Nov. 14th

Daniel J. Sandin

Born: Nov. 14, 1942;

Rockford, Illinois

In the early 1970's, Sandin designed the Sandin Image Processor, an analog computer for the real-time manipulation of video, partly inspired by the modular design of the Moog synthesizer [May 23].

In September 1973, he and Thomas A. DeFanti [Sept 18] founded the influential Electronic Visualization Laboratory (EVL) at the University of Illinois, although it was originally called the "Circle Graphics Habitat".

In 1977, Sandin, DeFanti and Rich Sayre designed the Sayre Glove, the first data glove [Aug 29]. It employed flexible tubes with light sources at one end and photocells at the other. As the user bent their fingers, the amount of light that hit the photocells varied, providing a measure of the movement.

Sandin also worked on a type of digital photography called PHSCologrames (the capital letters stand for Photography, Holography, Sculpture, and Computer graphics). It uses a form of autostereoscopy, based around black line grids and back-projected light, to create an effect very similar to a hologram. This led to Carolina Cruz-Neira, Sandin, and DeFanti creating the first CAVE in 1992, which became a standard for rear projection-based Virtual Reality (VR) systems.

The very first VR devices were probably Morton Heilig's [Dec 22] Telesphere mask (1958) and Sensorama (1961).

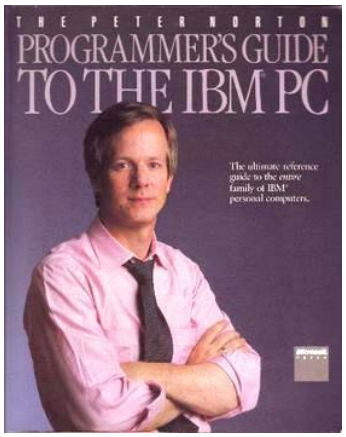
Peter Norton

Born: Nov. 14, 1943;

Aberdeen, Washington

In the early 1980's, Norton released a collection of useful tools that could recover erased data off MS-DOS disks and fix corrupted hard drives. They would eventually become the highly successful Norton Utilities suite.

His book "The Peter Norton Programmer's Guide to the IBM PC" was a popular guide to BIOS and MS-DOS system calls, which was nicknamed "the pink shirt book", after Norton's business-casual attire in the cover photo. Norton's iconic crossed-arm pose was later assigned a US trademark, and was even immortalized as a computer icon.



First edition of the Pose. (c) Peter Norton.

Norton sold his company to Symantec [Nov 7] in 1990, but the Norton brand name lived on in such Symantec products as Norton AntiVirus, Norton 360, Norton GoBack, and Norton Ghost. Norton's image was energetically employed on the packaging of all the Norton-branded products where he started to favor a white or blue shirt, and sport glasses. Later-era packaging (after 2001) was a bit disappointing, preferring to utilize photos of confident-looking users.

Norton possesses one of the largest modern contemporary art collections in the US.

Shafrira Goldwasser

Born: Nov. 14, 1958;

New York City

Goldwasser works in the areas of complexity theory, cryptography, and number theory. In 1982, she and Silvio Micali [Oct 13] invented probabilistic encryption, which introduced randomized methods into encryption. Their landmark paper also debuted the "simulation paradigm," which has since become a popular method for proving cryptography security.

In 1985 she was the co-inventor with Charles Rackoff and Micali. of zero-knowledge proofs. For example, this approach addresses the question of how to prove that someone has a valid credit card without seeing the card's number.

Perhaps the most famous zero-knowledge proof is the "Ali Baba's Cave" problem, proposed in the paper "How to Explain Zero-Knowledge Protocols to Your Children" by Jean-Jacques Quisquater and others.

Zero-knowledge proofs also break with cryptographical convention by utilizing Peggy (the prover of the statement) and Victor (the verifier of the statement) rather than the more usual Alice and Bob [Feb 00].

Goldwasser has won two Gödel Prizes for her papers on theoretical computer science (1993, 2001), while her husband, Nir Shavit, has won one (2004), making their household total a record unlikely to be broken.

Mouse was a Bug

Nov. 14, 1963

Douglas Engelbart [Jan 30] invented the computer mouse in the early 1960's. On this day, he recorded his thoughts on the matter in his notebook, referring to the device as a "bug," which could have a "drop point and 2

orthogonal wheels." The bug would be "easier" and "more natural" to use because, unlike a stylus, it wouldn't move when released.

