## Oct. 2nd

#### Stooky Bill is Seen Oct. 2, 1925

Scottish inventor John Logie Baird [Aug 13] produced the first recognizable image on the world's first working TV. Being constantly short of funds, he had built the device from assorted scrap materials, including an old hatbox, a pair of scissors, bicycle light lenses, and sealing wax and glue.

His invention, which he termed a "televisor," used rotating disks to scan objects as electrical impulses via a photocell. The signals were displayed on a screen as a low-resolution greyscale image.



A modern replica of Stooky Bill (2009). Narrow Bandwidth Television Association. Photo by G1MFG.

The first image produced was of a ventriloquist's dummy Baird nicknamed "Stooky Bill". After Stooky, he produced pictures of William Edward Taynton, a 20 year-old who worked in the offices below Baird's attic lab.

Subsequently, looking for publicity and funding, Baird tried to interest the *Daily Express* newspaper in his invention. The news editor was terrified and told one of his staff: "For God's sake, go down to reception and get rid of a lunatic who's down there. He says he's got a machine for seeing by wireless! Watch him - he may have a razor on him."

The first public demonstration of the system, and Stooky, occurred on [Jan 26] 1926. In later years, the system was put on display in the London Science Museum, along with Stooky's head.

### Edward N. Fredkin Jr.

#### Born: Oct. 2, 1934;

Los Angeles, California

Fredkin is the inventor of the trie data structure (a search tree that utilizes string prefixes), and the Billiard-Ball Computer Model for reversible computing with cellular automata. The model utilizes Fredkin gates, which support a form of reversible bit swapping.

His interest in cellular automata [Dec 26], led to his support of "Digital Philosophy" which claims that all natural physical processes are types of computation. Other learned advocates include Konrad Zuse [June 22] and Stephen Wolfram [May 18].

Fredkin founded the DEC user group, DECUS [March 00], and persuaded BBN [Oct 15] to buy the first PDP-1 [Nov 00]. It came with no software, so Fredkin wrote an assembler called FRAP (FRedkin's Assembly Program), one of the first time-sharing OSes [Jan 1] for it, and he and Ben Gurley [Nov 00] modified the machine to support interrupts. He was also responsible for the program that operated the scissors that cut the ribbon at the machine's inauguration. Naturally, he called the PDP-1 "the world's first 'fun' computer."

In the fall of 1961 Fredkin left BBN to form Information International Inc. (aka "Triple I" [Oct 00]), to build high precision monitors, and the company went on to play an important role in the development of computer graphics. Fredkin is credited with inventing the "walking" disk drive at MIT. According to the story, he wrote a program that made an IBM tape drive stop so suddenly after reaching its top speed that it caused the device to rock back and forth, move around, and occasionally fall over.

The character Stephen Falken in the film "WarGames" [June 3], was modeled after Fredkin.

# Martin Edward Hellman

Born: Oct. 2, 1945; the Bronx, NYC

Hellman is best known as the coinventor of public key cryptography with Whitfield Diffie [June 5]. A message sender uses the recipient's public (widely known) key to encrypt his data, and the recipient decrypts the message with his or her private (top-secret) key. Aside from encryption, the keys can also be used as digital signatures.

Diffie and Hellman worked lacked a practical implementation, but this was supplied later by Ronald Rivest [May 6], Adi Shamir [July 6], and Leonard Adleman [Dec 31] with their RSA algorithm.

Hellman is an active speaker on computer privacy issues, and a keen speed skater and glider pilot.

## Guy Lewis Steele Jr.

Born: Oct. 2, 1954; Missouri, USA

Steele is sometimes called "The Great Quux" due to his invention of the variable name "quux", which is used in much the same way as "foo" and "bar" [March 10]. Perhaps more importantly, he and Gerald Jay Sussman [Feb 8] created Scheme [Dec 22], and helped to define a parallel version of Lisp called \*Lisp (Star Lisp). In 2005, he led a team at Sun that produced Fortress, a high-performance replacement for Fortran. He has served on the standards bodies that define Common Lisp, Fortran, C, ECMAScript [Aug 13], and Scheme.

Earlier in his career, David Moon and Steele wrote the original EMACS text editor in 1976 in the form of a set of Editor MACroS for TECO [Oct 29].

His version of the "Jargon File" was published as "The Hacker's Dictionary" in 1983, and was illustrated with Steele's *Crunchly* cartoons. The follow-up, "The New Hacker's Dictionary," was edited by Eric Raymond [Dec 4].

Steele is a Western Square dancer, has published chess problems and sonnets, and played Lun Tha, a Burmese scholar, in "The King and I."

A quote: "Being forced to write comments actually improves code, because it is easier to fix a crock than to explain it."

#### End of the ENIAC Oct. 2, 1955

After eight years [July 29] of loyal service at the Ballistic Research Laboratory (BRL) in Maryland, the ENIAC [Feb 15] was decommissioned at 11:45pm today.

Some of the retired hardware went to good homes: Arthur Burks [Oct 13] donated four ENIAC panels to the University of Michigan, and the Smithsonian obtained several, but most of the machine just disappeared. Altogether the ENIAC used around 40 panels, with each one about 2 feet wide, 2 feet deep, and 8 feet high.

In 2006, Ross Perot [June 27] decided to mount a computing history display at his company headquarters in Plano, Texas. Libby Craft, Perot's director of special projects, was dispatched in search of the ENIAC.

