demonstrate that binary numbers and Boolean algebra were suited for computer design.

For more on logic machines, see those by Stanhope [Aug 3], Jevons [Sept 1], and Pastore [Nov 13].

Gunpei Yokoi

Born: Sept. 10, 1941;

Kyoto, Japan
Died: October 4, 1997

Yokoi is perhaps best known as the inventor of the plus-shaped control pad employed by nearly all video game controllers. He was also the co-designer of the "Game Boy" [April 21] with Satoru Okada.

Yokio claimed that the idea for his "Game & Watch" handheld system came to him while traveling on a bullet train in Japan. He noticed a bored businessman playing with a calculator, and realized a watch could double as a miniature video game screen.

In 1981, Yokoi supervised the development of "Donkey Kong" [July 9] by Shigeru Miyamoto [Nov 16]. Yokoi also worked with Miyamoto on "Mario Bros" [Sept 13], and proposed its multiplayer concept and giving Mario some superhuman abilities.

In his early years at Nintendo [Sept 23], Yokoi had developed toys, including: the "Ultra Hand", the "Ten Billion Barrel" puzzle, a miniature remote-controlled vacuum cleaner, a baseball throwing machine, and the "Love Tester." He had originally been hired in 1965 to repair conveyor belts.

Charles (Karoly) Simonyi

Born: Sept. 10, 1948;

Budapest, Hungary

Simonyi is the former head of Microsoft's application software group, and a two-time "space tourist" [March 26]. However, his career began at Hungary's Central Statistical Office in Budapest in the mid-1960s. While there, he taught himself how to program on a Russian-made URAL-2 [May 1], and developed a simple programming language for the URAL called Colur (Code Language for the URAL); it translated arithmetic statements into a form the URAL could understand.

After studying at Berkeley, Simonyi joined Xerox PARC [July 1], where he and Butler Lampson [Dec 23] developed the first WYSIWYG ("what you see is what you get") word-processor, Bravo [Oct 00], and its successor BravoX.

At Microsoft (as employee no. 40), he integrated these WYSIWYG ideas into Word [Sept 29] and Excel [May 2]. He also taught other programmers his Hungarian programming style. The Oxford English Dictionary includes Simonyi's notation as one of the meanings of "Hungarian."

In 1995, Simonyi established the "Simonyi Professorship for the Public Understanding of Science" chair at Oxford. Richard Dawkins [Nov 15] was the first person to sit in it, and in the foreword to his anthology, "The Oxford Book of Modern Science Writing" (2008) called Simonyi: "a sort of combination of International Renaissance Man, Playboy of the Scientific World, Test Pilot of the Intellect, and Space-age Orbiter of the Mind as well as of the planet".

DATAR on the Ball

Sept. 10-11, 1953

DATAR (Digital Automated Tracking and Resolving) was a computerized battlefield information system developed for the Royal Canadian Navy. It combined data from sensors deployed throughout a naval task force dispersed over a 80x80-mile grid. The collective information was transmitted to all the ships and displayed on radar-like displays. The system

was first successfully tested on Lake Ontario on this day.

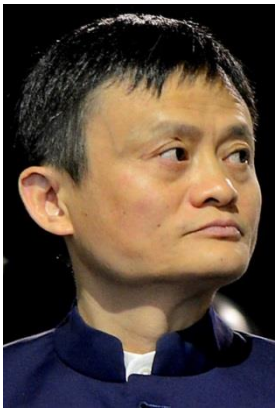
DATAR was primarily designed by Tom Cranston, Fred Longstaff and Kenyon Taylor, engineers at Ferranti Canada, and borrowed some ideas from the similar CDS [July 31] created for the UK's Royal Navy. For example, they chose a trackball as the primary input device, inspired by the "roller ball" device used in the CDS. This meant that a user could move a cursor over any object on the display to quickly obtain data on its heading, speed, altitude, or depth. Unfortunately for Ferranti, they never patented this trackball idea because DATAR was a secret military project.

Ma Yun (Jack Ma)

Born: Sept. 10, 1964;

Hangzhou, China

Until recently, Ma was the executive chairman of the Alibaba Group [April 4], one of the world's largest e-commerce businesses. The group began in April 1995, when Ma founded "China Yellowpages", China's first Internet-based company.



Jack Ma (2015). Photo by UNclimatechange. CC BY 2.0.

In 2003, Alibaba opened Taobao Marketplace, an online shopping site, and its rapid rise led to a purchase offer from eBay [Sept 3]. Instead, Ma obtained financial support worth a $1 billion [Aug 11] from Yahoo! [April 12] co-founder Jerry Yang [Nov 6].

Ma became the first mainland Chinese entrepreneur to appear on the cover of *Forbes* in July 2000, and has appeared there many times since then.

At a conference in 2010, Ma revealed that he had never written a line of code, nor made a sale to a customer. He acquired a computer for the first time when he was 33.

Archie Released

Sept. 10, 1990

Archie was the first search engine for the Internet which, before the Web, was mostly text, image, software, and database resources stored on FTP servers [Aug 16].

Archie (ARCHIvE server) was developed by Alan Emtage, Bill Heelan, and Mike Parker, three students at McGill University in Montreal. The aim was to index the contents of all those FTP servers and then provide keyword searching on that index. Also, Archie could be accessed in several different ways: using a software client; by telnetting to the Archie server; by e-mailing queries to that server; and (later) via the Web.

The story that the engine's name comes from the titular character in Archie Comics sadly seems to be untrue sadly. Nevertheless, other early Internet search technologies, such as Veronica [Nov 17] and Jughead [Sept 2], were named after characters from those comics because of the perceived Archie connection.

Operation Cybersnare

Sept. 10, 1995

A US secret service's "sting", codenamed "Operation Cybersnare," resulted in the arrest of six people and the seizure of at least twenty systems across several states. It was the first successful law enforcement operation of its kind, and more were to follow [March 1], [May 7], [July 22].

The evidence was collected through a dummy BBS called "Celco 51," which helped identify the people dealing in the stolen cellular telephone and credit card data.

Illegal Prime

Sept. 10, 2001

An illegal prime number represents information whose possession or distribution is legally forbidden. The first such prime was a 1401-digit number that began and ended with 48565...29443, and was proved to be prime by Phil Carmody on this day. When written in hexadecimal, the number corresponds to the text of a C program implementing the deCSS algorithm [March 00], when encoded as a gzip file [Oct 31].

The number was illegal because the deCSS code could bypass the digital rights management scheme used on DVDs of the time, and the distribution of such a program in the US was illegal under the Digital Millennium Copyright Act [Oct 28].

Subsequently, Carmody discovered another illegal prime, this one corresponding to the machine code for deCSS on a Linux i386.

Finding novel ways to distribute deCSS was quite popular at the time. They included: hiding it with steganography, printing the code on T-shirts, as MIDI music files, and as a 465-stanza haiku.