Jan. 7th

First Transatlantic Phone Service

Jan. 7, 1927

Bell Labs president Walter S Gifford in NYC spoke to Sir Evelyn Murray, secretary of the General Post Office (GPO), in London using the modern miracle of radio. It was the first call using the new commercial telephone service between North America and Europe. It cost £40 a minute, and 30 more calls were made that day.

A report in *The Manchester Guardian* newspaper noted that the weather and the time difference were the main topics of the conversation, and that "a more pleasantly futile dialogue could hardly have taken place over a suburban party-wall in Dulwich or Chorlton-cum-Hardy."

A Pacific service linked up Hawaii in 1931, which was extended to Tokyo in 1934, and Gifford was able to make the first round-the-world telephone call on [April 25] 1935.

Today's call wasn't the first intercontinental communication: Queen Victoria had sent a telegram to US President James Buchanan on [Aug 16] 1858. Guglielmo Marconi's first transatlantic radio message using Morse code occurred on [Dec 12] 1901. The first transatlantic radio broadcast was made on [Oct 20] 1915, and the very first radio conversation was achieved in Feb. 1926, a year before this public service began.

Stephen Richard Bourne

Born: Jan. 7, 1944; UK

Bourne was the author of the eponymous UNIX shell (aka sh), which can act as both a scripting language and a command line interface. It was designed to be backwards compatible Ken Thompson's [Feb 4] original shell for UNIX but added variables, ALGOL 68-like control flow, command substitution, and changes to how I/O was processed so that scripts could be used as UNIX filters.

Steve Bourne (2005). Photo by Dmitry Azovtsev. CC BY-SA 3.0.

Bourne was persuaded to begin implementing the shell by Dennis Ritchie [Sept 9] in Dec. 1975 while Thompson was away on sabatical leave at Berkeley. The first version was deployed early in 1976, and sh went on to become the default shell for UNIX Version 7. Most UNIX-like systems still include it, or a compatible shell such as Bash (the "Bourne-Again SHell").

Bourne also wrote the adb debugger, and the first book about UNIX, "The UNIX System" (1982).

In the early 1970's Bourne helped write a compiler for ALGOL 68 at the Computer Lab in Cambridge as part of his PhD work in astronomy, and his thesis was entitled "Automatic Algebraic Manipulation and its Application to the Lunar Theory"(he's now a Fellow of the Royal Astronomical Society).

Second Computing Conference

Jan. 7-10, 1947

"A Symposium of Large Scale Digital Calculating Machinery" was held in Harvard's new Computation Lab. In addition to the many technical presentations, there was a demonstration of the Harvard Mark I [Aug 7], and a preview of the Mark II.

Although this event wasn't the first computing conference (see [Oct 29]), it was the first 'large' gathering of the cognoscenti, with about 250 people in attendance.

During the meeting, Samuel Caldwell suggested the formation of an organization for people engaged in this new field which later became the ACM [Sept 15].

Georgetown-IBM Experiment

Jan. 7, 1954

The first public demonstration of machine translation (MT) was held at IBM's head office in NYC. Russian sentences transcribed onto punched cards were fed into an IBM 704 [May 7], and the 'equivalent' English statements were printed out.

The demo was a result of a joint project by IBM staff led by Cuthbert Hurd [April 5] and members of the Institute of Linguistics in Georgetown under the guidance of Leon Dostert. Dostert had proposed the project two years before, during the first conference on MT at MIT.

The demo involved the automatic translation of more than sixty (Romanized) Russian sentences at the rate of about 2 lines per second, with the examples covering a diverse set of topics: politics, law, mathematics, chemistry, and military affairs.

For example:

```
Kachyestvo uglya
opryedyelyayetsya
kaloryiynostjyu
```

became

```
The quality of coal is
determined by calorie
content.
```

However, the system actually employed just six grammar rules and a 250 word vocabulary, and the Georgetown researchers strongly emphasized the limited nature of the demo.

Unfortunately, these limitations made it possible for the output to be impressively excellent, especially to the enthralled newspaper reporters. Also, Dostert, rather exuberantly, forecast that: “five, perhaps three, years hence, interlingual meaning conversion by electronic process in important functional areas of several languages may well be an accomplished fact.”

The next day, the front page of *The New York Times* and many other newspapers carried glowing reports of the event. One happy outcome was that funding for MT was generously increased over the next few years.