She found nearly a quarter of its hardware in storage at Fort Sill in Oklahoma, home to the Army's field artillery museum. Craft struck a deal to borrow eight ENIAC panels in exchange for restoring them.

After Perot's company was purchased by Dell in 2009, seven of the eight panels were returned to Fort Sill, where they are now on display.

#### ANITA Launched Oct. 2, 1961

The ANITA Mark VII and Mark VIII, built by the Bell Punch Co. in the UK, were the first allelectronic desktop calculators. Their logic circuits were built around vacuum tubes; the first fully transistorized desktop calculator was probably the Friden EC-130 [June 00].

The acronym 'ANITA' either stood for "A New Inspiration To Arithmetic", or "A New Inspiration To Accounting", though there were rumors that it was actually the name of the designer's wife. The project leader, Norbert (Norman) Kitz, had worked on the Pilot ACE [May 10], and with Andrew Booth [Feb 1] at Birbeck.

Earlier designs (I through VI), never reached production, and a quirk of timing meant that the the Mark VIII was released a few days before the Mark VII.

### The Rollkugel Oct. 2, 1968

The Telefunken Rollkugel (rolling ball) was pushed over a table to displace a cursor on an attached SIG-100-86 vector graphics terminal, thereby simplifying operations such as drawing a shape.

The device was based on an earlier trackball device (also called the Rollkugel) built into radar flight control desks developed by Rainer Mallebrein at Telefunken.

In 1965, Mallebrein and his team came up with the idea of "reversing" the Rollkugel to turn it into a mouse-like device. Unfortunately for Telefunken, it considered the invention too unimportant to patent, but a description of the mouse-like Rollkugel, written by Günter Neubauer, appeared in Telefunken's technical journal on this day, a few weeks before Doug Engelbart's "The Mother of All Demos" [Dec 9]. However, Engelbart had been working on his mouse since the early 1960s [Nov 14].



A Telefunken Rollkugel. Photo by Marcin Wichary. CC BY 2.0.

Instead of Engelbart's three buttons, the Rollkugel used one, which coincidentally made it quite similar to the mice that eventually appeared on the Apple Lisa [Jan 19] and Mac [Jan 24]. Also, the Rollkugel circular shape was very reminiscent of the iMac hockey puck [May 6].

### America Online Oct. 2, 1989

America Online (AOL) was originally a dial-up service called Quantum Link [Nov 5] which provided chat rooms, an e-mail service, and games. Quantum and Apple launched "AppleLink Personal Edition" on [May 20] 1988, and Quantum soon followed with "PC Link", a similar service for IBMcompatibles developed with Tandy. After Quantum parted ways with Apple, the company changed the service's name to America Online on this day.

America Online for MS-DOS was launched in Feb. 1991, followed a year later by a Windows version. In September 1993, AOL added USENET [Jan 29] access, triggering the "Eternal September" [Jan 26]. This coincided with AOL's "carpet bombing" marketing campaign of free trial disks. At one point, 50% of the CDs produced worldwide had an AOL logo printed on them.



AOL CDs sent to a student dormitory in Germany. Photo by Zuse. CC0.

AOL quickly passed GEnie [Oct 1] in popularity, and Prodigy [Feb 13] and CompuServe [Sept 24] in the mid-1990s. In Jan. 2000, AOL and Time Warner announced plans to merge, and closed the deal on [Jan 11], 2001. The marriage proved less than successful, and AOL was spun off in 2009. On June 23, 2015, it was acquired by Verizon [July 28] for a mere \$4.4 billion.

### AIM for Power Oct. 2, 1991

At a press conference in San Francisco, Apple, IBM, and Motorola formalized their AIM alliance to produce and promote PowerPC processors.

Two companies, Taligent [next entry] and Kaleida Labs, were formed to advance AIM's plans. The idea was that Kaleida would create a revolutionary objectoriented, cross-platform multimedia scripting language for the PowerPC called ScriptX; the company folded in 1995.

The PowerPC 601 was the first chip to support the 32-bit PowerPC instruction set, and debutted inside the IBM RS/6000 workstation in October 1993, and later in the Apple Power Mac [March 14]. Almost every Mac featured a PowerPC processor until 2006 when the company moved to Intel CPUs [June 6].

Richard Shaffer, publisher of *Computer Letter*, said of the Apple-IBM team up: "It's like a surfer girl marrying a banker."

Robert Stearns, vice-president of corporate development at Compaq Computer, said that people supporting the PowerPC "are smoking dope. There's no way it's going to work."

AIM should not be confused with "AIM" (Advanced Idea Mechanics) – a group of international science-terrorists that appear in Marvel comics.

#### Taligent Oct. 2, 1991

Taligent (a portmanteau of talent and intelligent) was the name of an object-oriented OS, and the company that was building it. It had begun as the Pink OS project [April 12] at Apple, working on a replacement for Macintosh System 7 [May 13].

When Apple joined IBM in the AIM alliance [previous entry], Pink was spun off as a joint venture to compete against Microsoft Cairo [Dec 14] and NeXTSTEP [Sept 18].

Two years later, after a lacklustre reception from customers, the OS was rebadged as an object-oriented programming environment. This "face lift" of Taligent would later become known in the industry as the archetypal project "death march."

Apple pulled out of Taligent in 1995, and set up its Copland project [May 8] to replace System 7; that also ran into trouble.

Nevertheless, in July 1995, IBM delivered a set of libraries based on Taligent, known as CommonPoint, which saw little use and quickly disappeared. Taligent was officially dissolved in Jan. 1998.