

April 28th

Kurt Friedrich Gödel

Born: April 28, 1906;

Brno, Czech Republic
Died: Jan. 14, 1978

Gödel was one of the greatest logicians in the history of mathematics, best known in computing for his two incompleteness theorems [Nov 17], published in 1931 when he was just 25-years old. Also, his invention of Gödel numbering, helped Alonzo Church [June 14], Alan Turing [June 23], and Emil Post [Feb 11] develop (independently of each other) answers to the Entscheidungsproblem (Decision Problem).



Kurt Gödel (ca 1926).

Gödel's other work includes a proof for the existence of God [Aug 29], and the discovery of a flaw in the Constitution, which would allow the US to be turned into a dictatorship [Dec 5]. As a child, Gödel was called Herr Warum ("Mr. Why") by his family because of his curiosity.

A quote: "The more I think about language, the more it amazes me that people ever understand each other at all."

First US Software Patent

April 28, 1968

The first US patent related to software, a "Sorting System", was filed by Martin A. Goetz [April 22] on April 8 1965, and granted on this day as US 3380029. However, the first ever software patent was probably awarded on [Aug 17] 1966 in the UK.

At the time, Goetz worked at Applied Data Research (ADR) as the product manager for Autoflow, a flowchart drawing tool which is generally cited as the first to be sold as a standalone product, and which Goetz has also patented. However, IBM kept including Autoflow in its OS distributions, essentially ignoring ADR's patent protection. In April 1969, ADR and Goetz sued IBM, and the case was eventually settled out of court for \$2 million in cash. This made it clear that software was protected by intellectual property laws, which made its commercial development much more viable economically.

The Autoflow debacle was one reason behind IBM's decision to unbundle software from its mainframes, which it announced on [June 30] 1969. This in turn helped boost the growth of third-party software tools during the 1970s.

In 2007, Computerworld magazine called Goetz an "Unsung Innovator" in the computer industry, and named him the "Father of Third-Party Software".

First UNIX Port

April 28, 1977

The first port of UNIX [Oct 15] to a non-PDP machine became operational on this day. Richard Miller and Juris Reinfelds at the University of Wollongong in Australia successfully reconfigured a copy of the 6th

Edition [Jan 19] that ran on a PDP-11 [Jan 5] at the University of New South Wales to execute standalone on an Interdata 7/32.

Bell Labs completed the second port later that year, to another Interdata machine, the 8/32. It was chosen because of its very different architecture from the PDP family, making it a good test of UNIX's portability.

The 7/32 and 8/32 were 32-bit minicomputers, similar to the IBM 370 [June 30]. The 8/32 was the more powerful machine, with support for user-programmable microcode.

The portability issues that came to light led to changes which were released in 1979 as the 7th Edition, which is often considered to be the "best" UNIX version.

The 8th edition appeared six years later, the 9th in 1986, and the 10th, the final release, in 1989, although it wasn't distributed widely outside of AT&T.

Exidy Sorcerer

April 28-30, 1978

The Exidy Sorcerer made its debut at the PERCOMP 78 show in Long Beach, California.

It was the brainchild of Paul Terrell, who had recently sold his share of the personal computer store, the Byte Shop [Dec 8]. His idea was to create a ready-to-use, simple computer with reasonable performance that only required the additional purchase of a cheap monitor. Terrell teamed up with Exidy, a leading manufacturer of video games, who wanted to break into the home computer market.

The Sorcerer was powered by a Zilog Z80 [March 9] with 8-48 K of RAM, giving it performance parity with the TRS-80 [Aug 3]. Software was loaded from "ROM-PAC" cartridges (a 16K ROM encased in an 8-track tape cases).

Due to a lack of marketing and strong competition, the machine remained relatively unknown in the US. Sales were better in Europe, and very strong in Australia due to the support of "Dick Smith Electronics" (an Australian "Radio Shack"). In fact, if you were a computer enthusiast in Australia in the late 1970s, the Sorcerer was the only computer you could buy over the counter.

The World Wide Cemeteries

April 28, 1995

"The World Wide Cemetery" (<https://cemetery.org/>) is the oldest online memorial 'graveyard', which was set up by Mike Kibbee (1964 - 1997) on this day, and is now home to its founder. The site hosts short profiles of the deceased, including photos, videos and comments left by mourners.

In Hong Kong, a shortage of burial space prompted the creation in 1997 of <http://www.memorial.gov.hk>, the world's first government-run virtual cemetery. The site was created by the Hong Kong Food and Environmental Hygiene Department, which oversees public cemeteries and crematoriums, as a way to encourage cremation and "promote sustainable forms of mourning and burial." The site also offers free apps for Android and the iPhone.

iTunes Store Launched

April 28, 2003

Apple launched the iTunes Music Store, selling music for 99¢ a song, making it the only legal digital catalog of music from all five major US record labels.

Of course, it wasn't the first service to sell digital music (see [Oct 00]), but it was the first to gain widespread popularity. The

service sold over one million songs in its first week. In 2008 it passed Wal-Mart as the no. 1 music retailer in the US. By May 28, 2014, the store had sold 35 billion songs worldwide.

In 2010, Apple began buying rural land for a new \$1 billion data center in Maiden, North Carolina. Dubbed 'Project Dolphin' it was believed to be for the iTunes store. However, Donnie and Kathy Fulbright refused to sell their one-acre plot of land which they had purchased for \$6,000 some 34 years before. Apple asked them to name a price and they sold for \$1.7 million. The pair have now built a brand new 4,200 square-foot house on 49 acres, boasting a jacuzzi and pond.

In 2016 the iTunes store reported that music streaming services had overtaken digital downloads in terms of sales. By 2017, streaming accounted for 62% of the US music business, with digital download sales continuing to fall. However, physical sales were almost flat.

One unexpected consequence of the launch was a third lawsuit between Apple and Apple Corps, "The Beatles" record label [Oct 8].

Kickstarter Started

April 28, 2009; 4:27pm EST

Perry Chen, Yancey Strickler, and Charles Adler launched Kickstarter: its mission to "help bring creative projects to life". It soon became the top site for crowdfunding. The idea is that project creators set a minimum amount of money they need to raise by a given deadline. If that goal isn't reached, no funds are collected. People who back a project are offered tangible rewards (e.g. cheap versions of the kickstarter product) or experiences in exchange for their pledges.

As of Dec. 2019, Kickstarter had received more than \$4.6 billion in pledges from 17.2 million

backers, to fund 445,000 projects.



A Pebble watch. Pebble Technology. CC BY-SA 1.0.

The most successful Kickstarter project by total funds pledged was the Pebble Time smartwatch [April 11] which received \$20 million from 78,471 backers. Indeed, Pebble racked up more than \$43 million in funding for three of its projects before it filed for insolvency at the end of 2016. Its assets were ultimately acquired by Fitbit.

The Oculus Rift [March 28] (a virtual reality headset) began as a Kickstarter project, which raised \$2.5 million from 9,522 backers. The company was later bought by Facebook.

Other, more strange, but still successful, projects include the Ostrich pillow, the IllumiBowl toilet nightlight, Combat kitchenware, edible cups, and the jokey "make a potato salad" campaign.

Some critics of the site have complained about the rise of paid advertising, investor-backed campaigns, and crowdfunding agencies, which have tended to crowd out the intended participants – small inventors and creators.

Also, several crowdfunding campaigns have been accused of creating fake contributors to fool people into thinking the campaigns were successful, and to defraud funds.
