Isaac Asimov (Исаак Азимов)

Born: Jan. 2, 1920;

Petrovichi, Russian
Died: April 6, 1992

One of the "Big Three" sci-fi authors of the 1950's and 1960's (the others being Robert A. Heinlein and Arthur C. Clarke [Dec 16]). Asimov's most famous works are probably the "Foundation" and the "Robot" series. He was also a professor of biochemistry at Boston University.

Isaac Asimov (1959). Photo by Phillip Leonian. New York World-Telegram and Sun.

He coined the word 'Robotics' in the story "Liar!" published in the May 1941 issue of *Astounding Science Fiction*. The "Three Laws of Robotics" were first mentioned in the March 1942 story, "Runaround", supposedly as an extract from the "Handbook of Robotics", 56th Edition, 2058. Asimov later claimed that they originated in a conversation with his editor, John W. Campbell , on Dec. 23 1940.

Asimov's main contribution to computer-related sci-fi was his collection of around twenty short stories concerning the Multivac, named after the UNIVAC 1 [March 31]. Asimov rated the 1956 story "The Last Question" from that series as his favorite.

He also invented the word "microcomputer," in his short story "The Dying Night" published in *The Magazine of Fantasy and Science Fiction* in July 1956.

Asimov became a spokesman for RadioShack [Feb 2] at the start of the 1980's, and was given a TRS-80 Model II [Aug 3], and (temporarily) a RadioShack technician to set it up. However, he remained loyal to his manual typewriter for composing first drafts.

Asimov identified Carl Sagan [Jan 10] as one of only two people he ever met whose intellect surpassed his own; the other being Marvin Minsky [Aug 9].

Robert John Lansdown

Born: Jan. 2, 1929;

Cardiff, Wales
Died: Feb. 17, 1999

Lansdown pioneered the application of computer graphics to architecture, and promoted their wider use across the arts. In 1963 he utilized an Elliott 803 [Oct 00] to model a new building's lifts and services, and to plot the annual variations in daylight across the site. He also authored several CAD tools for creating perspective drawings.

He was one of the founders of the "Computer Arts Society" (CAS), and its secretary from 1968 to 1991. In that role, he organized one of the first computer art exhibition, "Event One," [March 29] at the Royal College of Arts (1969), held a few months after "Cybernetic Serendipity" [Aug 1].

In 1969, he co-founded System Simulation Ltd, which went on to produce pioneering computer animation work for TV and films. For example, the company contributed visuals for the flight deck displays on the Nostromo spacecraft in the movie Alien (1979).

His "Not only Computing - also Art" series of articles in *Computer Bulletin* (1980-1992), published by the British Computer Society [Oct 14] introduced readers to subjects as diverse as polyhedra, Heavy Metal, uncertainty, Chaos Theory, and Celtic art. They resulted in him sometimes being called the British "Martin Gardner" [Oct 21]. Amazingly, unlike Gardner's work, his articles have never been collected and reprinted, but are online at http://computer-arts-society.com/computer-bulletin

As a youth, he was a prize-winning pianist at an Eisteddfod (a Welsh festival of literature and music, dating from the 12th Century), but never received the prize since he'd already left, disgusted with what he considered a very poor performance.

The Rapid Arithmetical Machine

Jan. 2, 1936

Vannevar Bush [March 11] presented the paper, "Instrumental Analysis," at the American Mathematical Society. He surveyed analog and digital calculating devices, including several references to Charles Babbage's [Dec 26] work and in particular to the collection of papers published by Babbage's son (1889). He also discussed how it might be possible to convert a set of punched-card machines into something similar to the Analytical Engine [Dec 23].

Bush began converting his ideas into physical reality via his "Rapid Arithmetical Machine" project. Sadly there's little information about what was achieved. Bush's designs were documented in a series of memoranda written during 1937 and 1938 but, despite

extensive searches by historians, they've never been found. A memo from Bush dated 1940 reviews progress on the machine and estimates that it would be able to multiply two six-decimal digit numbers in 0.2 seconds.

BASIC for MITS
Jan. 2, 1975

Next: [April 4]

Bill Gates [Oct 28] and Paul Allen [Jan 21] wrote a letter to MITS (Micro Instrumentation and Telemetry Systems) in Albuquerque, offering the company a BASIC interpreter for their Altair 8800 [Dec 19]. At the time, Gates and Allen didn't have an Altair, and no software capable of running on one.

They never heard back, so Gates phoned MITS president Ed Roberts [Sept 13] from his dorm phone at Harvard. Gates had become a student there in the fall of 1973.

Roberts agreed to meet them to see a demo in March, and over the course of six frantic weeks they wrote the promised interpreter.

It was done in two stages. First Allen coded a PDP-10 program that emulated the Altair's Intel 8080 microprocessor [April 18]. Fortunately, the duo still had their Intel 8008 [April 00] emulator from their Traf-O-Data days [July 00]. Allen adapted it based on the Altair programmers guide, with the help of information gleaned from Adam Osborne's [March 6] book on the 8080.

