Dec. 22nd

Thomas Harold Flowers

Born: Dec. 22, 1905;

Poplar, London
Died: Oct. 28, 1998

Flowers was the designer of the Colossus [Jan 18], the world's first (or perhaps second) programmable, electronic, digital computer. It was built to help break encrypted German messages at Bletchley Park [Aug 15]. He also produced ten improved Mark 2 versions. [June 1].

The other contender for "first" was the ABC [Jan 15] built by John Vincent Atanasoff [Oct 4] and Clifford Berry [April 19]; it all depends on the meaning of "programmable".

Tommy Flowers. http://history-computer.com/

The Colossus design was Flower's response to the mostly electro-mechanical Heath Robinson [June 1] codebreaking machine that had debuted at Bletchley earlier in 1943. Flowers had also gained experience from helping Alan Turing [June 23] with the design of an electronic decoder for Turing's Bombe [March 18].

Flowers' team at the Post Office research division in Dollis Hill also drew on precedents from telephone machinery: counters, branching logic, equipment for routing and translating signals.

However, Flowers was a pioneer in using vacuum tubes as very fast switches, instead of electromechanical relays. Tubes were perhaps a thousand-fold faster, and relays, being mechanical, wore out, so their performance got even worse over time. The only major downside of tubes was their unreliability, but Flowers discovered that they could operate reliably for long periods, so long as they were left running,

The Mark 1 Colossus used around 1,800 tubes compared to the 150 in the Heath Robinson, and was five times faster. Incidentally, the ABC used 280.

Since Flowers' work was covered by the Official Secrets Act, it wasn't until the 1970's that his contributions were fully recognized.

Morton Leonard Heilig

Born: Dec. 22, 1926;

USA
Died: May 14, 1997

Heilig was a pioneer of virtual reality (VR) in the 1950's, and first explained his ideas in the 1955 essay, "The Cinema of the Future." It looked at what would come after Cinerama and 3D films, namely the "Experience Theater" which combined all the senses.

The Telesphere mask was the first prototype of his vision: it projected wrap-around visuals, played stereo sound, and blew out air at different velocities or temperatures. He filed a patent on May 24, 1957, and the accompanying drawing looks uncannily like modern VR technology such as the Oculus Rift [March 28].

His Sensorama (1961) developed things further, in a form not unlike a bulky, 1980's era video arcade cabinet. It was able to display stereoscopic 3D wide-angle images, move the user's chair, play stereo sound, and blow aromas.

Five short films were made for the Sensorama, including one about a bicycle ride through Brooklyn. The user felt the wind on their face, the vibration of the bike's wheels, and even inhaled some of its smells. Heilig built his own 3D camera to make the films.

The short which proved most popular featured a performance by a NYC belly dancer. The Sensorama would pump out perfume whenever she was near the camera.

Later VR devices include Ivan Sutherland's Sword of Damocles [Dec 9], the Aspen Movie Map [July 14], Myron Krueger's [March 1] Videoplace, Dan Santin's [?? 1942] and Tom DeFanti's [Sept 18] data glove, VIEW [Oct 23], VPL Research's goggles and gloves [May 3].

Current devices include the Oculus Rift [March 28], the PlayStation VR [Oct 13], and the HTC Vive [April 5].

The first fictional use of VR appears in Stanley G. Weinbaum short story, "Pygmalion's Spectacles," published in [June 00] 1935.

Kitchen Computer Advertised

Dec. 22 ??, 1969

The Honeywell Kitchen Computer (or more formally, the H316 pedestal), was offered by Neiman Marcus in its Winter catalogue. It combined sleek good looks, a cutting board, and a Honeywell 316 for storing recipes (indeed, it came pre-loaded with a few). There was also software for recommending meals from a supplied list of ingredients, and for balancing the family checkbook.

One drawback perhaps was that the user had to complete an intensive two-week course to learn how to program the device using toggle switches, and read the light bulb outputs. However, this training session was included in the price of the

device, a snip at $10,600, along with a cookbook and apron.

