

Oct. 23rd

Allen William Mark (Doc) Coombs

Born: Oct. 23, 1911;

Bristol, UK

Died: Jan. 30, 1995

Coombs was the main designer of the Colossus Mark II's [June 1] used at Bletchley Park for codebreaking during WWII, and took over leadership of the project when Tommy Flowers's [Dec 22] moved on.

After the war, he collaborated with Alan Turing [June 23] on the Ace [Feb 19], and led the work on Mosaic, a computer unique in its use of a large bath of mercury for memory storage.

In later years, he developed an optical character recognition (OCR) system for the UK postal service. It had to handle any possible font, ink, or paper quality supplied by customers.

Randolph Frederick Pausch

Born: Oct. 23, 1960;

Baltimore, Maryland

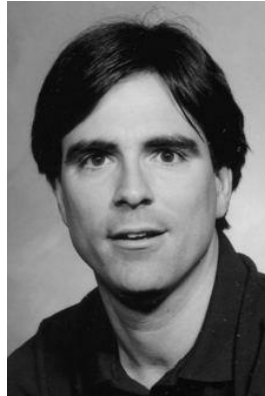
Died: July 25, 2008

Pausch and Don Marinelli founded CMU's Entertainment Technology Center, and its "Building Virtual Worlds" course. He also started the project that created Alice, an educational programming language which offers a drag and drop environment for creating 3D animations.

However, he's probably best remembered for his talk "The Last Lecture: Really Achieving Your Childhood Dreams" given on Sept. 18, 2007, in response to hearing that he had terminal pancreatic cancer.

A devoted Star Trek [Sept 8] fan, Pausch was invited to appear in the 2009 movie reboot, and

spoke a line of dialogue ("Captain, we have visual.") He donated the paycheck to charity.



Randy Pausch.

VIEW Viewed Oct. 23-24, 1986

A paper on "The Virtual Interface Environment Workstation" (VIEW) was presented at the 1986 ACM Workshop on Interactive 3D Graphics. The system had been developed in the mid-1980's at NASA's Ames Research Center as part of a virtual reality (VR) project started by Michael McGreevy and Scott S. Fisher.

The first prototype was built from a motorcycle helmet and Watchman LCD displays, but later incorporated wide-angle stereoscopic optics, a Polhemus magnetic head-position tracker, and the first use of a dataglove [Aug 29] in VR to let the user grasp virtual objects, or employ hand gestures.

VIEW proved to be very influential, establishing a standard suite of VR technologies, but it was far from being the first VR project; that was probably Morton Heilig's [Dec 22] Telesphere mask (1958) and Sensorama (1961). Indeed, Scott Fisher had a Sensorama poster on a wall of his office, and cited that work as an influence. Fisher also worked on the earlier "Aspen Movie Map" project [July 14].

Rhythm Nation

Oct. 23, 1989

"Rhythm Nation" is a song by Janet Jackson [June 25], released as the second single from her fourth studio album, "Rhythm Nation 1814".

The music video for "Rhythm Nation" was directed by Dominic Sena and choreographed by Jackson and Anthony Thomas. It received multiple accolades, including MTV Video Music Awards for "Best Choreography" and "Best Dance Video."

However, a major computer manufacturer also discovered that playing the video on Windows XP [Oct 25] would crash certain models of laptops. In addition, playing the video on one laptop might cause a nearby machine to crash, even though it wasn't playing the video.

It turns out that the song contained one of the natural resonant frequencies for the 5,400 RPM hard drive model that some manufacturers used at the time. The sound disrupted the hard drive's operation long enough for it to cause the OS to crash.

The manufacturer worked around the problem by adding a custom filter in the audio pipeline that detected and removed the offending frequencies during audio playback.

The Commercial Internet Begins

Oct. 23, 1992

It could be argued that the commercial Internet began on this day when the Scientific and Advanced-Technology Act was signed. It let NSFNet (National Science Foundation Network; [July 16]) officially accept commercial connections, and essentially freed the Internet from government control. Three years later (in April 1995), the NSF relaxed all the regulations

on the usage of its institutional networks.

However, even before the act, there had been some (semi-official) commercial links to the network, namely through MCI Mail [Sept 23].

The act's official sponsor was Barbara Mikulski (popularly known as "Senator Barb"), who is the longest-serving woman in the US Congress (1987 - 2017).

Network Wiretap

Oct. 23, 1995

The first court-ordered network wiretap was put in place to catch a hacker at Harvard University's Faculty of Arts and Sciences. He had used an account to obtain passwords to various other systems, including the Department of Defense, NASA's Jet Propulsion Lab, and the Ames Research Center. A court's approval was required because at that time Harvard's regulations didn't legally caution users that their communications might be monitored.