Gates ran the emulator on the DEC PDP-10 in Harvard's computing center, and wrote the BASIC interpreter to run on top of it. He was assisted by another Harvard man, Monte Davidoff. who implemented many of the math routines. However, most of his code only made it into the later expanded 8 KB version of BASIC.

Gates' BASIC packed a lot of features into a very small space

(4 KB), and was fast. He recalled in 2001: "Of all the programming I've done, it's the thing I'm most proud of."
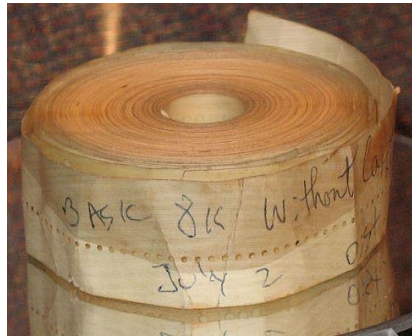
An original copy of 8 KB Altair BASIC. Photo by Michael Holley.

On the flight down to MITS's offices in Albuquerque in March, disaster almost struck. Allen realized that they'd forgotten to write a bootstrap program to read the tape containing the interpreter into memory on an Altair. Allen implemented the software (in 8080 machine code) before the plane landed.

Amazingly, the demonstration was a success, and resulted in a deal for MITS to distribute the interpreter as Altair BASIC. The contract was the first time Gates and Allen referred to themselves as a company, spelled in the paperwork as "Micro-Soft."

The first advert for Altair BASIC appeared on [April 7] in the MITS Altair newsletter, "Computer Notes."

Software Arts
Jan. 2, 1979

"Software Arts" was incorporated by Dan Bricklin [July 16] and Bob Frankston [June 14] while they were developing VisiCalc [May 11] [Oct 19], although VisiCalc itself was published by Dan Fylstra's [March 26] "Personal Software Inc." In early 1982, Personal Software became VisiCorp, to better match the various "Visi-" named products (e.g. VisiOn [Dec 16]) that it was selling.

Inevitably, the relationship between Software Arts and VisiCorp soured, leading to legal

battles in 1983-84, with Software Arts winning back the name "VisiCalc" but VisiCorp retaining "Visi".

In 1983 *InfoWorld* magazine estimated that Software Arts was the world's 13th-largest microcomputer software company, with annual sales of $12 million. Part of this was due to its TK!Solver application for mathematical modeling and algebraic equation solving.

Success was a fickle mistress though: when Lotus Development launched Lotus 1-2-3 [Jan 26] in 1983, VisiCalc sales began to wither. Lotus purchased the company in the spring of 1985, and promptly stopped selling VisiCalc, and sold off (or renamed) Software Arts' other products.

Rose Bowl Hacking
Jan. 2, 1984

At the 70th Rose Bowl football game, the UCLA Bruins defeated the Illinois Fighting Illini by 45-9. Meanwhile, two miles away on a hill overlooking the stadium, Caltech students, Dan Kegel and Ted Williams, had gained control of the scoreboard via a microcomputer attached to the display.

They set it to display the message "Go CIT" along with a graphic of two CalTech beavers. This went largely unnoticed, so in the final quarter they changed the team names on the board to CalTech and MIT. Unable to figure out what was happening, officials shut down the scoreboard, with 'CalTech' leading 'MIT' 38 to 9.

A few days later, the hackers contacted the Rose Bowl officialdom to offer remove their 'modifications'. Instead the bureaucrats spent $1200 having the scoreboard checked out.

Kegel's work later earned him academic credit in the course "Experimental Projects in Electrical Circuits" taught by Stanley H. Bacon. At the time, Bacon was under the impression that Kegel's "Bulletin Board

Control" project was for stock trading.

Wired
Jan. 2, 1993

Wired magazine, touting itself as "The *Rolling Stone* of Technology," debuted at the Macworld conference, although the first issue, Wired 1.01, was only published in March.

The magazine was founded by Louis Rossetto, Jane Metcalfe, and Ian Charles Stewart. The founding executive editor, Kevin Kelly, was a former editor of the Whole Earth Catalog and the Whole Earth Review [Dec 14]. The venture claimed media theorist Marshall McLuhan as its patron saint.

Rossetto originally wanted to call the magazine "DigIt" – as in either ''digit'' or ''dig it'' – but Metcalfe talked him out of that choice.

Apart from being cool, *Wired* also created the world's first commercial web magazine, *HotWired*, which launched on [Oct 27] 1994. *HotWired* turned out to be a particularly effective way of losing money.

During the 21st Century, the magazine became somewhat more mainstream especially under its new owners, Condé Nast, and a new editor-in-chief Chris Anderson. Anderson remarked: "We banned Burning Man and drug culture and the letters TCP/IP" [Sept 9]. Nevertheless, *Wired* did popularize the term 'The Long Tail' and coined the phrase 'crowdsourcing' in its June 2006 issue. On Dec. 14, 2009, it was named "Magazine of the Decade" by Adweek.

Some Cyberpunks argue that *Wired* was only possible because of *Mondo 2000* [March 20] and its precursors.