In 1964, Engelbart's lead engineer, Bill English [Jan 27], built a prototype by carving a wooden block and adding perpendicular wheels and a button on top. Only at this stage did Engelbart call it a "mouse" because its cord looked like a tail.

Engelbart applied for a patent in 1967, by which time mice were in use throughout his lab, but the first public appearance of a mouse was during Engelbart 's "Mother of all Demos" presentation on [Dec 9] 1968. The patent was granted on Nov. 17, 1970 (US 3541541).

Q7: A Movie/TV Darling

Nov. 14, 1964

The SAGE [June 26] network , consisting of over twenty mainframes, managed NORAD's [Aug 1] response to a possible Soviet air attack.

Part of a Q7 at the Computer History Museum. Photo by Steve Jurvetson. CC BY 2.0

Actually, the word "mainframe" isn't really sufficient, since SAGE utilized the largest computer ever built, the IBM AN/FSQ-7 (Q7 for short, or "Army-Navy / Fixed Special eQuipment" in full).

Each Q7 occupied an entire floor, covering approximately 22,000 square feet not including supporting equipment. Each one weighed around 250 tons, used 50,000 vacuum tubes, and up to 3 megawatts of electricity. The first prototype was completed in Oct. 1955.

Each SAGE center housed a pair of Q7s to provide fault tolerance to the system. One machine was always active, the other on standby. IBM had about 60 employees at each site for round-the-clock maintenance. There were usually several hundred tube failures per day, so the engineers moved replacements around in shopping carts.

Each Q7 could handle more than 100 users at a time, and perform about 75,000 instructions per second.

Originally MIT had hoped SAGE would utilize its Whirlwind [April 20] machine, but it wasn't reliable or fast enough. However, the Q7 was based on the larger and faster Whirlwind II design. As a result, MIT's Lincoln Lab worked closely with IBM during the Q7's development.

IBM's work on SAGE had a great deal to do with its later dominance of the mainframe market. The IBM 7090 [Nov 30] was essentially a solid-state version of the Q7/8. Also, IBM's SABRE airline reservation system [Nov 5] used Q7 technology.

The Q7 became a star in later life, appearing in numerous films and TV series. Bits and pieces turn up in "The Time Tunnel", "Lost In Space", "Get Smart", "Fantastic Voyage", "In Like Flint", "The Towering Inferno", "Logan's Run", "WarGames" [June 3] and "Independence Day" [July 2], among many others. Woody Allen's "Sleeper", set in 2173, shows the Q7 helping Teamsters repair robots. The Q7's first movie appearance was in "Santa Claus Conquers the Martians", which was released on this day.

Another movie/TV favorite was the Burroughs B205 [Jan 12], which starred in many of the same shows.

The Puma RS Computer Shoe

Nov. 14, 1986

The Puma RS (Running System) computer shoe was first demoed at the Fall COMDEX trade show.

The right-hand running shoe had a chip built into the heel that automatically recorded the time, distance, and calories expended by its wearer, and could pass the results to an Apple IIe [April 24] or Commodore 64 [Jan 7] via a 16-pin cable.

It wasn't a hit, but fitness wearables has finally caught up (e.g. see [April 11]), and so the company decided to re-release the RS at the end of 2018. One change is that now the cable is only used to charge the equipment. For data transfer, it uses Bluetooth to link to an Android [Nov 5] or iOS smartphone [April 9]. The shoe now also registers the number of steps taken, and can store up to 30 days of data.

To fit in with the retro vibe, the phone app included an 8-bit game, and only 86 pairs were released (as in the year the shoe debuted).

"Above the Law," at COMDEX

Nov. 14-18, 1988

During the Fall COMDEX trade show in Las Vegas, a film crew recorded footage for the movie "Above the Law" starring Steven Seagal (in his first role). The crew carried press credentials and pretended to be from a news show.

Due to scheduling conflicts, the movie was unable to film at the Consumer Electronics Show (CES) in Chicago, where the story was actually set.

Virtual Boy Announced

Nov. 14, 1994

The Virtual Boy was Nintendo's first 32-bit device and the first portable game system to have stereoscopic 3D graphics.

It was a major commercial failure, due to its high price, the monochrome LED-based display, unimpressive 3D effects, and health concerns – the array of LEDs became notorious for causing eyestrain.

In fact, the system was packaged with a warning that it could be dangerous for children under the age of seven. To give your eyes a rest, most games automatically paused every 15 to 30 minutes to force the player to take a break.

A Virtual Boy game console. Photo by Evan-Amos. CC BY-SA 3.0.