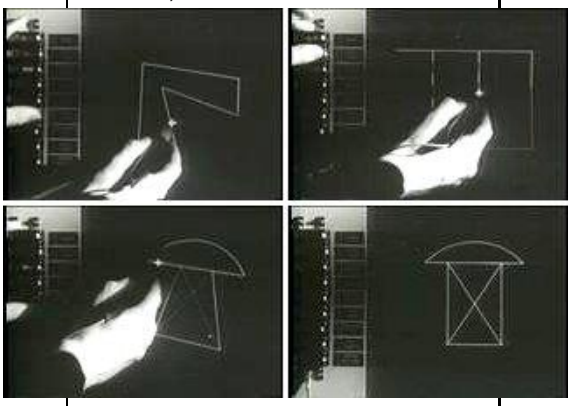
However, real progress was slow, and a largely negative report by the Automatic Language Processing Advisory Committee (ALPAC [April 00]) in Nov. 1966, caused that funding to dry up just as quickly. It was another two decades before government finance, through DARPA [Feb 7], again patronized MT.

Sketchpad

Jan. 7, 1963

Ivan Sutherland [May 16] submitted his PhD thesis on Sketchpad (aka 'The Robot Draftsman") to MIT. It's considered a seminal work in computer science because of how it laid the foundations for later graphical user interfaces (GUIs). For example, it inspired Douglas Engelbart [Jan 30] to develop the oN-Line System [Dec 9] at Stanford.

Sketchpad’s innovations included the use of a display file for refreshing the screen, a hierarchical structure for modeling graphical objects, geometric transformations, and an object-oriented programming style. It even incorporated a constraint management subsystem which reacted when drawing were ‘close’ to each other, or were ‘linked’.



Ivan Sutherland demonstrating Sketchpad. (c) University Video Communications (1987).

It helped that Sketchpad ran on Lincoln Labs’ TX-2 [Feb 26] which supported a range of non-standard I/O devices, including programmable buttons, an oscilloscope/video display, a light pen for input, and a pen plotter for output. This meant that a Sketchpad user could draw directly onto the screen, using a crosshair cursor controlled by a light pen.

Although mostly utilized to create engineering drawings, Sketchpad could also be employed artistically. One famous example was a drawing of the Egyptian queen Nefertiti, that was partially animated.

Timothy Johnson subsequently built a version of Sketchpad that supported 3D shapes, and Lawrence Roberts [Dec 21] added 3D solids with real-time hidden line removal.

A 30-minute TV programme about Sutherland, Johnson, and Roberts' work was broadcast by WBGH in Boston in 1964.

Jeremy Lee Renner

Born: Jan. 7, 1971;

Modesto, California

The actor, twice nominated for Academy Awards, is probably best known as Hawkeye in the Marvel superhero films.

At Modesto Junior College, he studied computer science and criminology, before taking a drama class as an elective and deciding to pursue that career.

He has remarked: “I realized that my personality didn’t fit behind a computer or tearing apart a computer.”

Chess Computer

Jan. 7-9, 1977

Chess Challenger 1 (CC1), built by Fidelity Electronics, was the first commercial chess computer. It debuted at the Chicago Consumer Electronics Show (CES) and went on sale in the Spring.

In the rush to be first, Fidelity accidentally printed the files and ranks labels on the device switched around, which has made this release a collector's item.

The machine used a 8080 chip [April 18], had 512 bytes of RAM, and 2 KB ROM. With such limited memory, the game play was unsurprisingly weak, and would even let the user make illegal moves. Nevertheless, CC1 marked the beginning of the dedicated chess playing computer. It's successor, Chess Challenger 3 (the number 3 referred to three levels of play), went on to enjoy huge worldwide sales.

The story goes that Sidney Samole, Fidelity CEO, had the idea while watching a "Star Trek" [Sept 8] episode in which Mr. Spock played chess against the Enterprise’s computer. Of course, Spock was an exceptional player of 3D chess, not Earth’s simpler version. The 3D game cropped up in multiple episodes, but played a

significant role in the “Court Martial” episode of the first series (which originally aired on Feb. 2, 1967).

The next day Samole's secretary informed him that her husband, Ron Nelson, was working on a hobby chess program for his Altair 8800 [Dec 19]. Samole immediately hired him, and Nelson went on to write all the chess software for the early Fidelity devices.

Commodore 64

Jan. 7, 1982

Commodore [Oct 10] unveiled the Commodore 64 (C64) at CES in Las Vegas. It featured a 6510 processor, 64K of RAM, 20K of ROM with Microsoft BASIC, a custom SID sound chip [next entry], and the VIC-II video chip with support for 16-color graphics [Sept 9]. It could be plugged into a TV or use a monitor.

The Commodore 64. Photo by Evan-Amos.

