May 12th

Nokia Established

May 12, 1865

Knut Fredrik Idestam built his first paper mill in Southern Finland in 1865, and a second in the nearby town of Nokia in 1868. Three years later Idestam renamed his company after that town.

Nokia (the company) gradually moved into electricity generation, cabling, and electronics. In the early 1970's, it entered the networking and radio industries, and started making radio equipment for Finland's defense forces.

In 1982, the company began operating the first fully-digital local telephone exchange in Europe, and released the world's first car phone. In 1991, the first GSM [Feb 16] call was made with a Nokia phone using the Nokia-built network of a Finnish operator.

On [Aug 15] 1996, the company released the Nokia 9000 Communicator, the first smartphone to become widely popular. By 1998, Nokia was the world leader in mobile phones, a position it enjoyed for another decade.

Things began to unravel in 2007 with the arrival of the iPhone [June 29] and various Android smartphones. In Feb. 2011, Nokia's new CEO Stephen Elop (a former Microsoft manager) forged a partnership with Microsoft, resulting in an ill-judged move to Windows Phone software [Oct 11], and consequential massive losses.

Fortunately, Microsoft was ready to help. On [April 25] 2014, it finalized its acquisition of Nokia for 5.4 billion Euros – quite a bargain since Nokia's stock value had dropped by 85% since Elop had become CEO. For his services, Elop received a 18.8 million Euro bonus.

Simplified Dvorak

May 12, 1936

August Dvorak and William Dealey (Dvorak's brother-in-law) were granted a patent for their Dvorak Simplified Keyboard (DSK).

Dvorak and Dealey had studied letter frequencies and the physiology of people's hands to design a keyboard that would alleviate the problems they believed were inherent in the QWERTY layout [June 23].

Although DSK failed to oust QWERTY, most major OSes allow a user to switch to a Dvorak layout. Most use the version known as ANSI X4.22-1983.

Although QWERTY and DSK are very different, the "A" and "M" keys appear in the same location in both. The "Z" key was also in the same place in the original patented keyboard, but the current Dvorak layout has shifted it over to the far right.

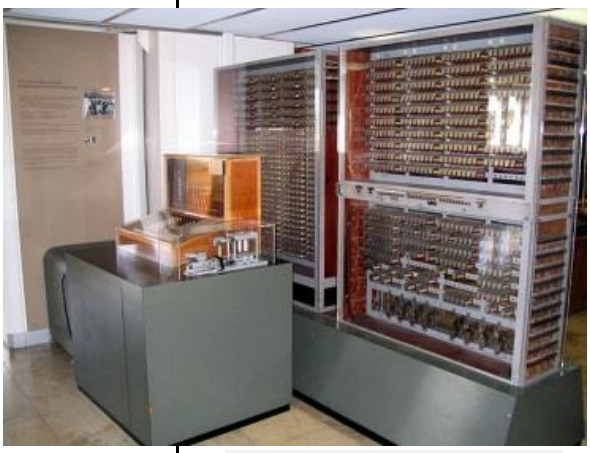
Dvorak was the captain of a Gato-class submarine in the US Navy during WWII.

Z3 Unveiled

May 12, 1941

Konrad Zuse [June 22] presented his Z3 computer to an audience of scientists at the Deutsche Versuchsanstalt für Luftfahrt ("German Lab for Aviation") in Berlin. They had partly funded the construction in the hope they could use the machine to speed up their aeronautical calculations, specifically the computation of flutter frequencies.

Zuse built the Z3 with the help of Helmut Shreyer [June 4], and based on his earlier Z1 and Z2 designs. The Z3 employed 2,600 relays, was 5 meters long, 2 meters high, and almost a meter deep. Zuse and Shreyer had wanted to employ vacuum tubes rather than relays, and had asked the government for funding for that change. It was denied since such gadgets were deemed "not war-important".



The Zuse Z3 replica. Photo by Venusianer. CC BY-SA 3.0.

The Z3 could perform three to four additions per second, and one multiplication every 3 to 5 seconds using floating point binary arithmetic. It read programs off rolls of punched movie film, so no rewiring was necessary to change between programs. The Z3 instruction set supported loops but not conditional jumps.

All of these features arguably makes the Z3 the first program-controlled electromechanical digital computer. Unfortunately, WWII meant that no one outside of Germany knew about it, and Zuse's designs had no influence on the future development of computing in the US or UK. In any case, the Z3 was destroyed in a bombing raid on Berlin on Dec. 21, 1943. However, Zuse's next machine, the Z4 [July 11], did manage to survive the war.

Zuse hired a mathematician, Arnold Fast, to program the Z3 (and later the Z4). Fast was available since he was blind, and so deemed 'useless for the war effort'. Fast is therefore the world's first professional programmer. Zuse also commented later that Fast's knowledge of braille perhaps

helped him understand binary coding more easily.

At the start of the 1960's, Zuse's company, Zuse KG, used the old Z3 designs to build a replica for the 1964 Interdata Industry Fair. Currently the machine is on display at the Deutsches Museum in Munich, along with Zuse's original Z4.

First Online Shopper

May 12, 1984

The world's first online home shopper was Mrs Jane Snowball, aged 72, of Gateshead, England. She used a television remote control to order groceries from her local Tesco supermarket.

Mrs Snowball didn't need a computer – her TV acted as a videotex terminal. Pressing the "phone" button on a remote control brought up a directory of retailers on the TV as a teletext page. She only needed to choose a retailer and then select the goods, which were packaged up and delivered promptly to her door.

