Radia Joy Perlman
Born: Dec. 18, 1951;
Portsmouth, Virginia

Perlman's invention of the spanning-tree protocol (STP) allowed the Ethernet protocol [May 22] to move beyond being able to cope with a couple of nodes, a limited distance apart, into something capable of handling large networks. STP increases the reliability of data delivery by letting a network contain redundant links which act as backups if a link fails. It also disables links when they aren't needed.

Later, she improved on STP with TRILL (TRansparent Interconnection of Lots of Links), which allows connectivity to vary based on the optimal use of the current bandwidth.

Inevitably, because of these contributions, she's sometimes referred to as the mother of the Internet, a title she dislikes.

As an undergraduate, Perlman developed a child-friendly version of LOGO [Feb 29], called TORTIS ("Toddler's Own Recursive Turtle Interpreter System"). She said later that she abandoned that work because "being the only woman around, I wanted to be taken seriously as a 'scientist' and was a little embarrassed that my project involved cute little kids."

MicroChess Shipped
Dec. 18, 1976

Microchess for the Kim-1 [April 00] was perhaps the first game program that could be purchased for a home computer. After six months of development by Peter Jennings, the first copy was shipped on this day, after being advertized in the Nov. 1976 issue of the

"KIM-1 User Notes". The entire program, including all the data, took up a compact 924 bytes.

Over the next ten years, Microchess was ported to many other machines, and several million copies were sold. In fact, Microchess lives on, running in an emulator for the 6502 [Sept 16] (the Kim-1's processor), and ported to a variety of microcontrollers including the Arduino [April 27].

Jennings has said that much of the chess knowledge embedded in the program was derived from the book "My System" by Aron Nimzovich (1930), and was also inspired by an article in *Scientific American* which discussed the state of chess playing programs, and included sample ALGOL code [Jan 11]. This may have been "System Analysis and Programming" by Christopher Strachey [Nov 16] which appeared in the special "Information" issue in [Sept 00] 1966. However, Strachey described checkers and gave examples in a functional language called CPL. In 2011, Peter Norvig [Dec 14] revisited Strachey 's article in a blog post (`https://norvig.com/sciam/sciam.html`) that talked about software vs. documentation.

Other contenders for first commercial microcomputer game include Encounter [Dec 21] and Cromemco's Dazzler version of Spacewar! [Nov 12].

Perl 1.000 Released
Dec. 18, 1987

Larry Wall [Sept 27] designed Perl to be a general-purpose UNIX scripting language with extra features to make report processing easier. It became known for its powerful regular expressions support, and was used widely for system administration, network programming, finance, bioinformatics, and others. In 1998, it was called the "duct tape that holds the Internet

together". It also has the nickname "the Swiss Army chainsaw of scripting languages" because of its flexibility and dangerous levels of power.
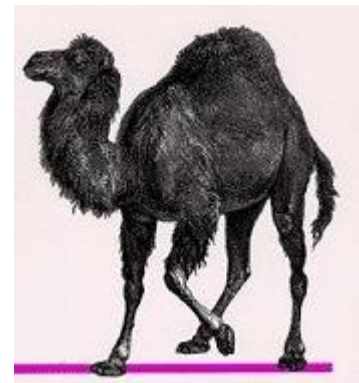
The camel on the cover of the first edition of "Programming Perl" (1991).

The O'Reilly textbook, "Programming Perl", by Wall and Randal L. Schwartz [Nov 22] (and in later editions, Tom Christiansen), features a camel on the cover and so, of course, is called the "Camel Book". This image eventually became Perl's unofficial symbol, as well as a general hacker emblem, appearing on T-shirts and other items.

Though Perl isn't an acronym, various backronyms have been suggested, including "Practical Extraction and Reporting Language," and also (the less likely) "Pathologically Eclectic Rubbish Lister"

Perl 6, began as a redesign of Perl 5 in 2000, and eventually evolved into a separate language. Wall presented his designs for Perl 6 in a series of documents called "apocalypses"

Schwartz once said, "Yes, sometimes Perl looks like line noise to the uninitiated, but to the seasoned Perl programmer, it looks like checksummed line noise with a mission in life."

Indeed, one of Perl's areas of expertise is "Perl Golf", where a programmer attempts to write the shortest program to accomplish some goal. The term was coined by Greg Bacon in 1999, but the history of "golf" stretches back to the earliest days of programming.

Another apt quote, this time by Keith Bostic: "Perl - The only language that looks the same before and after RSA encryption."

HTML 4.0 Published
Dec. 18, 1997

The W3C (World Wide Web Consortium [Oct 1]) released version 4.0 of the HTML standard (codenamed "Cougar"). It adopted many new element types and attributes, and also sought to phase out Netscape's visual markup features in favor of CSS [Oct 10].

HTML 4.01 was published two years later (Dec. 24, 1999), and remained the standard for well over a decade, with a few minor changes, until version 5 [Oct 28].

The time interval between versions 4 and 5 was due to something of a schism in the HTML ranks, resulting in the creation of the "Web Hypertext Application Technology Working Group" (WHATWG [June 4]) . It offered a somewhat different path to improving HTML from W3C's "HTML Working Group" (HTMLWG).

Another important group of this period was the "Web Standards Project" (WaSP [Aug 10]), which endeavored to persuade all the main browser vendors to support version 4.01.

You've Got Mail
Dec. 18, 1998

"You've Got Mail", a romantic comedy, directed by Nora Ephron, and starring Tom Hanks and Meg Ryan, was released by Warner Brothers.

Hank's character, a corporate businessman, uses a no-nonsense PC while Ryan's artistically-inclined character, a small bookshop owner, possesses a Macintosh PowerBook [Oct 21] (either a G3 "Kanga" or a 3400c, no one is quite sure).

Their romance develops through the exchange of email using AOL [Oct 2] accounts. Hank's online name is "NY152" and Ryan's is "Shopgirl".

The characters use AOL version 4.0 which was in beta when the film was being made and, according to AOL's rules, at least one of the messages would have caused the software to report a "You have exceeded the send limit" error.

The closing song starts with an adaptation of the "startup" sound from Windows 95 [May 15].

The film's title comes from the AOL notification voice clip for incoming e-mail. It was recorded by Elwood Edwards, a voice-over actor and husband of an early America Online employee. (He was also responsible for the less iconic messages, "Welcome," "Goodbye," and "File's done!"). It was estimated that at the height of AOL's popularity in the mid-1990's, Edwards' voice was heard more than 35 million times a day. However, only in the US; in the UK, a female vocal was utilized instead.