Nov. 29th

Daniel Gureasko Bobrow

Born: Nov. 29, 1935;

The Bronx, NYC
Died: March 20, 2017

Bobrow created an early natural language based AI system called STUDENT, capable of solving algebra word problems, which was written up as the first Project MAC [July 1] technical report. He also developed the knowledge-sharing system Eureka which aided Xerox service engineers, and Powerset, a natural language search engine that was snapped up by Microsoft. Terry Winograd [Feb 24] and Bobrow developed one of the first frame-based knowledge representation languages: KRL.

At BBN [Oct 15], he contributed to the TENEX OS (short for TEN-EXtended) for the PDP-10, which was bought by DEC and became the basis of its TOPS-20 [Jan 4] (which some hackers preferred to call TWENEX).

He worked on BBN-Lisp [April 15], which became Interlisp when the development team moved to Xerox PARC [July 1].

In the middle of an intellectual debate he would often yell out "Everyone change positions." This meant that whatever side you were arguing for, start arguing against it. It didn't (necessarily) mean change seats.

H. R. (Bart) Everett

Born: Nov. 29, 1949;

USA

At the Naval Post Graduate School in Monterey in the mid-1980's, Everett created one of the first behavior-based autonomous robots, a wheeled machine called Robart I.

Robart employed a novel layered hierarchy of behaviors, allowing it to avoid obstacles, and respond to impacts. A variety of sensors, including infrared, ultrasonic, and audio devices, could detect objects, and monitor for vibrations, fire, smoke, toxic gas, and even flooding. It communicated using a form of speech synthesis, probably a first for a mobile robot.

While Robart I could only perceive potential intruders, Robart II (1982-1992) could also assess the potential threat level of the intrusion. Robart III (1992-2009) demonstrated the feasibility of automated responses to those threats, using (for example) a pneumatically powered six-barrelled Gatling gun.

MONIAC

Nov. 29, 1949

The MONIAC (Monetary National Income Analogue Computer) was built by William Phillips while studying at the London School of Economics (LSE), in order to model the UK's economy.

The MONIAC at the Reserve Bank of New Zealand. Photo by Kaihsu Tai.

At various times, the device was also known as the Financephalograph and the Phillips Hydraulic Computer, and the much more catchy MONIAC title may have been suggested as a way of combining "money" and "ENIAC" [Feb 15].

MONIAC was a water-based analogue computer, approximately 2m high, 1.2m wide, and almost 1m deep, built from a series of transparent plastic tanks and pipes. Each tank represented some aspect of the economy, and the flow of money was denoted by the movement of colored water through the device. Mathematically speaking, it was solving nine simultaneous equations. Phillips later added a system of colored pens that automatically drew graphs of these relationships.

He built the first version in his landlady's garage in Croydon, using war surplus parts, including pieces salvaged from an old Lancaster bomber, and demonstrated it at the LSE on this day; Phillips was subsequently offered a teaching position.

Probably fourteen MONIAC's were built altogether, and at least one is still functioning – in the Faculty of Economics and Politics at Cambridge University, lovingly restored by Allan McRobie. Another MONIAC was the centerpiece of New Zealand's exhibit at the 2003 Venice Biennale arts festival (Philips is a New Zealander.)

The first water-based analogue computer was developed by Vladimir Lukianov in the USSR [March 4]. For a water-based digital computer, see [Oct 27].

Pong

Nov. 29, (27 or 28 ??), 1972

Atari [June 27] co-founders Nolan Bushnell [Feb 5] and Al Alcorn [Jan 1] wheeled the first Pong arcade unit into Andy Cappa's Tavern at 157 West El Camino Real, Sunnyvale,

California (now the site of a comedy club, "Rooster T. Feathers").

The legend goes that the machine mysteriously stopped working during its second day at the bar, and Alcorn was hurriedly called in to fix it. He discovered that the coin mechanism (repurposed from an old laundromat's washing machine) was jammed full with quarters. Sadly, Alcorn claims this story isn't accurate. The jam occurred, but after more like a week.

The idea for Pong was born after Bushnell attended a demonstration of the Magnavox Odyssey [May 24], which included a ping pong game. Bushnell gave the task of making a tennis-based arcade game to Alcorn. The result was certainly similar to the Odyssey game, although Alcorn incorporated several improvements, such as scoring and sound.

Bushnell has said, "Basically, I felt it was a throwaway; however, [Alcorn] engineered it and the game turned out to be a lot of fun, so we decided to market it on the way to the driving game. I guess you could say Pong was a mistake."

A Pong cabinet signed by Al Alcorn at the Neville Public Museum in Green Bay, Wisconsin. Photo by Chris Rand. CC BY-SA 3.0.

Bushnell built the Pong units himself, at an old roller rink in Santa Clara that had been converted into a production line.

