July 29th

Vladimir Kosmich Zworykin

Born: July 29, 1888;

Murom, Russia
Died: July 29, 1982

Zworykin is a member of the trinity of "fathers of television", alongside Philo T. Farnsworth [Aug 19] and John Logie Baird [Aug 13].

Vladimir Kosmich Zworykin.

In the late 1920s and early 1930s, he headed a team at RCA that developed the iconoscope, which transformed light into electrical signals, and the kinescope, which converted those signals into patterns that could be seen on a screen. The iconoscope and kinescope, which both utilized cathode ray tubes, finally made modern television practical.

In January 1936, Jan Aleksander Rajchman [Aug 10] joined Zworykin's lab, where he developed the computron (1941), a tube that could perform parallel addition and multiplication, and the selectron (1946), the first storage vacuum tube.

Apparently, Zworykin's favorite part on the modern TV set was: "The switch… the switch to turn the damn thing off".

ENIAC Moves

July 29, 1947

With the ENIAC now completed [Feb 15], it was time to deliver it to the US Army Ordnance Corps who had funded its development [April 8].

The machine was shut down on November 9, 1946 at the Moore School [July 8], and transferred to Building 328 of the Ballistic Research Laboratory (BRL) at the Aberdeen Proving Ground in Maryland, where it became operational on this day. It remained in (near) continuous operation for eight years until [Oct 2], 1955, with its main job being the creation of firing tables for artillery and mortars. A complicated ballistics problem could require around a 1,000,000 cards to be expressed in code.

John Holberton oversaw BRL's team of ENIAC operators and programmers until June 1951. In 1950 he married Betty Snyder [March 7], one of the Refrigerator Ladies [May 00].

ARPANET Requested

July 29, 1968

By mid-1968, Larry Roberts [Dec 21] had finished his plans for building a computer network, and handed in his report to Bob Taylor [Feb 10] at ARPA [Feb 7] on June 3, who approved it on June 21.

The network was to be composed of small computers called Interface Message Processors (or IMPs), functioning as gateways to bigger, local machines. The IMPs would performed store-and-forward packet switching, and be interconnected with leased phone lines via modems. Packet switching had been developed independently by Paul Baran [April 29] at RAND in the US and Donald Davies [June 7] at the NPL in the UK in the early 1960s.

A Request for Quotations (RFQ) was issued to 140 potential bidders on this day. Most of them regarded the proposal as too outlandish, and only twelve groups actually submitted bids. ARPA awarded the contract to BBN Technologies [Nov 00] on April 7, 1969.

The initial ARPANET, including the hardware and the packet switching software, was designed and installed in just a few months [Aug 30], but it only consisted of IMPs at four institutions [Dec 5]: UCLA, SRI, UCSB, and Utah. The first successful message was sent on [Oct 29] 1969 between UCLA and SRI.

By 1971, the network had grown to a massive set of fifteen nodes, and in 1973, University College London (UCL) and the Royal Radar Establishment in Norway become the first international connections.

Bill Sux

July 29, 1998

A microscopic photo of a chip with the phrase "Bill Sux" etched in amongst the circuitry began making its way around the Internet. The accompanying message said: "Time magazine reports an interesting case of high-tech graffiti. It seems that a couple of Intel [July 18] engineers working on the design of a recent version of the Pentium microprocessor [March 22] included a message that describes their feelings about Bill Gates [Oct 28], president of Microsoft, a good corporate pal of Intel's."

Of course the photo was a fake, and the unedited version of the image was soon traced to the cover of the second edition of Darrell Duffie's book "Dynamic Asset Pricing Theory" (1996). Strangely, the picture was changed when the 3rd edition of the book came out in 2001.

Yahoo! Search Goes Bing

July 29, 2009

Prev: [May 3] Next: [June 13]

Microsoft and Yahoo! [March 2] announced a merger of the two companies' Web operations in a deal intended to attack Google's search engine dominance.

Yahoo! searches would now be powered by Bing's search engine algorithms [June 3] and Microsoft's adCenter [Feb 18] would drive Yahoo's advertising.

The following day, Yahoo's share price dropped more than 10% to just $15.14, which was 60% lower than Microsoft's failed takeover bid of the previous year [May 4].

Many commentators later marked this event as when Yahoo! stopped being a place for engineers, and became an entertainment portal.

WikiLeaks Insurance

July 29, 2010

WikiLeaks [Oct 4] added an AES-256 [Jan 15] encrypted 1.4 GB "Insurance file" to its Afghan War Diary page.

There was speculation that the file was meant to serve as a form of insurance in case the website or its founder Julian Assange [July 3] were harmed, upon which the passphrase would be published.

However, in 2011, an ongoing argument between Assange and his former German spokesman Daniel Domscheit-Berg led to the accidental release of the file's passphrase. The file was found to contain around 251,000 unredacted US diplomatic cables.

Since this insurance policy had worked so well, WikiLeaks released a new 88 GB "Insurance file" on June 17, 2016, once again locked with 256-AES encryption.

Windows 10

July 29, 2015

Prev: [Oct 26]

Windows 10 received mostly positive reviews upon its release, mainly due to the decision to provide a desktop-oriented interface rather than the detested tablet-oriented approach of Windows 8.

Popular new features included: the replacement of Internet Explorer [Aug 16] by Microsoft Edge, an improved development framework called the Universal Windows Platform (UWP), DirectX 12 [Sept 30] for games development, and Xbox [Nov 15] Live integration. Much less popular were mandatory updates, and data collection performed automatically by the OS.

However, the really important question was why the jump in "Windows" numbering from 8 to 10? One answered appeared in May 2015, when Joe Belfiore (who was then Corporate VP of OSes at Microsoft) was photographed wearing a T-shirt bearing binary-coded messages in each quadrant of a Windows logo. One of those messages was decoded to read: "Windows 10, because 7 8 9." A more technical possibility is that a lot of legacy code checks for Windows 95 or 98 by looking for the string "Windows 9". Adding an actual "Windows 9" would break those tests.

Equifax Hack

July 29, 2017

Equifax is one of the largest consumer credit reporting agencies, collecting information on over 800 million individuals and more than 88 million businesses worldwide.

On this day, it discovered a cyber-security breach which had occurred between mid-May and July 2017.

Approximately 145 million US consumers' personal data had been stolen, including their names, social security numbers, birth dates, addresses, and driver license numbers.

On March 1, 2018, Equifax added another 2.4 million customers to the total.

In July 2019, the company agreed to pay approximately $650 million to settle various claims against it, amounting to $125 per affected consumer.