Jan. 31st

David Patrick Reed

Born: Jan. 31, 1952;

Needham, MA

Reed proposed the User Datagram Protocol (UDP) in 1978, which went on to become one of the core protocols within TCP/IP. TCP [Sept 9] provides reliable data transmission, so is complex and relatively slow. UDP makes no reliability promises, which makes it simpler and faster.

David P Reed. Photo by a family member. CC BY-SA 3.0.

Reed contributed other features to TCP/IP, including source routing, link header compression, and IP signals.

In 1984, Reed, Dave Clark [April 7] and Jerry Saltzer [Oct 9] wrote the first paper on the end-to-end principle. It argued that host computers, rather than network nodes, should be responsible for application-specific functionality. In other words, the network should simply route data, and so offer 'net neutrality'.

Reed's PhD thesis probably contains the first detailed description of multiversion concurrency control (MVCC), a method now commonly used by database management systems. It supports safe concurrent access to a database via transactional memory.

He also developed Reed's law which states that the utility of large networks, such as social networks, grows exponentially with their size.

Guido van Rossum

Born: Jan. 31, 1956;

Haarlem, Netherlands

Van Rossum created Python, a language named in honor of the UK comedy show and troupe, *Monty Python's Flying Circus* [Oct 5], which was never intended to be associated with the snake. That was forced upon him by a publisher who didn't want to license "Monty Python" artwork for a book cover.

Python is versatile enough to be used both for advanced programming problems and as a teaching tool. It has mostly ousted BASIC [May 1] from the high-school curriculum, even though as Cory Dodt noted: "Python's a drop-in replacement for BASIC in the sense that Optimus Prime [Sept 26] is a drop-in replacement for a truck."

Van Rossum began working on the language as a hobby project during Christmas 1989, and version 1 was released on Feb. 20, 1991 as free software with a modified MIT license. In 2001 he founded the Python Software Foundation to safeguard the language's open source status.

Experienced Python users are often called Pythonists, Pythonistas, or Pythoneers. Van Rossum is known as a "Benevolent Dictator For Life" (BDFL) [April 18], although in July 2018 he stepped down from that exalted position.

Open Letter to Hobbyists

Jan. 31, 1976

Micro-Soft [April 4] received a $30 to $60 royalty for every copy of Altair BASIC [Jan 2] that MITS sold. At the end of 1975, MITS was shipping a thousand Altair 8800s [Dec 19] per month but BASIC was only selling in the low hundreds. A related fact perhaps was that copies of a pre-release version of Altair BASIC were being given away at the Homebrew Computer Club [March 5], and probably at many other gatherings of computer folk.

In response, Bill Gates [Oct 28] wrote a "Open Letter to Hobbyists," in his role as "General Partner Micro-Soft". The letter expresses abject dismay at the rampant copyright infringement of software by the hobbyist community, particularly with regards to Altair BASIC. Gates argued that this actively discouraged developers from investing time and money in creating high-quality software.

Two quotes to savor:

"As the majority of hobbyists must be aware, most of you steal your software."

"Nothing would please me more than to be able to hire ten programmers and deluge the hobby market with good software."

Gates' letter was published in MITS's "Computer Notes" #9 (Feb. 3, 1976), and the copy posted to the Homebrew Computer Club appeared in Vol 2, No.1 of their newsletter [March 15] with today's date..

Gates later estimated that he received several hundred replies, but only five or six contained payment for the software. The other letters were less than complimentary, and the Southern California Computer Society even threatened to sue him for calling hobbyists thieves.

It didn't deter the gallant campaigner, who published a follow-up in "Computer Notes" #11.

Call the COPS

Jan. 31, 1989

The "Computer Oracle and Password System" (COPS) was

the first vulnerability scanner to be widely used in the UNIX world. It was written by Dan Farmer while he was a student at Purdue, under the guidance of Gene Spafford [March 00], and in response to the malign effects of the Morris Worm [Nov 2].

COPS was actually a dozen or so tools that audited different parts of an OS. There were checks of file permissions, password strength, root access levels, and email configuration.

Farmer went on to develop the SATAN (Security Administrator Tool for Analyzing Networks) vulnerability scanner [March 8], TITAN (1998) with Brad Powell and Matt Archibald, and "The Coroner's Toolkit" (2009) with Wietse Venema.

Another popular COPS successor was Crack [Nov 3].

