

March 21st

First Cybernetics Conference

March 21-22, 1946

The Josiah Macy, Jr. Foundation organized ten cybernetics conferences between 1946 and 1953, with Warren McCulloch [Nov 16] as conference chair.

The first conference's opening session had John von Neumann [Dec 28] and Lorente de Nó present overviews of digital computers and neurophysiology respectively. Topics discussed included: self-regulating mechanisms, neural networks, how computers might learn, perceptual differences due to brain damage, and compulsive repetitive behavior. Unfortunately, the details are a little sketchy since the first five conferences weren't published.

The conferences weren't grouped under a "Cybernetics" heading when they began, but had rather longer names. The first was called "Feedback Mechanisms and Circular Causal Systems in Biological and Social Systems", and the second was "Teleological Mechanisms and Circular Causal Systems."

The word cybernetics only started appearing with the seventh conference (March 23 - 24, 1950), at the suggestion of Heinz von Foerster who also became the proceedings editor. The word had been coined by Norbert Wiener [Nov 26] in 1948.

Stephen Byram Furber

Born: March 21, 1953; Manchester, UK

From 1980 to 1990, Furber worked at Acorn Computers [Dec 5] as a hardware engineer, and he and Sophie Wilson [?? 1957] were the principal

designers of the BBC Micro [Dec 1] and the ARM microprocessor [April 26].



Steve Furber (2009). Photo by Peter Howkins. CC BY-SA 3.0.

Furber's most recent project is SpiNNaker (Spiking Neural Network Architecture), also nicknamed the "brain box". The aim is to build a computer that can mimic the workings of the human brain by utilizing around 1 million ARM processors. The device is housed in ten 19-inch racks, each one holding 100,000 cores.

Even with a million processors SpiNNaker is still some way off the complexity of a human brain, which has just under 100 billion neurons, with 10^{15} synapses connecting them. Nevertheless, it's an important part of the EU's "Human Brain Project" (HBP), a ten-year project to advance knowledge in the fields of neuroscience, computing, and brain-related medicine.

Furber is a resident of the wonderful town of Wilmslow [June 23] [Dec 21].

Machine Brain Symposium

March 21-24, 1955

At the Institute of Radio Engineers' convention in NYC, the Professional Group on Electronic Computers (PGEC) sponsored a symposium on "The Design of Machines to Simulate the Behavior of the Human Brain".

The four panel members were Warren McCulloch [Nov 16], Anthony G. Oettinger, Otto H. Schmitt, and Nathan Rochester [Jan 14]. The moderator was Howard Tompkins.

McCulloch began the symposium with the following: "Since nature has given us the working model, we need not ask, theoretically, whether machines can be built to do what brains can do with information. But it will be a long time before we can match this three-pint, three-pound, twenty-five-watt computer, with its memory storing 10^{13} or 10^{15} bits with a mean half-life of half a day and successful regeneration of 5 per cent of its traces for sixty years, operating continuously with its 10^{10} dynamically stable and unreplaceable relays to preserve itself by governing its own activity and stabilizing the state of the whole body and its relation to its world by reflexive and appetitive negative feedback."

After the panel had read their prepared statements, a group of invited questioners joined the discussion. They included Marvin Minsky [Aug 9], John Mauchly [Aug 30], and Walter Pitts [April 23].

Mark "Zibo" Joseph Zbikowski

Born: March 21, 1956; Detroit, Michigan

Zbikowski was a key developer of Microsoft's file system, spanning MS-DOS, OS/2 [Dec 4], Cairo [Dec 14], and the Windows NT kernel [July 27]. He started working at Microsoft in Jan. 1981 (as employee no. 55), and in 2006 was honored for 25 years of service, the third employee to reach that milestone, after Bill Gates [Oct 28] and Steve Ballmer [March 24]. He retired from Microsoft later that year.

His first major contributions were to MS-DOS 2.0 [Aug 12], adding the hierarchical directory

structure and support for installable device drivers. He also created the EXE file format, and his initials are still encoded in the headers of every ".exe" file as the hexadecimals 0x4D, 0x5A which are "MZ" in ASCII.

While a student at Harvard and later at Yale, he was active in both universities' Gilbert and Sullivan opera groups.

