Nov. 1st

Rajko Tomović

Born: Nov. 1, 1919;

Baja, Hungary
Died: May 30, 2001

In 1963, Tomović and Miodrag Rakić, both at the University of Belgrade, developed one of the earliest computer-aided artificial limbs – a hand with five fingers and a sense of touch. It's now on display at the Museum of Robotics in Boston.

Tomović research group went on to create the first external skeleton in 1972, designed to combat walking disability.

In the early 1980s, he led a project for the Veterans Administration Center in NYC that built an externally controlled powered leg prosthesis, which went on to become a successful commercial product.

Mitchell (Mitch) David Kapor

Born: Nov. 1, 1950;

Brooklyn, New York

Kapor supported the development of VisiCalc [Oct 19] at VisiCorp, and later founded Lotus with Jonathan Sachs.

As Kapor prepared to leave VisiCorp, wise executives pressed for a clause in his severance package forbidding him from working on another "integrated spreadsheet", but VisiCorp president Terry Opdendyk couldn't be bothered, calling Kapor a "spaghetti programmer". Lotus would go on to release Lotus 1-2-3 [Jan 26], which had cut VisiCalc sales in half by the end of 1983. However, Lotus itself fell prey to a more ruthless competitor, with the rise of Microsoft Excel [May 2].

Kapor came up with the Lotus name from 'The Lotus Position' or 'Padmasana' in Transcendental Meditation. Before VisiCorp, Kapor had worked as a disc jockey, a Transcendental Meditation teacher, and a mental ward counselor.

Mitch Kapor (2005).

Kapor and John Perry Barlow [Oct 3] founded the Electronic Frontier Foundation (EFF [July 6]), and he also became the first chair of the Mozilla Foundation [Jan 23].

In addition, he was a successful early investor in the commercial Internet with UUNET [May 12], streaming media with RealNetworks [Sept 5], and virtual reality with Linden Labs [June 23].

A quote: "Getting information off the Internet is like taking a drink from a fire hydrant."

ENIAC Weather Forecasting

Nov. 1, 1950

Jule Charney, Agnar Fjörtoff, and John von Neumann [Dec 28] published "Numerical Integration of the Barotropic Vorticity Equation," the first paper on weather forecasting by computer (they utilized the ENIAC [Feb 15]).

The forecasts covered North America with a two-dimensional grid consisting of 270 points, each about 700 km apart. The code employed finite difference methods to numerically solve Lewis Fry Richardson's differential equations [May 20], with a time step of three hours.

About 100,000 punch cards were needed for the program, and 1 million multiplications and divisions were performed to produce four 24-hour forecasts, each one taking 24 hours of processing. The overall task was managed by Klára Dán von Neumann [Aug 18].

The resulting predictions, while far from perfect, were a promising beginning. For more recent work on weather forecasting, see [July 19].

Timothy Donald Cook

Born: Nov. 1, 1960;

Mobile, Alabama

Cook became the CEO of Apple on Aug. 24, 2011, succeeding Steve Jobs [Feb 24]. Known for his hard work, he regularly begins sending emails at 4:30 a.m. and often holds Sunday-night staff meetings by telephone to prepare for the next week. Cook has said: "You kind of want to manage it like you're in the dairy business. If it gets past its freshness date, you have a problem".

In 2009, Cook offered a portion of his liver to the ailing Jobs, since both share a rare blood type. Jobs responded, "I'll never let you do that. I'll never do that."

On Oct. 30, 2014, Cook publicly came out as gay, becoming the first openly homosexual CEO in the Fortune 500 list.

In 2016, some analysts rather nastily compared Cook to Steve Ballmer [March 24], claiming that innovation at Apple had declined since he replaced Jobs, similar to Ballmer's effect on Microsoft after becoming its CEO in Jan. 2000.