The original plan was to also include head-tracking technology in the device so a user could wear it on their head. Fortunately perhaps, Japanese safety regulations forced Nintendo to place it on a stand instead.

Despite the Virtual Boy's flop at the time, it is has since become a valuable collector's item.

Dial-a-Coke

Nov. 14, 1997

The Finnish branch of Coca-Cola introduced the 'Dial-a-Coke' concept, in partnership with telecom provider Sonera. Consumers dialed a telephone number posted on the front of a vending machine and a cola dropped out. A charge for the drink would appear on the user's next monthly bank statement.

The first trials of 'Dial-a-Coke' took place in the summer of 1997 at Helsinki International Airport, and later moved to Helsinki University of Technology. After fifteen days of testing, over 30% of the vending machine's sales came from mobile phones. This means that mobile commerce probably began with a coke.

F00F Patch

Nov. 14, 1997

Intel released a software patch for the "f00f" (or "F0") bug, a design flaw in the majority of Intel Pentium [March 22], Pentium MMX, and Pentium OverDrive processors which made the hexadecimal instruction"F0 0F C7 C8" cause the processor to hang.

Intel's catchy name for the fix was the "Invalid Operand with Locked Compare Exchange 8Byte (CMPXCHG8B) Instruction Erratum"; the company also argued that it was very unlikely to occur in real code since it was an invalid instruction.

For more Intel bugs, see [Oct 30] and [Jan 3].

The Lumber Cartel

Nov. 14, 1997

"The Lumber Cartel" was a conspiracy theory popularized on USENET [Jan 29] which claimed that anti-spammers were secretly paid agents of the lumber companies.

On this day, a participant on news.admin.net-abuse.email posted an essay arguing for the theory. The gist was that since sending spam did not use paper, then it would be the lumber companies primarily who would want to stop the habit before it adversely affected their income from paper-based bulk mailing.

Many participants in the newsgroup labeled themselves as members of the cartel in their signatures although followed by the acronym "TinLC" (There is no Lumber Cartel). This is reminiscent of the "There Is No Cabal" catchphrase [March 26].

GlucoBoy Released

Nov. 14, 2006

Paul Wessell's company "Guidance Interactive Healthcare" released GlucoBoy, a product motivated by his son's diabetes and how much he liked to play console games. The result was that GlucoBoy combined a portable glucometer with a Nintendo "Game Boy Advance' [March 23] videogame cartridge.

To play a game, a child would first need to prick their finger to provide the device with a fresh blood sample, so a glucose reading could be made. As added incentives, frequent glucose readings would cause more games to be unlocked, and extra points to be awarded within the games.

GlucoBoy was released on this day to coincide with "World Diabetes Day".

Zune

Nov. 14, 2006

Zune was a line of portable media players and services which replaced Microsoft's MSN [Aug 24] music service on this day, just two years after its release.

Microsoft signed up 200 "Zune-masters" to advertise the device across American college campuses, and to run Zune-related events. The Zune-master welcome kit included a Zune player, ten Zune T-shirts, a bag, a cap, and Zune posters.

Sadly, the Zune failed to grab significant market share away from the Apple iPod [Oct 23], with the consensus being that it was a decent bit of gear but released too long after the iPod.

The same thing happened again in 2009 with the Zune HD, which debuted long after the iPod Touch (2007) and the iPhone [June 29].

On Oct. 3, 2011, Microsoft announced Zune's termination, suggesting that users transition to the exciting Windows Phone [Oct 11]. This was actually a false call, and the Zune staggered on until its real demise in June 2012. By then the suggested alternative was Xbox [Nov 15] Music. By killing it before the year's end, Microsoft also avoided another Zune 2K day [Dec 31].

Isis

Nov. 14, 2013

In Nov. 2010, AT&T, T-Mobile, and Verizon announced a joint venture known as Isis, to develop a near-field communications-based mobile payments platform. It launched nationwide on this day.

Just a year later, the service was renamed "Softcard", as "Isis" had gained some rather negative connotations due to its use by the terrorist organization, the Islamic State of Iraq and Syria (ISIS).

"We have no interest in sharing a name with a group whose name has become synonymous with violence and our hearts go out to those who are suffering," said Isis CEO Michael Abbott.

Stories that the new name was originally going to be "al-Qaeda" are untrue.

On Feb. 23, 2015, Google announced that it was acquiring Softcard's assets to integrate them into its own service, Google Wallet. Softcard ceased to function on March 31, 2015.