Each arcade machine took in roughly $200 a week, nearly four times what pinball games and jukeboxes earned at the time. Within four months there were 10,000 Pong machines across the country. In 1975, engineers Harold Lee and Bob Brown persuaded Alcorn to develop a home version of Pong, with the evocative name, "Home Pong".

Carl Sagan [Jan 10] would later wax lyrically that, "As a result of Pong, a player can gain a deep intuitive understanding of the simplest Newtonian physics."

Perhaps inevitably, Magnavox [March 8] filed a lawsuit against Atari in 1976 claiming that Pong violated several of its patents. For example, Ralph Baer's "ball-and-paddle" patent preceded Pong's appearance by at least six months. Atari subsequently settled out of court, agreeing to license Baer's work.

AutoCAD

Nov. 29 – Dec. 2, 1982

AutoCAD was the first commercial computer-aided design (CAD) software for PCs. It was demoed at the 1982 COMDEX [Dec 3], and released by Autodesk, Inc. later that month. Autodesk had only been founded back in January, by John Walker [Jan 00] and Dan Drake.

AutoCAD, then known as InteractCAD, had been written by Michael Riddle between 1977 and 1979. At one stage, he realized he needed a processor that could support hardware multiplication, which brought in a company called Marinchip Systems, owned by Walker and Drake, which made an S-100 board that fit the requirements.

Walker was interested in acquiring InterCAD for $8,000, but Riddle wanted $15,000. Finally, Riddle decided to sell his work for a dollar, plus 10% of the profits from its sales. This turned out to be a very sound financial decision indeed.

Autodesk's booth at COMDEX was continuously full of people, and it was obvious that AutoCAD was a hot product. Sadly, Autodesk's other debuting product, a text editor called Autoscreen, was soon forgotten.

A year later AutoCAD had generated $1.4 million in revenue, and reached over $100 million by 1989. In 1992, Riddle sold his rights to Autodesk for $12 million.

Chuck Norris is a Red

Nov. 29, 2011

user456584 on Hacker News [Feb 19] asked why HTML thinks that "chucknorris" is a color, in particular, why

```
<body
bgcolor="chucknorris">
test </body>
```

renders the background in blood red?

For those few people unaware, Carlos Ray "Chuck" Norris is an American martial artist, and popular action film star. He's a black belt in Tang Soo Do, Brazilian jiu jitsu and judo, has won many martial arts championships, and founded his own discipline Chun Kuk Do. He is perhaps best known for playing Colt, one of the main villains in "Way of the Dragon" (1972); the film climaxes with him fighting Bruce Lee in the Colosseum.

More recently, Norris has been associated with "Chuck Norris facts", absurd hyperbolic claims about his toughness, attitude, sophistication, and masculinity. For example:

- When Chuck Norris deletes files from his computer, he doesn't send them to the Recycle Bin. HE SENDS THEM TO HELL.

- Chuck Norris's computer has a live mouse attached to it.
- Chuck Norris **can** divide by zero.

The 2009 game, "Chuck Norris – Bring on the Pain!" is a side-scrolling beat 'em up, and a tongue in cheek tribute to the legend. The game is littered with Chuck Norris facts and incorporates a number into the gameplay; such as shooting down a helicopter by pointing his finger and yelling BANG!.

As regards HTML's "chucknorris", the interpretation of color strings in modern browsers dates from the time of Netscape [March 25]. The rules state:

- make the string a length that is a multiple of three by adding 0s: `chucknorris0`
- separate the string into three equal length strings: `chuc knor ris0`
- truncate each string to two characters: `ch kn ri`
- keep the hex values, and add 0's where necessary: `C0 00 00`
- convert to RGB (`c0,00,00`) = RGB(192, 0, 0)

MoMA and Video Games

Nov. 29, 2012

The Museum of Modern Art (MoMA) in NYC [Nov 27] announced that it had acquired 14 video games, as the seedbed for a wish list of about 40.

This initial group, installed in the Applied Design exhibition of the Museum's Philip Johnson Galleries, featured: Pac-Man [Oct 26]; Tetris [June 6]; Another World (1991); Myst [Sept 24]; SimCity 2000 [Feb 2]; Vib-Ribbon (1999); The Sims [Feb 4]; Katamari Damacy (2004); Eve Online [May 6]; Dwarf Fortress (2006); Portal [Oct 9]; flOw (2006); Passage (2008); and Canabalt (2009).

At least one of the game, namely Katamari Damacy, has been displayed in MoMA's design galleries before.

Naturally, the exhibition stirred up controversy, with some critics arguing that video games were not art and therefore should not have a place in an art gallery.

In June, 2013, six additions were announced: the Magnavox Odyssey [May 2]; Pong [Nov 29]; Space Invaders [June 5]; Asteroids [Nov 13]; Tempest (1981); Yars' Revenge (1982); and Minecraft [May 17].
