

Oct. 27th

## Stephen S. Wolff

**Born: Oct. 27, 1932;**

Maryland

While Wolff was the director for networking at the National Science Foundation (NSF), he managed the development of the NSFNET [July 16] - the first open network in the US for research and higher education.

He was also the editor of the RFC series [April 7] from its inception in 1969 until 1998, a founding member of the Internet Architecture Board (IAB [Jan 16]), and the first individual member of the Internet Society [Jan 1]. He also found time to spend 14 years leading a computing team at the US Army Research Lab.

In 2011, he became the CTO of Internet2, a nonprofit consortium owned by several US universities which serves more than 60,000 institutions.

*The Economist* once dubbed him a "god" of the Internet.

## Gerald Marvin Weinberg

**Born: Oct. 27, 1933;**

Chicago, Illinois

Weinberg is known for his work on the psychology of computer software development, and especially for the textbook, "The Psychology of Computer Programming" (1971). He's also a master of the bot mot, including:

- Weinberg's Second Law: If builders built houses the way programmers built programs, the first woodpecker to come along would destroy civilization.
- Asking for efficiency and adaptability in the same program is like asking for a beautiful and modest wife. Although beauty and modesty

have been known to occur in the same woman, we'll probably have to settle for one or the other. At least that's better than neither.

## DAC-1

**Oct. 27-29, 1964**

"Design Augmented by Computer" (DAC-1) was one of the earliest graphical CAD systems, co-developed by General Motors (GM) and IBM, and publicly unveiled at the Fall Joint Computer Conference in San Francisco. However, the system was first demoed at IBM's Kingston site in Dec. 1962, an event so well attended that bleachers were set up so that all the attendees could see the terminal screen.



Screenshot of a 1964 video on the DAC-1. Youtube. Uploaded by stewx8.

The DAC-1 utilized an early form of time-sharing that automatically switched between terminals. It also introduced a friendly user-oriented design language, the Descriptive Geometry Language (DGL). For example, it directly supported geometrical operators for creating shapes.

The initial hardware design was based around a capacitance screen with a metal pencil used for input. It was quickly discovered that holding the pen up to the monitor was extremely tiring, so that idea was abandoned. The team later visited Douglas Engelbart's lab [Jan 30] where they encountered

a computer mouse for the first time, and based their subsequent designs on that approach.

In Nov. 1963, the DAC-1 produced the first computer-designed auto part: a trunk lid. A 2D sketch was read in, cleaned up on the terminal, converted into 3D coordinates, and sent to a milling machine.

GM continued to use the DAC system (with modifications) well into the 1970's.

## FLODAC Reported

**Oct. 27-29 1964**

FLODAC (short for "Fluid Operated Digital Automatic Computer") was built entirely out of fluid-based NOR gates, requiring around a total of 250 to implement memory, arithmetic, control, and input/output. The NOR gate approach had evolved out of earlier work on a fluid amplifier at the US Army's Diamond Ordnance Fuze lab.

A paper about FLODAC was presented at the Fall Joint Computer Conference in San Francisco on this day by Richard S. Gluskin, Marvin Jacoby, and Trevor D. Reader, who were all engineers in the Univac division at Sperry Rand [Jan 25].

The major drawback of this approach was that the speed of fluid signal propagation was almost a million times slower than propagation in electric wires. However, the paper pointed out that "fluid logic" might still find a niche in extreme environments, such as those involving high radiation levels or temperatures.

For more water-based computers, see [March 4]; [Nov 29].

## First Major Network Crash

Oct. 27, 1980

The ARPANET [Oct 29] stopped functioning for approximately four hours when the routing processes in all of its Interface Message Processors (IMPs [Aug 30]) crashed.

The crash started when IMP29 began dropping bits as the result of hardware failure. IMP29's job was to act as the communication pathway for another node, IMP50. Because of the bit dropping, IMP50 received messages with bad timestamps, which it broadcast across the network. This upset a garbage-collection algorithm that turned out not to know what to do with multiple copies of the same message with different time stamps. The result was that the memory of every IMP quickly filled up.



