Erich Bloch

Born: Jan. 9, 1958;

Sulzburg, Germany
Died: Nov. 25, 2016

Working at IBM in the early 1950's, Bloch began development of the company's first ferrite-core memory with over 1 million bits. Later he became the engineering manager of IBM's STRETCH [April 26]. By 1962, he was heading development of the Solid Logic Technology (SLT) program, which provided IBM with microelectronic technology for its System/360 [April 7].

It was only with the System/370 [June 30] that IBM moved to integrated circuits, but while most companies packaged ICs in plastic or ceramic rectangles, IBM retained the half-inch-square metal SLT packages, calling them MST, for Monolithic Systems Technology.

MST was a big improvement over SLT, about ten times more reliable and 4 to 8 times as dense. Each module typically housed 32 transistors implementing about six gates, so thousands were required per computer.

From 1984 to 1990, Bloch served as the 8th director of the National Science Foundation, the first recruit from industry. He played a key role in establishing the nation's supercomputer centers, and encouraged the development of the NSFNET [July 16].

A quote: "When I started at IBM, I was looked at as a screwball: 'Yeah, he wants to play around with computers.' "

IBM on Social Security

Jan. 9, 1937

The Depression hit IBM hard, but things were about to change with today's release of the IBM Type 77 collator, a large gray punch card reader.

After the US Social Security Act had been passed in Aug. 1935, the government was now obliged to keep track of the contributions of 26 million Americans, and more than 3 million employers. The Type 77 was developed especially for the processing of this information, and its resulting success allowed IBM to dominate the data processing industry well into the 1980's.

An IBM Type 77 Collator. Photo by Kmorozov. C BY-SA 3.0.

The first Social Security benefit check, number 00-000-001, printed on an IBM punched card of course, was issued on Jan 31, 1940. The check for $22.54 was issued to Ida May Fuller, age 65, of Ludlow, Vermont.

So many records were generated, and the 415 IBM machines required for handling them weighed so much, that no building in Washington had floors strong enough. This led the first data processing center to being set up in an old Coca-Cola plant on Baltimore's waterfront.

Software

Jan. 9, 1958

The first published use of the term "software" in a computing context is credited to John W. Tukey [June 16] in his article, "The Teaching of Concrete Mathematics," which appeared in today's *American Mathematical Monthly* journal. The relevant sentence:

> "Today the 'software', comprising the carefully planned interpretive routines, compilers, and other aspects of automative programming, are at least as important to the modern electronic calculator as its 'hardware' of tubes, transistors, wires, tapes, and the like."

There was an earlier use of "software", in a RAND [Oct 1] research memo published by Richard R. Carhart on Aug. 14 1953, but it didn't explicitly refer to programming. Another claimant is mathematician Paul Niquette who said that he invented the term in Oct. 1953, although he couldn't find any documents supporting his claim.

Two more possible firsts:

1. "There will be no software in this man's army!" by General Dwight D. Eisenhower, ca. 1947.

2. "He owned the very best shop in town, and did a fine trade in soft ware, especially when the pack horses came safely in at Christmas-time" from "Lorna Doone" (1869) by Richard Blackmore.

Game Championship

Jan. 8-9, 1983

The world's first video game championship was held in Ottumwa, Iowa, organized by Walter Day's "Twin Galaxies" [May 14] (which was located in the town).

The contest was preceded by the world's first video game themed parade, made up of four horses, several Shriner motorcycles, a "kid wearing a cardboard Pac-Man cutout over his head", flag-bearing entrants, and a torch bearer.

The competition was eventually won by Ben Gold, aged 16, who scored 40,001,150 points on "Stargate" (aka Defender II), in a

playing time of 35 hours, 50 minutes. Gold would later join the US National Video Game team, which also featured Billy Mitchell [July 3].

Ottumwa mayor, Jerry Parker, declared the town "Video Game Capital of the World" in a ceremony at Twin Galaxies on March 19, supported by Iowa Governor Terry Branstad, Atari [June 27], and the Amusement Game Manufacturers Association.

Internet Addiction Disorder
Jan. 9, 1995

"Internet addiction disorder" (IAD), referring to an excessive Internet use that interferes with the person's daily life, was proposed by Ivan Goldberg, M.D. on psycom.net, a psychiatry bulletin board. Helpfully, he also suggested a test for the condition that examined seven symptoms. Among them were "voluntary or involuntary typing movements of the fingers".

Goldberg's definition was intended as a parody, and he later claimed in a *New Yorker* article (Jan. 13, 1997) that having an Internet addiction support group made "about as much sense as having a support group for coughers."

However, by then the first 'real' study of Internet use as a form of addiction had been published (May 1996) by Univ. of Maryland researcher, Steven John Thompson.

Photoshop and Counterfeit Currency
Jan. 9, 2004

It was reported that the current version of Photoshop (CS 8.0, released in Oct. 2003) [Feb 19] would refuse to print scanned images of various banknotes.

Adobe later admitted that they had added this feature at the request of the Central Bank Counterfeit Deterrence Group (CBCDG), an organization formed in 1993 by the governors of the G-10 central banks.

The banknote detection code, the Counterfeit Deterrence System (CDS), had been supplied to Adobe [Oct 6] by the CBCDG as a binary module.

Experiments by Steven Murdoch and others showed that the module didn't rely on the EURion constellation but looked for a digital watermark.

Eight EURion constellations highlighted with lines on a $20 bill (2006). Photo by Dunnce.

The EURion constellation (aka the Omron rings or doughnuts) is an x-shaped pattern made up of five small rings which has been encorporated into many banknote designs since 1996.

The "EURion" name was coined by security researcher Markus Kuhn, who first discovered the pattern on the 10 Euro banknote in early 2002 while experimenting with a Xerox color photocopier. The word is a portmanteau of EUR, the Euro's abbreviation, and Orion, a constellation of stars with a similar shape.

iPhone
Jan. 9, 2007

In April 2003, at Apple's "All Things Digital" conference for its executives, Steve Jobs [Feb 24] tabled the idea of developing a smartphone. In 2004 Jobs tasked Scott Forstall with assembling a team to design one.

Dubbed "Project Purple", the phone most definitely had to offer a multi-touch user interface. Both Jobs and Forstall hated phones that used a physical keyboard and/or a stylus, as found in the BlackBerry [March 4], Motorola [Jan 3], and Palm [June 1] devices of the day.

The iPhone was introduced by Jobs on this day in an hour long keynote speech at the Macworld conference. In his address, he said, "This is a day, that I have been looking forward to for two and a half years", and "today, Apple is going to reinvent the phone."

What he didn't mention was that while the prototype he was demoing could perform basic phone functions, such as making calls or sending texts, about half of the apps displayed on the screen didn't work and the other half often caused the device to crash.

Jobs' demo included a humorous phone call to Starbucks: "I'd like to order 4,000 lattes to go, please. No, just kidding. Wrong number. Goodbye!" The barista who answered the call, Ying Hang "Hannah" Zhang, was still working at that Starbucks in 2013, which was amazing since Apple fanboys regularly rang the shop to ask for thousands of lattes.

The iPhone was released six months later, on [June 29], 2007.