The Honeywell Kitchen Computer was the latest in a long line of publicity stunt ads that featured in every Neiman Marcus Winter catalogue (e.g. see [four entries forward]). These had included your own Noah's Ark, tank, two-passenger submarines, backyard ski slope, a $50,000 dirigible, and His-and-Hers windmills. Nevertheless, this was probably the first time a computer was sold as a consumer product.

The Honeywell 316 was a real machine, a popular 16-bit computer of the time. For example, one was used by Charles Moore to develop Forth [Nov 13], and the earlier Honeywell 516 and the 316 were employed as Interface Message Processors (IMPs) [Aug 30] for the ARPANET [Oct 29]. A 316 was still in use at a UK nuclear power station in 2000 for monitoring reactor temperatures (which is actually quite frightening).

The Honeywell Kitchen Computer wasn't the first 'home' computer; that was the 1966 Electronic Computing Home Operator (ECHO IV) [April 16].

Welcome to the Dungeon

Dec. 22 ??, 1975

"The Dungeon" was probably the first dungeon exploration game. A player generated a character with "Dungeons and Dragons" [July 27] inspired statistics: strength, dexterity, hit points, etc., and then explored a dungeon using a map with a top-down perspective of the terrain.

It was written by Reginald "Rusty" Rutherford III for the PLATO system [July 00] at the University of Illinois at Champaign-Urbana in a few weeks during the fall of 1975.

There are claims that a game called "m199h" predates it, but no copies of that excitingly named treasure have yet been found. Another possibility for first is Don Daglow's [Sept 12] "Dungeon" for the PDP-10.

Rutherford's "The Dungeon" was also known as PEDIT5, to hide the fact that it was a game from the strict PLATO sysadmins. The "PEDIT" prefix belonged to the Population and Energy group, and the numbers '4' and ''5 were unused. The game's instruction manual was stored in the PEDIT4 file.

"The Dungeon" faded from view, but not before Southern Illinois University students Gary Whisenhunt and Ray Wood had played it. They expanded its concepts, and in early 1976, they released "dnd". It offered more complex combat and spell systems, more items to collect, and the dungeon was significantly larger. Also, the monsters got tougher to kill the deeper players went into the dungeon. The game also introduced the notion of a "general store" where players could purchase equipment.

"dnd inspired many other games on PLATO, including Orthanc (1978), and the first-person multiplayer games Avatar (1977) and Moria (1978), which still possess active online communities.

Scheme

Dec. 22, 1975

The Scheme language was introduced in MIT AI Memo 349, "Scheme: An Interpreter for Extended Lambda Calculus". It was the first of Guy L. Steele Jr. [Oct 2] and Gerald Jay Sussman's [Feb 8] "Lambda Papers" (1975-1980) concerning the lambda calculus [April 15], continuations, and related programming concepts.

Scheme was influenced by two quite different languages: Lisp [April 15] provided its semantics and syntax, and ALGOL [Jan 11] its lexical scope and block structuring. It also started as an attempt to understand Carl Hewitt's [Dec 11] Actor model.

First, Steele and Sussman wrote a tiny Lisp interpreter in Maclisp [Dec 25] and then added mechanisms for creating actors and sending messages.

Scheme was originally called "Schemer", in the tradition of other Lisp-derived languages such as Planner [Dec 11] and Conniver.

French Computer ça ne se fait pas

Dec. 22, 1981

The French government issued an edict banning US-derived computer terms from official documents. Below are a few of these bêtes noires, with their sanctioned French translations (f == female; m == male).

- backup; de secaurs (adj.)
- database; base de données (f.)
- hard copy; tirage (m.) or fac-sim (m.)
- on-line; en ligne (adv.)
- RAM; mémoire vive (f.)
- ROM; mémoire morte (f.)
- software; logiciel (m.)
- word processing; traitement de texte (f.)

The French Ministry of Culture: the Palais-Royal in Paris. Photo by Guilhem Vellut. CC BY 2.0.

The fight continues – on June 20, 2003, the French culture ministry announced a ban on the use of the word email (or e-mail) in all government ministries, documents, publications, and websites. Henceforth "courriel" should be used. The ministry's commission argued that French Internet users often employ the term "courrier electronique"

(electronic mail) instead of email, and courriel is a fusion of the two words, used in French-speaking Quebec.