The C64 went on to dominate the low-end computer market for most of the 1980's, and is listed in the Guinness World Records as the highest-selling single computer model of all time, having shifted between 10 and 17 million units.

Part of the C64’s success was its presence in regular retail stores instead of just electronics and/or computer hobbyist specialty shops. Also, Commodore produced many of the device's parts in-house which made it easier to control costs.

The C64 still has legions of fans, as witnessed by active web sites such as C64.com and C64.org.

SID Makes Music

Jan. 7, 1982

The Commodore 64's [prev entry] MOS 6581 Sound Interface Device (SID) was one of the first sound chips in a home computer.

SID, together with the VIC-II graphics chip, helped make the C64 the best-selling computer in history, and was also partly responsible for rise of the home computer demo scene.

SID was designed by a team led by Robert Yannes, which completed the chip in just five months. SID had unique features for the time, including both analog and digital circuitry. Nevertheless, Yannes was somewhat unhappy with the result, but his team colleague, Charles Winterble, responded: “This thing is already ten times better than anything out there and 20 times better than it needs to be.”

Some much-loved characteristics of the SID were technically bugs. For instance, the SID was designed to play three sounds simultaneously, but a glitch allowed a fourth voice to play sampled drums or speech.

PDA Coined

Jan. 7, 1992

Apple CEO John Scully [April 6] coined the term “personal digital assistant” (PDA) during his keynote speech at CES in Las Vegas. This was intended as an indirect reference to the Newton [Aug 3], which wasn’t mentioned by name. The plan was to announce the Newton to much fanfare during Chicago's CES in the Summer [May 29].

The mythical PDA would allow its user to communicate with ease through email, and smoothly handle all their personal information. Scully predicted that the business would be worth $3.5 trillion by 2003. He had been promoting the concept since joining Apple, and had even commissioned two high budget video mockups of a product he called the “Knowledge Navigator” in 1986, which looked quite similar to Alan Kay’s [May 17] Dynabook.

Steve Sakoman was initially in charge of the Newton project. His aim was to create a tablet the size of a folded A4 sheet of paper, with handwriting recognition, costing around the same as an ordinary PC. Sakoman resigned in 1990, and Larry Tesler [April 24] took his place.

The Worshipful Company

Jan. 7, 1992

The "Worshipful Company of Information Technologists" [Nov 00] is one of the Livery Companies of the City of London, founded on this day by the Court of Aldermen, making it the 100th such company. It received its Royal Charter from Prince Edward on June 17, 2010.

The company's motto is Cito (‘swiftly’ in Latin), which also incorporates its initials. Incidentally, CITO is also an abbreviation for "Cache-In Trash-Out", a term prominent in geocaching [May 3].

The company has over 800 members — all experts in the mysteries of information technology – including Tim Berners-Lee [June 8], Vint Cerf [June 23], Bill Gates [Oct 28], and several past Presidents of the BCS [Oct 14].

The company is located in Bartholomew Close, near to the Barbican tube station, and is officially affiliated with the Beckenham and Penge Sea Cadets.

Rhapsody on Stage

Jan. 7, 1997

Steve Jobs [Feb 24] and Steve Wozniak [Aug 11] appeared together on stage at the Macworld Expo for the first time since 1984. Their big announcement was Apple's plan to release an OS codenamed Rhapsody.

Rhapsody consisted primarily of the NeXTSTEP OS [Oct 12], ported to the Power Mac, with a new GUI to make it look more Mac-like. Apple had bought NeXT on [Dec 20] 1996.

The "Rhapsody " moniker followed a trend of music-related codenames that Apple applied to its OSes during the 1990s. For example, Gershwin and Copland [May 8] were named after George Gershwin and Aaron Copland.

Rhapsody would evolve into Mac OS X, which was finally released on [March 24] 2001.

Tibia Goes Online

Jan. 7, 1997

Tibia is one of the longest running massively multiplayer online role-playing games (MMORPG [June 23]). It has remained online since 1997, with the developers releasing updates every six months. Tibia began in 1995 as a hobby project of German students Guido Lübke, Stephan Payer, Ulrich Schlott and Stephan Vogler.

Tibia is a two-dimensional tile-based game set in a fantasy world with pixel art graphics and a top-down perspective viewpoint. It's free to play, but users can pay to upgrade to a premium account.

The game is distinguished by its harsh penalties when a player dies. All your equipment and inventory can be stolen by whoever comes across your body, and you can lose levels, including hard-earned trade skills. However, the company behind Tibia (CipSoft) has been honored with the title "Great Place to Work", as one of Bavaria's best employers.