Nigerian Prince Needs Help

Jan. 31 1990

Perhaps the longest-lived, and certainly the best known, type of email spam [March 31] is the "419 scam". Typically, an email arrives promising the victim a significant share of a large sum of money, in return for a small up-front payment.

Another name for the "419" is the "Nigerian Prince scam" since the deal often involves a Nigerian prince seeking to transfer a large sum out of the country. In 2018, it was estimated that Americans lost over $700,000 to "Nigerian Prince" scam emails, with each victim losing an average of just over $2,100.

The "419" name originated on this day when the Nigerian Criminal Code act came into force. In particular, part 6, chapter 38, section **419** of the act deals with 'cheating' – the obtaining of property by false pretenses.

The expression '419' is quite popular in Nigeria, and it's not unusual to see notices outside residences that warn: 'Beware of 419. This house is not for sale'.

Locally, Nigerian scammers are sometimes called "Yahoo Boys," because many of them used to target people on Yahoo!. There's even a rap song about it: "Yahooze".

Nowadays, it's a bit unfair to single out Nigeria since most 419 scams originate from the USA and UK. Also, this type of scam long predates the Web or Internet. In the 17th century, it was known as the "Spanish Prisoner" fraud. The victim would receive a letter from a prisoner claiming to know the location of buried treasure. The convict needed money to bribe his guards so he could escape and claim the treasure. In return for this small sum, the inmate promised to share the recovered riches.

OLPC

Jan. 31, 2005

At the World Economic Forum in Davos, Nicholas Negroponte [Dec 1] announced the OLPC (One Laptop Per Child) project. The goal was to create a $100 laptop for the developing world, complete with educational software based around Seymour Papert's [Feb 29] constructionist learning ideas; at the time, a typical laptop cost $1,000 or more.

On Nov. 16, 2005, Negroponte and United Nations Secretary-General Kofi Annan unveiled a prototype called the OLPC XO, or "the green machine" (due to its color scheme). A working version was demonstrated on May 23, 2006, and began shipping in Nov. 2007.

The XO-1 ran a slimmed-down version of Fedora Linux [March 14] and a GUI named Sugar (which all children love). The hardware included a camera, microphone, Wi-Fi, and a hybrid stylus/touch pad.

In addition to a standard power supply, human power (via a hand crank) and solar power could be employed, allowing for operation away from a power grid. Sadly, the crank idea was soon abandoned.

The market for the XO-1 was undermined by the arrival of commercial "netbooks" in late 2007, including the Eee PC [Oct 16], which cost around $400 (twice the price of an XO-1). Negroponte later said that the OLPC deserved credit for helping drive down computer prices during this time.

The rotatable display of the XO-1. Photo by the Fuse-Project. CC BY-SA 2.5.

The netbook form factor was surprisingly short-lived, being quickly superseded by budget Android [Nov 5] smartphones during the 2010's. Nevertheless, it was estimated that more than 2 million laptops had been deployed for primary education by 2011, but this was much less than the original estimate of 5 to 15 million.

OLPC was also criticized for encouraging countries to invest in costly hardware when they had more pressing basic needs, such as access to clean water and school buildings. There were also substantial hidden costs associated with the project such as maintenance.

The OLPC Foundation was disbanded in early 2014.

Null Island on Natural Earth

Jan. 31 2011

Version 1.3 of Natural Earth was released, a public domain map dataset at 1:10m, 1:50m, and 1:110m scales.

One of the new features was Null Island, a fictitious, 1 meter square island located at coordinates 0,0 (zero latitude, zero longitude), placing it off the coast of Africa, south of Ghana and Togo. It was added to make it easier to flag geocoding errors.

Its position is based on the World Geodetic System 1984 (WGS84), a standard for the US Department of Defense and the Global Positioning System (GPS [Feb 22]).

Pictures of the location reveal no island, but there is a NOAA weather observation buoy called Station 13010 (aka “Soul”) permanently anchored there. Soul collects data on air and water temperatures, wind speed and direction, and other variables as part of the Prediction and Research Moored Array in the Atlantic (PIRATA) programme.

Something very like Null Island, but called Zero Zero Island, featured in The "Colonel Bleep" US cartoon show, which was first shown in 1957. Headquartered on the island, Colonel Bleep, a futuristic alien from the planet Futura, protects Earth with the help of his two deputies.