Nov. 6th

Mark E. Nemenman

Born: Nov. 6, 1936;

Minsk, Belarus

In 1964, Nemenman was one of the developers of the AKI language (short for "Engineer's Autocode" in Russian), a cross between an assembly language and higher-level languages like FORTRAN [Dec 00]. It became very popular in the Soviet Union until BASIC [May 1] rose to prominence.

Nemenman also led the development of system software for the Minsk-32, the most popular of the Minsk family of computers [Aug 23].

MESM Runs Nov. 6, 1950

MESM (a Russian abbreviation for "Small Electronic Calculating Machine") ran its first program on this day, and in 1951 became the first, fully operational, computer in the Soviet Union.

It used about 6,000 vacuum tubes, and could perform approximately 3,000 operations per minute. It was 8 to 10 meters long and about 2 meters tall. It had been developed by a 20-person team at the Kiev Institute of Electrotechnology, led by Sergey Alexeyevich Lebedev [Nov 2], starting late in 1948.

When Lebedev gave a presentation on the MESM to the Soviet Academy of Sciences in Moscow, he was criticized for using the term "logic" to describe the circuitry, on the grounds that "logic" was a characteristic of humans not machines.

The machine stayed in operation until 1957, and was then given to a Kiev cinema studio, where it became a prop in SF films.

TYPSET and RUNOFF

Nov. 6, 1964

Jerry Saltzer [Oct 9] finished his Project MAC [July 1] memo (MAC-M-193) describing TYPSET and RUNOFF. TYPSET was a document editor, and RUNOFF its output processor which supported pagination and headers, as well as text justification. The original purpose of RUNOFF was to format Saltzer's doctoral thesis proposal.

RUNOFF is often considered the first computer mark-up language, being based around "dot-commands", although Peter Samson's [Aug 16] TJ-2 was an earlier layout system, albeit functionally simpler. Probably the first program used to drive a phototyping machine was Michael Barnett's [March 24] TYPRINT.

RUNOFF was written in FAP (Fortran Assembler) and MAD (Michigan Algorithmic Decoder) for the MIT CTSS time-sharing system [May 3]. The name is alleged to have come from the phrase "I'll run off a copy."

RUNOFF would beget the runoff document formatter on Multics [Nov 30], which led to the roff and nroff tools on UNIX [Oct 15].

Jerry Chih-Yuan Yang

Born: Nov. 6, 1968;

Taipei, Taiwan

Yang and David Filo co-founded Yahoo! [March 2] in 1994 while they were graduate students at Stanford. Initially intended to act solely as a Web directory (called "Jerry's Guide to the World Wide Web"), it grew [April 12] into one of the most popular Web portals during the 1990's.

On [Aug 11] 2005, Yang pulled off what would later be recognized as one of the best strategic investments in tech history: acquiring a 40% stake

in fledgling Chinese e-commerce site Alibaba [April 4].

Yahoo! went through some turbulent times after Yang became CEO in 2007: there was an aggressive bid for the company from Microsoft [May 4], and a civil suit relating to the arrest of Chinese journalist Shi Tao [Sept 7]. In 2009, Yang was replaced by Carol Bartz, but remained on the board until 2012.



Jerry Yang (2007). Photo by Mitchell Aidelbaum. CC BY 2.0.

He says that he only knew one English word, "shoe", when he came to America, but became fluent in English within just three years.

Yang's first Web page contained his name in Chinese characters, his golf scores, and a list of his favorite Internet sites.

Microsoft Meets with IBM

Nov. 6, 1980

Previous: [Sept 22]; Next: [July 27]

Bill Gates [Oct 28], Steve Ballmer [March 24] and Bob O'Rear [Dec 7] met with IBM in Boca Raton to sign a contract that put Microsoft in charge of coordinating software development for the IBM PC [Aug 12].

When IBM CEO John Opel heard Microsoft had got the contract, he said "Oh, is that Mary Gates' boy's company?" since Opel and Gates' mother served together on the national board of the "United Way" charity.

IBM agreed to pay Microsoft \$430,000, including a mere \$45,000 for an OS, \$310,000 for various programming languages, and \$75,000 for "adaptions, testing and consultation."

IBM was expecting Microsoft to ask for more money, but instead they obtained the right to sell the new OS to other companies under the name MS-DOS [Aug 12]. It was this clause that changed the course of technology history by opening the door to Microsoft becoming the dominant software company of the PC era.