Six-digit Dates Required

Nov. 1, 1968

The National Bureau of Standards in the US Department of Commerce issued Federal Information Processing Standards Publication 4 (FIPS PUB 4). It specified the use of six-digit dates in all communications among federal agencies, specifically the format YYMMDD, starting from Jan 1, 1970. There was little thought of what might happen in the year 2000 (see [July 20], [Dec 13], and of course [Dec 31]).

Seagate

Nov. 1, 1978

The hard-disk company Seagate Technology was incorporated by Al Shugart [Sept 27] as Shugart Technology. He knew the name would eventually incur the wrath of Xerox's subsidiary Shugart Associates (also founded by Shugart), but he reckoned that brand recognition was more important. In fact, the lawsuit threat only came in July 1980, and Shugart went for the Seagate name based on the S-G-T letters in his last name. Some of the company's executives didn't like it because it rhymed with "Watergate', but Shugart wasn't concerned.

The company had come into being after Finis Conner approached Shugart with the idea of starting a new business to develop 5.25-inch hard disk drives. Their first product, the 5MB ST-506 [May 20], was released in 1980, and was cunningly designed to fit into the same space as Shugart's earlier 5.25-inch "mini-floppy" drive [Aug. 27]. The 20 MB version, the ST-225, and the 30 MB version, the ST-238, became very popular add-ons for the IBM XT [March 8], AT [Aug 14] and compatibles of the mid-1980's.

On April 22, 2008, Seagate announced that it had shipped one billion hard drives since its founding, becoming the first manufacturer to reach that milestone. All told, the drives had a total capacity of roughly 79 million terabytes.

PCjr

Nov. 1, 1983

IBM announced the PCjr (PC junior; model number 4860; codenamed Peanut), and shipped it in late Jan. 1984. There was enormous anticipation for what would be IBM's first attempt to enter the home computer market. The press called it "Peanut Panic" or "The Great Peanut Roast".

PCjr with its original Chiclet keyboard.

However, the PCjr's wireless Chiclet keyboard proved to be extremely unpopular, combining both cheapness and difficulty to use. One reviewer compared typing on it to be like "massaging fruit cake".

Another drawback was that the PCjr's various port used proprietary connectors that couldn't be found on other computers, and didn't even match those on the IBM PC [Aug 12].

It was also incompatible on the software side, being unable to run around 60% of existing PC applications including WordStar [Sept 00], Lotus 1-2-3 [Jan 26] and Microsoft Flight Simulator [Nov 00]. The last two were often used to judge if a machine could be called "IBM compatible".

The PCjr could be expanded, but via an unwieldy "sidecar" plug-in mechanism. A fully equipped system could easily utilize three or more sidecar modules which added significant width to the unit.

The final nail in the coffin was the PCjr 's price – a lot more than its competitors, the Commodore 64 [Jan 7] and the Apple II [April 16].

In Dec., *Time* magazine remarked that the PCjr "looked like one of the biggest flops in the history of computing…[it] sold as sluggishly as Edsels in the late 1950s". Spinnaker Software chairman William Bowman was quoted as saying: "We're just sitting here trying to put our PCjr's in a pile and burn them. And the damn things won't burn. That's the only thing IBM did right with it – they made it flameproof."

nCube

Nov. 1, 1983

Stephen Colley, Dave Jurasek, John Palmer, and three others left Intel to found nCube, with the goal of building parallel computers.

In 1985 they released the nCube/10, a custom VLSI implementation of Charles Seitz's Cosmic cube architecture [Oct 00]. Each computing node was a chip with a 32-bit ALU, a 64-bit FPU, special communication software, and 128 KB of RAM. The machine could be configured to use between 16 to 1024 nodes, organized into a 4- upto a 10-Hypercube network. The 4-cube was called a tesseract, and the 10-cube a dekeract.