Mrs Snowball was part of a local council initiative to help the elderly, called the Gateshead Shopping Experiment, led by Ross Davies from the University of Newcastle. The videotex system was developed by Michael Aldrich [Aug 22] and the Online Shopping Basket (later renamed the Online Shopping Trolley) was designed by Aldrich's colleague John Phelan.

Since this occasion, you could perhaps say that online shopping has "snowballed".

A much earlier commercial transaction, albeit illegal, was supposed to have occurred in 1972, when students from the AI Lab at Stanford sold a tiny amount of marijuana to students at MIT via an Arpanet account [July 29]. The first 'real' e-commerce transaction probably took place on [Aug 11] 1994.

UUNET

May 12 1987

In the early 1980's, access to the USENET [Jan 29] and e-mail with non-ARPANET sites was accomplished using UUCP (Unix to Unix Copy Protocol) over telephone lines. However, the rapid growth in the number of network users was putting a considerable strain on the (mostly academically-owned) UUCP hubs.

This prompted Richard L. Adams, Jr., a sysadmin at the Center for Seismic Studies in Northern Virginia, to start running his own hub. His UUNET Communications Services, which started on this day.

UUNET began as a non-profit, growing out of Adams' Seismo UUCP e-mail link that he ran at the center. However, within two years it had become a profitable commercial venture.

In the late 1980's, the National Science Foundation (NSF [July 16]) decided they'd wanted to be less involved in running the Internet. UUNET took advantage of this change of heart by forming a company called Alternet to provide Internet services. In Nov. 1989, Alternet's and STD's "The World" [Nov 00] became the first commercial services to offer Internet access to the general public.

On [Aug 2] 1991, UUNET, PSINet and CERFnet formed the Commercial Internet eXchange (CIX, pronounced "kicks"), an Internet connection point for commercial traffic.

By the mid-1990's, UUNET had become the fastest-growing ISP, easily outpacing its main competitors, MCI [Sept 23] and Sprint. At its peak, its Internet traffic doubled every few months.

Internet Archive

May 12, 1996

The Internet Archive is a San Francisco–based nonprofit digital library with the stated mission of "universal access to all knowledge." As of April 2021, its free collection includes over 30 million texts, 9 million movies and TV shows, 650,000 pieces of software, 13 million audio files, 3.8 million images, and 552 billion web pages. It's also a fervent advocate for a free and open Internet.

The Archive is located at 300 Funston Street in an old Christian Science church, adorned with Corinthian columns and urns. Inside the church's "Great Room", there stands a collection of over 100 ceramic figures representing Archive employees. Incidentally, the movie "House of Wax" was first filmed in 1953, and again in 2005.

(Definitely not creepy) ceramic Internet Archive employees sculpted by Nuala Creed. Photo by Jason Scott. CC BY 2.0

Brewster Kahle [Oct 22] began the archive when he saved its first Web page on this day, but the contents only became available to the public on Oct. 24 2001, when Kahle released the incredibly useful Wayback Machine search engine (https://archive.org/web/).

Other digital libraries of note include the Library of Congress's American Memory [Oct 13], Google Books [Oct 6], Project Gutenberg [Dec 1], the World Digital Library [April 21], and WikiSource [June 20].

Xbox 360

May 12, 2005

The Xbox 360 (the successor to the Xbox [Nov 15]) was unveiled on MTV by the actor Elijah Wood and the band, "The Killers". After a "Zero Hour Launch Party" on [Nov 20], the console went on sale just after midnight on Nov 22.

The 360's main competitors at the time were Nintendo's Wii [Nov 19] and Sony's PlayStation 3 [Nov 11], and although not the bestselling console of its generation, the 360 ended up shipping over 80 million units. An updated Xbox Live [Dec 20] for multiplayer gaming and media streaming, was a major selling point, and helped popularize the idea of the 'connected console'.

The 360 suffered from worse-than-usual manufacturing defects in its early years, including the infamous error message known as the "Red Ring of Death". (Some sources put the failure rate at high as 16%.) The 360 delivered the bad news by lighting up three of the four red quadrants of the ring that surrounded the power button; hence the name. The unfortunate owner had to ship the console back to Microsoft for repairs, which was a lot of work. Of course, multiple homegrown cures were invented, and even an entire book appeared on dealing with the problem.

The reason for the RRoD was never made official, but may have been due to the graphics chip designed in-house by Microsoft, or perhaps due to the type of lead-free solder used.

For more MS Windows' screens of death, see [July 27].

WannaCry

May 12, 2017

WannaCry was ransomware used in a large cyber-attack that began on this day. It infected more than 230,000 computers in 150 countries, and demanded ransom payments in bitcoin [Jan 3].

Victims included UK hospitals, FedEx Corp., a Honda factory in Japan, and traffic cameras in Australia.

The attack spread by multiple methods, including by phishing emails and the EternalBlue exploit which was originally developed by the National Security Agency (NSA [Oct 24]).

Microsoft released a patch to remove the vulnerability on March 14, two months before the attack, but, not surprisingly, many users hadn't applied the update.

The main reason WannaCry wasn't too damaging was the discovery of a "kill switch" in its code by British security researcher Marcus Hutchins. As a result of the publicity, he was arrested in Las Vegas on Aug. 2, 2017, due to his youthful involvement in some unconnected "black hat" activities.