Microsoft understood that by controlling the OS, the underlying hardware became almost irrelevant. Also, IBM didn't foresee that companies would be able to successfully clone their hardware and its BIOS (see [July 10]).

WordNet Described

Nov. 6-7, 1985

WordNet is a lexical database for the English language, developed by psychologist and cognitive scientist George A. Miller and his team at Princeton. It has become a major resource for Web search engines and Information Retrieval projects.

WordNet groups English words into sets of synonyms and records the various semantic relations between them. The result is a hierarchy of concepts, ranging from very general ("entity", "state") to moderately abstract ("animal") to very specific ("Siamese cat").

3dfx Voodoo Nov. 6, 1995

3dfx Interactive released "Voodoo Graphics", the first addin graphics card for PCs capable of rendering relatively complex 3D scenes in real time, in hiresolution, and at high frame rates. It's proprietary Glide 3D graphics API was designed specifically around the hardware, and was blazingly fast. 3Dfx's dominance at the end of the 1990's meant that Glide was very popular for a while, but improvements in Microsoft's Direct3D [Sept 30] and OpenGL [Jan 00] eventually led to its demise.

3dfx was founded in 1994 by Ross Smith, Gary Tarolli and Scott Sellers, all former employees of Silicon Graphics [March 23].

Unfortunately, in late 2000, not long after Voodoo 4's launch, several of 3dfx's creditors decided to start bankruptcy proceedings against it, and the company opted to be bought by one of their rivals, NVidia [Feb 17]. The details of the deal were harsh, and on Dec. 15, 2000, 3dfx apologized to its customers in a final press release. NVidia then announced that they wouldn't provide technical support for 3dfx products, but had a limited-time offer under which 3dfx owners could trade in their hardware for NVidia cards of equal performance.

The disappearance of 3dfx left ATi [Oct 24] and NVidia the two main players in the graphics processors industry.

GÉANT Begins Nov. 6, 2000

GÉANT is Europe's gigabit research network, developed by a consortium of 38 national research networks, under the sponsorship of the European Commission.

It became fully operational in Dec. 2001, and subsequently evolved through many versions (GÉANT2, GN3, GN3plus, GN4-1 through 4-3).

By 2013 it supported multiple 100 Gbit/s links, with the core network supporting 500 Gbit/s.

It connects an estimated 50 million users in over 10,000 institutions. Over 1 Petabyte of data is transferred every day across the network.

Amazon Echo Released

Nov. 6, 2014

The Amazon [July 16] Echo is a 9.25 inch tall cylindrical 'smart' speaker with a microphone, which connects to Amazon's Alexa personal assistant service.



The first-generation Amazon Echo. Photo by Frmorrison. CC BY-SA 3.0.

Amazon began developing the Echo in 2010 at Lab126, previously home to its Kindle line [Nov 19]. The lab was founded in 2004 by Gregg Zehr, formerly the Vice President of Hardware Engineering at Palm [March 10].

Echo's main hardware competitor is Google Home [Nov 4], while Alexa's main software rival is Apple's Siri [Oct 4].

Concerns have been voiced about the Echo's access to private conversations (concerns its shares with Google Home and Siri). A user can disable voice recordings, but Amazon warns that doing so may degrade the user's experience when using voice search. In other words, do you want privacy or ease of use?

Company Name Hack

Nov. 6, 2020

Alex Hern reported in *The Guardian* newspaper that Companies House, which is in charge of registering businesses in the UK, had forced one to change its name after it realised it might pose a security threat.

The original name was

""><SCRIPT SRC=HTTPS://MJT.XSS.HT> LTD"

Any site which failed to properly handle the HTML would have loaded and executed a script from the XSS Hunter site, which helps developers find cross-site scripting errors. It would only have issued a harmless alert, but it highlights the dangers of poor HTML name processing.

The company is now known as "THAT COMPANY WHOSE NAME USED TO CONTAIN HTML SCRIPT TAGS LTD."

This wasn't the first time something like this had happened. In 2016, Sam Pizzey registered

"; DROP TABLE "COMPANIES";--LTD"

as a humorous callback to xkcd's [Oct 17] "Bobby Tables" joke (https://xkcd.com/327/).