The front panel of the first IMP. Photo by FastLizard4. CC BY-SA 3.0.

A Jan. 1981 report on the incident suggested an easy fix: change a test in the garbage collector code from using a ">=" to a ">". The report also revealed that the IMPs already included an onboard system for detecting bit-dropping errors, but they'd all been turned off.

## Drexel Requires Computers

Oct. 27, 1982

Drexel University in Philadelphia became the first college to require its students to own a personal computer (it suggested buying an Apple Mac [Jan 24]). In another first, the press release said that the computer would come supplied with a free "house", unfortunately a typo for "mouse".

Arguably Drexel wasn't quite the first since Clarkson College of Technology in Potsdam, NY, had announced on Oct. 3 that all 1,000 of its freshmen would be 'given' a Zenith Data Systems Z-100 [July 00] for their class work. They weren't free though – the purchase cost would be added to each student's tuition fee spread over the next four years, so they'd own the computer by the time they graduated.

## NEC UltraLite

Oct. 27, 1988

The NEC UltraLite laptop was launched shortly before COMDEX [Dec 3] at a gala event in NYC. *PC Magazine* featured the UltraLite on its cover and journalists began referring to it as a "notebook" to distinguish it from the larger and heavier laptops of the time.

It featured a stylus for input, and handwriting recognition. Weighing just 4.3 pounds, it was trim (A4 size) and portable. But there were two technical drawbacks: the lack of a hard drive and a relatively slow 8086-compatible processor [June 8] when the rest of the market was moving towards the faster 80286 [Feb 1].

## HotWired Launched

Oct. 27, 1994

"HotWired" was the first commercial web magazine, and introduced the world to the banner ad. The first one was probably AT&T's, which asked 'Have you ever clicked your mouse right here? You will.' It reportedly achieved a 78% CTR [Sept 20].

In total, 14 advertisers signed up initially, marking the beginning of the Internet advertising industry. This also meant that the HotWired site sported several banner ads that could count as being first. All of them (then called "graphical ad units") were designed by Frank D'Angelo from the ad agency Messner Vetere Berger McNamee Schmetterer.

HotWired was also the first to measure the effectiveness of its online advertising, and among the first to attempt behavioral targeting.

Andrew Anker, *Wired* magazine's [Jan 2] then vice president and CTO, wrote the HotWired business plan. In April 1994, he became HotWired's first CEO, and oversaw its development. Over the next few years several other sites were spawned from HotWired's success, including "Wired News", Webmonkey, "The Netizen", Suck, and the HotBot search engine.

## Intel and DEC Settle

Oct. 27, 1997

On May 14, DEC had filed a lawsuit in federal court alleging that Intel's Pentium line [March 22] of chips infringed on ten of DEC's patents. In particular, DEC said that its Alpha chip [Feb 25] – the fastest on the market – had failed to catch on largely because Intel used Digital technology to enhance the performance of its Pentiums.

Intel naturally fired back with a counterclaim that DEC had misappropriated its trade secrets.

Today saw Intel and DEC settle the lawsuit, entering into a ten-year cross-licensing agreement. Intel purchased DEC's chip-making plants for about \$700 million, and began fabricating Alpha processors for DEC. In turn, DEC began making servers and workstations based on Intel's IA-64 architecture.

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## League of Legends Released

Oct. 27, 2009

League of Legends (LoL, for short) is a multiplayer online game developed by Riot Games, and inspired by Warcraft III [Nov 23]. The game follows a freemium model, supported by micro-transactions.

In Sept. 2016 the company estimated that there were over 100 million active players in the game each month. This level of interest is due in large part to Riot Games' League Championship Series (LCS), which consists of regional competitions, culminating in an annual World Championship. The 2019 Championship had 100 million viewers, including a peak of 44 million concurrent viewers during the competition's final round on Nov. 10.

Riot Games was co-founded by Brandon "Rye" Beck and Marc "Tryndamere" Merrill, who were roommates when they attended the University of Southern California.

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