DYNAMO

Spring 1959

DYNAMO (DYNAmic MOdels) was the first continuous-event simulation language (as opposed to discrete-event). It was developed in 1959 by Phyllis Fox and Alex Pugh at MIT as an extension of Richard Bennett's SIMPLE (Simulation of Industrial Management Problems with Lots of Equations).

The language provided an equation-based development environment that was powerful enough to simulate any general-purpose analog computer. It was an industry standard for over thirty years.

In 1970 Jay Forrester [July 14] used DYNAMO to build his "World Dynamics Model" to help the mayor of Boston, John Collins, manage the city. It was the first major non-corporate application of system dynamics, and later became the subject of Forrester's book "Urban Dynamics".

DYNAMO's next major application was the World3 simulation model of exponential economic and population growth with finite resources. It was described in "The Limits to Growth" (1972) [June 1].

The first discrete-event simulation language was GPSS [Dec 12] in 1961.

The First Tweet

March 21, 2006

Twitter, the first micro-blogging service, was developed by Jack Dorsey, Noah Glass, Biz Stone,

and Evan Williams. It became operational on this day when Dorsey posted the momentous Tweet: "just setting up my twttr."



Jack Dorsey (2014). Photo by cellanr. CC BY-SA 2.0.

Dorsey supposedly first shared his ideas for Twitter with his colleagues while on a slide in South Park, San Francisco. A more conventional origin story has it emerging from a day long brainstorming session at the podcasting company Odeo. (It's possible that both are true.) The initial concept was to share short messages in a group via SMS text messaging.

After a few months being used internally at Odeo, the Twttr service was publically launched on July 15. In Oct., the group was confident their concept would catch on, so bought the Twitter.com domain, which let them add an "i" and "e" to the product name.

It was some time before the word "tweet" was used to talk about Twitter posts; in the early days, it was much more common to use "twittering" as a verb and "twitter-ers" as a noun. According to the OED, the first use of "tweet" was on March 15, 2007 in the NevOn blog, although it may have originated with Blaire Cook in a post to Craig Hockenberry about the Twitterific app on Jan. 11. However, the word "tweet" didn't appear unquoted on Twitter's own blog until June 2008.

The old "Larry the Bird" Twitter logo was named after Larry Bird

of Boston Celtics fame. On June 5, 2012, Twitter replaced Larry with "Twitter Bird" which resembles a mountain bluebird.

Although heartily endorsed by the previous US president (until he was banned), not everyone is so enamored. Tech writer Bruce Sterling commented in 2007 that using Twitter for "literate communication" is "about as likely as firing up a CB radio and hearing some guy recite the Iliad".

Twitter is also in the sights of the intelligence agencies according to documents leaked by Edward Snowden [June 5]. The UK's GCHQ has a tool named BIRDSTRIKE for "Twitter monitoring and profile collection".

On April 3, 2021, this tweet was sold for £2.1 million to eight Malaysia-based tech. businessman in the form of a non-fungible token, a digital certificate that proves ownership. One of the buyers claimed that in time people would "realize the true value of this tweet, like the Mona Lisa painting".

For more tweets, see [Jan 22], [June 25], [Nov 21], [Dec 24]

Apple TV

March 21, 2007

Apple began shipping the "Apple TV", a digital media receiver. It had originally been called the iTV (as in iMac [May 6], iPod, iPad, etc.), but was renamed at the last moment after the UK TV broadcaster ITV threatened a lawsuit.

For a long time, Apple TV was considered a flop, or at best a second-tier Apple product. For example, Tim Cook [Nov 1] dismissed the device in 2010 as a hobby since Apple was primarily a mobile device company. However, in 2013 Apple TV posted sales of \$1 billion, prompting Cook to say, "It's a little more difficult to call it a hobby these days."

The fourth generation device started to move in the home console direction, adding a microphone and accelerometer, and links to an app store. Siri [Oct 4] was later added.

Before the Apple TV, the company had made three disappointing forays into "TVs plus computers": the Macintosh TV in 1993, the Apple Interactive TV Box in 1994, and the Apple Bandai Pippin from [March 28] 1995.