A 21-year-old student from Argentina was later arrested and extradited to the US. The hacks, via a dial-up modem, were traced back to his parents' Buenos Aires apartment.

Attorney General Janet Reno said at the time "If we aren't vigilant, cybercrime will turn the internet into the Wild West of the 21st Century."

UFOSeek

Oct. 23, 1998

Ignatius Graffeo launched UFOseek.com, a search engine and directory dedicated to UFOs, the paranormal, and other unexplainable subjects. It offers a one-stop source for the latest UFO conspiracies, photographs, sightings, theories, Alien abductions, and Area 51, among other valued topics.

Best Internet OS Ever

Oct. 23, 1999

Mac OS 9 (codenamed Gershwin and Sonata) became the ninth and final major release of Apple's original OS [May 7]. It was promoted as "The Best Internet Operating System Ever" due to its Sherlock Internet search capabilities (named after Sherlock Holmes [June 16] of course), and integration with the online iTools service.

iTools included a free greeting card service called iCards, reviews of popular web sites called iReviews, online data storage named iDisk, and a free web page publishing service called HomePage. This naturally raises the question: why wasn't it called iHome, iPage, or even iHomePage?

AdWords

Oct. 23, 2000

Advertising had first appeared as part of Google's search engine back in January, based around text ads sold at a rate based on CPM (Cost per thousand; M being the Roman numeral for 1000), and it flopped.

Google's response was AdWords, designed by Salar Kamangar, which was released from beta on this day with just 350 advertisers currently signed up. However, by 2001, Google's ad revenue had hit \$85 million, but this was still easily dwarfed by rival Overture, which earned \$288 million using a Pay-per-click (PPC) [Feb 18] model. (Overture was the renamed GoTo.com search engine developed by PPC's inventor Bill Gross.)

In Feb. 2002, Google revamped AdWords, adopting PPC with the addition of a measure of relevance based on clickthrough rate. Several authors have placed this idea next to PageRank [Aug 29] in terms of its importance to Google's rise.

AdSense [June 18], Google's next big push into advertising, debuted in 2003.

First iPod

Oct. 23, 2001

Apple introduced the iPod music player with the slogan "1,000 songs in your pocket".

It was built around a mechanical scroll wheel for navigation, and a 5 GB 1.8" Toshiba hard drive, which made the iPod significantly smaller than other MP3 players. Also, its innovative Firewire port allowed simultaneous charging and high-speed music synchronization. Later generations included the Mini, Nano [Sept 7], Shuffle, and finally the Touch.



First generation iPod. Photo by HereToHelp. CC BY 2.5.

The iPod's design was inspired by the 1958 Braun T3 transistor radio by Dieter Rams, while the wheel-based user interface was borrowed from Bang & Olufsen's BeoCom 6000 telephone.

The iPod name came from Vinnie Chieco, a freelance copywriter, apparently based on the phrase "Open the pod bay doors, HAL" from the movie "2001: A Space Odyssey" [April 2].

The iPod's price and Mac-only compatibility meant sales were slow at first, but that changed with the introduction of the iTunes Music Store on [April 28] 2003. In April 2007, Apple estimated that one iPod had been sold every 1.7 seconds

since its release. Indeed, the iPod became so popular that London's police blamed it for a 26% rise in street robberies in 2005 due to the device's portability.

One (sadly untrue) story about the iPod's development had Steve Jobs dropping a prototype into a bucket of water, seeing bubbles come out, and saying that it proved the device could be made smaller.

Virtual Theft

Oct. 23, 2008

In the Netherlands, a judge sentenced two teenage boys to 200 and 160 hours of community service as punishment for stealing virtual goods (an amulet and mask) during a fight in the online game RuneScape [Jan 4]. It was the first time that the theft of virtual property had been deemed illegal.

For more virtual shenanigans, see the land dispute between Marc Bragg and Linden Labs on [May 1] 2006, and yesterday's murder [Oct 22].

Quantum Supremacy

Oct. 23, 2019

Quantum supremacy is the goal of demonstrating that a quantum computer [May 2] can solve a problem that no classical computer can solve in any feasible amount of time. A typical problem is that of integer factorization using an algorithm devised by Peter Shor [Dec 19], which theoretical runs in polynomial time on quantum hardware as opposed to exponential time on classical machines.

On this day, Google scientists announced that they had achieved quantum supremacy when a computer with 53 qubits (quantum bits) completed a calculation in a little over three minutes that, Google claimed,

would have taken the world's biggest supercomputer 10,000 years, or 1.5 billion times as long.

Many companies (and countries) are racing to build reliable quantum computers, so it was unsurprising that one of Google's competitors, IBM, responded by suggesting that some of the claims were excessive. It suggested that a suitably tuned supercomputer, such as their IBM Summit [June 24], would take 2.5 days to produce an answer.