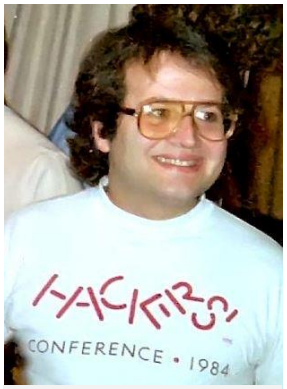
A dekeract configuration meant that any processor was only a maximum of 10-hops from any other node, which greatly reduced communication latency. As a result, the nCube/10 was one of the fastest computers on the planet.

Larry Ellison [Aug 17] invested heavily in nCube in 1988, and eventually, the company was absorbed into Oracle's Network Computer division.

Unfortunately, Captain America was unable to stop him.

First Hackers Conference
Nov. 1-3, 1984

The first "Hackers" Conference was organized by Stewart Brand [Dec 14] at Fort Cronkhite, a former US Army base, just north of the Golden Gate Bridge. He had been inspired by Steven Levy's [Jan 26] "Hackers: Heroes of the Computer Revolution" to arrange a meeting between the people described in the book, and other interested folks.



Andy Hertzfeld wearing a Hackers t-shirt. Photo by Tony Wills. CC BY-SA 3.0.

The 150 attendees included Steve Wozniak [Aug 11], Andy Hertzfeld [April 6], Ted Nelson [June 17], Richard Stallman [March 16], John Draper [March 11], Richard Greenblatt [Dec 25], and Bob Wallace [May 29].

For a fee of $90, each attendee got a bunk in the army barracks, army-style meals, a copy of Levy's book (which they probably already had), and a T-shirt emblazoned with the word "Hackers". During the meeting, a neo-Christian group insisted on getting up at 7:00 a.m. each morning to sing "This Is My Father's House".

The gathering was recorded in the PBS documentary: "Hackers - Wizards of the Electronic Age".

Atari Coin-Op Championships
Nov. 1, 1991

The first Atari [June 27] Coin-Op World Championships came to a close at the Chicago Expo Center. Eric Ginner was the overall winner and Ok-Soo Han the female champion. They received checks for $12,000 and $4,000 respectively, which both bounced.

Atari had spent over $100,000 promoting the tournament, sending out 1,500 promotional packages and running a month-long ad campaign in Chicago. The organizers (Seattle's "Tournament Games") had hoped for between 10,000 to 15,000 coin-op players to attend, but only 250 showed up. This put a rather serious dent in their finances.

Among the other contestants was actor Matthew Laborteaux who played Albert in the TV series "Little House on the Prairie".

FreeBSD Released
Nov. 1, 1993

FreeBSD is a free, open source UNIX OS, descended from the Berkeley Software Distribution (BSD [March 9]), but without the rights to use the UNIX trademark. This was due to a 1994 lawsuit between UNIX's copyright holder, UNIX Systems Labs (USL; part of AT&T), and the University of California at Berkeley. USL claimed that BSD's source code benefited from AT&T intellectual property (i.e. it used UNIX code) without a license.

Subsequently, when FreeBSD 2.0 was released on Nov. 22, 1994, all AT&T code had been expunged. It also sported a new installer and boot manager, and support for interacting with MS-DOS.

Today, FreeBSD is probably the most widely used UNIX variant. Indeed, parts of Apple's Mac OS X [March 24] are based on FreeBSD, as are parts of the OSes in the PlayStation 3 [Nov 11] and 4 [Nov 15].

J-SH04 Released
Nov. 1, 2000

Sharp's J-SH04 mobile phone was Japan's first with a built-in camera (with 110,000-pixel resolution) and a 256-color display. It has been called the world's first camera phone, but Samsung's SCH-V200, equipped with a camera, was released in South Korea in June. The V200 was capable of taking 20 photos at 350,000-pixel resolution.

A crucial difference between the two devices was the integration of the phone and camera. The J-SH04 allowed you to view and send photos from the phone. However, the camera and phone in the V200 were essentially separate devices housed in the same case. In particular, this meant that the phone had to be linked to a computer to get at the pictures.