Donald Lewis Shell

Born March 1, 1924, Worth Township, Sanilac County, Mich.; inventor of the sorting method that bears his name.

Education: BS, Michigan Technological University, 1944; MS, University of Cincinnati, 1951; PhD, mathematics, University of Cincinnati, 1959.

Professional Experience: instructor, mathematics, Michigan Technological University, 1946-1949; General Electric Co.: mathematician, 1951-1952, numerical analyst, 1952-1953, supervisor, Systems Analysis & Synthesis, 1953-1954, manager, Computer Technology Development, 1954-1956, manager, Evendale Computing, 1956-1957, computer consultant specialist, 1957-1959, manager, Digital Analysis & Computing, Knolls Atomic Power Laboratory, 1960-1961, engineering mathematician, Advance Technology Laboratory, 1961-1963, manager, Computing Applications & Processing Telecommunications & Information Processing Operations, 1963-1966, manager, Information Service Department, 1966-1968, manager, Automation Studies, Research & Development Center, 1968-1969, manager, Information Services Quality Assurance, 1971-1972; Robotics Inc.: chairman of the board and general manager, 1972-1975, manager, File Systems, 1975-1976, manager, Technical Systems, 1976-1978, manager, Application Systems, 1978-1980; manager, Mark II Systems, General Electric Information Services Company, 1980-present.

UPDATES

From Wikipedia, the free encyclopedia (2012):

He acquired his Ph.D. in Mathematics from the University of Cincinnati in 1959, after publishing the shell sort algorithm in the Communications of the ACM in July the same year.

After acquiring the B.S. from Michigan Technological University, he went into the Army Corps of Engineers, and from there to the Philippines to help repair damages during World War II. When he returned after the war, he married Alice McCullough and returned to Michigan Technological University, where he taught mathematics. After, he moved to Cincinnati, Ohio, and worked for General Electric's engines division, where he developed a convergence algorithm and wrote a program to perform performance cycle calculations for aircraft jet engines. He also went to the University of Cincinnati, where in 1951 he acquired a M.S. in mathematics and, in 1959, acquired his Ph.D. in Mathematics. In July of that year he published the shell sort algorithm and "The Share 709 System: A Cooperative Effort". In 1958, he and A. Spitzbart had published "A Chebycheff Fitting Criterion".

Although he is most widely known for his shell sort algorithm, his Ph.D. is also considered by some to be the first major investigation of the convergence of infinite exponentials, with some very deep results of the convergence into the complex plane. This area has grown considerably and research related to it is now investigated in what is more commonly called Tetration.

After acquiring his Ph.D., Shell moved to Schenectady, New York, to become Manager of Engineering for General Electric's new Information Services Department, the first commercial enterprise to link computers together using the client–server architecture. In October 1962 he wrote "On the Convergence of Infinite Exponentials" in the *Proceedings of the American Mathematical Society*. He worked with John George Kemeny and Thomas Eugene Kurtz to commercialize the Dartmouth Time-Sharing System in 1963.

In 1971 Shell wrote "Optimizing the Polyphase Sort" in the *Communications of the ACM*, and in 1972 he joined with a close friend and colleague, Mr. Ralph Mosher (who designed the walking truck), to start a business called Robotics Inc. where he was the General Manager and chief software engineer. Four years later, in 1976, they sold the company and Shell returned to General Electric Information Services Corporation.