The seven-year-old commission has links to the Académie Française, the prestigious institution created in 1635 by Cardinal Richelieu, which actively opposes the assimilation of English terms into French. However, the Académie hasn't enjoyed much success in outlawing other invaders, such as “le weekend” and “le shopping”. Indeed, many French speakers still use “email”, “mail,” or perhaps “mél” (a portmanteau of “message electronique”). Mél nicely matches the abbreviation “Tél.” used for the telephone number field on documents.

The ComRo 1 Household Robot

Dec. 22 ??, 1981

In the grand tradition of his-and-hers submarines, windmills, and kitchen computers (see [four entries previously]), this year’s Neiman-Marcus Winter catalog featured the ComRo l, a Domestic Robot system, designed by Jerome Hamlin.

The Comro I with its vacuum cleaner accessory. http://cyberneticzoo.com

The 4. 5-foot high, acrylic-encased robot had an extendable arm that could lift up to 10 pounds. It was operated either by remote control or by a microcomputer in its head. Its 6502 microprocessor [Sept 16] came with 4K of RAM (mémoire vive), expandable to 64K.

The catalog boasted that the ComRo I “will open doors, serve guests, take out the trash, bring in the paper, sweep, fetch, do light hauling, water the plants, dust, pick up after the children (and pets), caddy at the putting green, and walk the dog.”

Two were sold – one to Mitsubishi and another to the head of a Saudi Arabian import company.

‘’We probably got more response to it than anything we’ve done in the Christmas catalogue in the last 10 to 15 years,’’ said Tom Alexander, vice president of marketing and sales promotion.

The ComRo family of robots went on to include: “TOT 3000”, “Bumpy”, and “Bubble Bot”

For more robot men, see [Feb 00], [Feb 24], [March 23], [March 24], [April 16], [April 30], [July 17], [July 30], [Sept 15], [Nov 11], [Nov 30].

First Webring

Dec. 22, 1994

EUROPa (Expanding Unidirectional Ring Of Pages), the first webring, was started by Denis Howe at Imperial College in London, the idea being to create a collection of related sites connected by a common navigation bar with links to the 'previous' and 'next' sites in the ring.

The navigational functionality was implemented as a CGI (Common Gateway Interface) script written by Sage Weil in May 1994. Weil's software gained popularity, persuading him to form a company called WebRing in June 1995. In 1997, Weil sold WebRing to Starseed, Inc, which in turn was acquired by GeoCities [June 7] in 1998. A few months later, in early 1999, Yahoo! bought GeoCities [May 28], and eighteen months after that, on Sept. 5, 2000, Yahoo! unveiled an overhauled Yahoo! WebRing. It proved rather unpopular since the "ring masters" lost access to their webrings. New webrings started appearing with names such as "Another Victim of Y! Hooliganism Screams", "The Y-Free Webring", and "The Anti-Yahoo! Webring".

On April 15, 2001, Yahoo! dropped WebRing, leaving it in the hands of Timothy Killeen who soon stripped the software of its Yahoo! branding. However, webrings were falling from favor by this time, due to the growing coverage and functionality of search engines [Aug 19].

SELinux 1.0

Dec. 22, 2000

Security-Enhanced Linux (SELinux) was, perhaps rather surprisingly, mostly developed at the NSA [Oct 24]), and released to the open source community on this day.

It modified the Linux kernel to include a mandatory access control (MAC) architecture similar to the one required by the DoD for its computers. The MAC constrains the ability of a ‘subject’ to perform operations on an ‘object’. Within an OS, a ‘subject’ could be a process or thread, and ‘objects’ might be files, directories, TCP/UDP ports, and so on.

The software was merged into the mainline Linux kernel on Aug. 8, 2003, and soon after became part of many commercial distributions, such as Red Hat Enterprise Linux, Fedora, Debian, and Ubuntu.

Today, SELinux is popular for systems based on Linux containers, (e.g. CoreOS Container Linux) as an additional security measure.

For more Linux distributions, see [Aug 15], [July 17], [Sept 15],

[Aug 11], [Oct 20], [April 15], and [Feb 19].