March 29th

First Transatlantic News Service

March 29, 1903

The Times of London became the first newspaper to establish a regular news service between the US and UK with the help of the Marconi Telegraph Company [Jan 18], following four nights of tests.

It was to be short-lived; on April 6 a heavy ice storm at the Glace Bay station in Canada deposited one inch of ice on the antenna, which broke under the strain.

In March 1904, the station's transmitter power was doubled to 150 kW, and a completely new receiver was constructed at Clifden on the west coast of Ireland to replace the old Poldhu station. Commercial communications were reestablished in 1907.

David Canfield Smith

Born: March 29, 1945; Roanoke, Virginia

Smith is one of the pioneers of the GUI, having invented the computer icon, the desktop metaphor, dialog boxes, and "programming by demonstration".

His was initially interested in AI, but was inspired to change direction after Alan Kay [May 17] remarked, “I don’t want to make a smarter computer; I want to use computers to make people smarter.”

David Canfield Smith, SIGCHI

Smith's 1975 Pygmalion system (named after the sculptor from Roman mythology) debuted icons and programming by demonstration. Smith took the term 'icon' from the Russian Orthodox church, where an icon embodies properties of what it represents. Pygmalion was implemented in the brand new programming language Smalltalk [Oct 12] on the brand new personal computer the Xerox Alto [March 1].

At the end of the 1970's, Smith was one of the six principal designers of the user interface for the Xerox Star [April 27]. He recast his concept of icons in office terms. “I looked around my office and saw papers, folders, file cabinets, a telephone, and bookshelves, and it was an easy translation to icons.” Not everyone liked the idea; one tester remarked that the screen resolution made one icon look like a cross above a tombstone.

During the 1990's, he and Allen Cypher invented KidSim for the Apple Advanced Technology Group, with the aim of teaching children how to program without boring or overwhelming them. This led to Stagecast Creator, a visual programming language, but the startup ran out of funding. Smith recalls several venture capitalists telling him, "We love your software, and could we please have a copy for our kids? But we aren’t going to fund you because we’ve never made money on educational software."

Event One

March 29-30, 1969

“Event One” at London's Royal College of Art (RCA) was the first exhibition organized by the UK Computer Arts Society (CAS). It attracted over 700 visitors.

One of the reasons for CAS’s foundation by Alan Sutcliffe, George Mallen, and John Lansdown [Jan 2] was the success of “Cybernetic Serendipity”, the very first exhibition of computer art [Aug 1]. (In that case, the UK show should really have been called "Event Two".)

"Event One" highlights included filmmaker Malcolm Le Grice's collaboration with Sutcliffe on a work entitled “Typodrama”. It utilized a FORTRAN program to generate directions and dialogue for the actors. However, it wasn't the first dramatic presentation spawned by computer; SAGA II was probably the first [Oct 26].

Lansdown gave the first performance of his “Theatrical Sword Fight" which used another machine to produce the fight's moves, including commands such as “thrust”, and “cut to”. There were no reports of any deaths, as far as I know.

Philip Hodgetts’ "Light Sound Structure" was a 3D lattice of bulbs that lit up in a programmed sequence, accompanied by sounds affected by changes in the ambient light levels.

Brewer Hatcher’s "Programmed Sculpture" were a series of sculptures on display in the foyer of the show which he'd built by following instructions output by a computer.

Several digital artworks from the US were due to appear but were held up at the UK Customs. These included Ken Knowlton [Feb 28] and Leon Harmon’s rather risqué “Studies in Perception” (1966).

During the 1970's, CAS exhibitions were held at several conference and trade shows,

including Computer Graphics ’70, and Datafairs ’71 and ’75.

TRS-80 Model 100

March 29, 1983

RadioShack [Feb 2] introduced the Tandy TRS-80 Model 100, the first successful portable computer, and the precursor to a whole new class of computer, the laptop. However, the first ever laptop was probably the Epson HX-20 [Nov 18] from 1981.

The Model 100 measured just 8.5" x 12" x 2", weighed about four lbs., and ran on four AA alkaline batteries for about 20 hours.

It featured a 2.4 MHz Intel 80C85 processor, 8 to 24 KB of RAM, a full-sized keyboard, an eight-line, forty column LCD, a built-in 300-baud modem, parallel and serial ports, and a cassette tape interface. It came with several applications that took up just 32 KB of ROM, including an address book, Microsoft BASIC, a telecommunications package, and a text editor.

A TRS-80 Model 100 displaying the Y2K bug. Photo by NapoliRoma.

The firmware was the last project where Bill Gates [Oct 28] was one of the primary programmers (there was a team of two, the other person being Jev Suzuki. from Japan). Gates later reminisced "Part of my nostalgia about this machine is this was the last one where I wrote a very high percentage of the code. I did all the design and debugging along with Jey. And it is a cool user interface, because although most of the code is a BASIC interpreter, we did this little file system where you never had to think about saving anything."

The Model 100 became highly successful, especially among journalists who loved the keyboard, modem, and communications software. This meant they could write a story while on assignment, and file it from any telephone.

The Model 100 shouldn't be confused with the TRS-80 Model 1, better known as the “Trash-80” [Aug 3]. Among enthusiasts and collectors, the 100 is often referred to as the "Model T".

MORF

March 29, 1993

The MORF system was developed by Tom Brigham and Douglas Smythe at Industrial Light and Magic (ILM [Sept 12]) to simplify the digital morphing of high-resolution images. It proved so innovative that they were awarded a Technical Achievement Oscar for their work on this day.

MORF was first employed in Ron Howard’s 1988 movie, Willow, to turn a goat into an ostrich, then a peacock, a tortoise, a tiger, and finally a human.

It was soon being utilized in scores of movies, although Tom Brigham noted that when he first proposed the idea, he found it very hard to persuade people that morphing was useful: “The only reaction I used to get was a total blank stare, like ‘Huh?’”

Ghost in the Shell

March 29, 1996

Manga Entertainment released the anime film “Ghost in the Shell” in the US. It was directed by Mamoru Oshii, featured the voices of Mimi Woods and Richard Epcar, and was based on the celebrated “Ghost in the Shell” manga by Masamune Shirow. It went on to become the first anime to attract mainstream audiences.

It was also notable for being only the second movie (after “Macross Plus” from 1995) to blend traditional and computer generated animation.

It was remade as a live-action movie in 2017, directed by Rupert Sanders and starring Scarlett Johansson.

Koomey’s Law Published

March 29, 2010

Koomey’s law (by Jonathan Koomey, a professor of civil and environmental engineering at Stanford) describes a long-term hardware trend: that the number of computations per joule of energy dissipated has been doubling approximately every 1.57 years.

Another way of saying this is that the energy efficiency of computers doubles roughly every 18 months.

This tendency has been remarkably stable since the 1950's, although it's slowed in the 2010's.

Koomey’s law shouldn't be confused with the better known Moore’s Law [April 19] which states that processing power doubles every 18 to 24 months. One difference is that energy efficiency improvements can be mapped to Koomey’s scale even before the invention of the transistor [Dec 16].