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Jay W. Forrester, Professor Emeritus of Management, at the Massachusetts Institute of Technology, directed the System Dynamics Program in the MIT Sloan School of Management until 1989. The field of system dynamics has developed since 1956 under Professor Forrester's leadership to evaluate how alternative policies affect growth, stability, fluctuation, and changing behavior in corporations, cities, and countries.

In 1956, Forrester became professor of management at the MIT Sloan School of Management. There he applied his background in computer sciences and engineering to the development of computer modeling and analysis of social systems leading to a field now known as "system dynamics." In recent papers, Professor Forrester has described a new kind of computer simulation model for examining the economic forces underlying inflation, unemployment, business cycles, and causes of the great depressions. He is also introducing system dynamics and learner-centered learning as a basis for a more effective kindergarten through 12th grade education.

Professor Forrester's first major book in the system dynamics field, Industrial Dynamics (Pegasus Communications, Waltham, MA, 1961), presented a new philosophy and method of business analysis. It was followed by Principles of Systems (Pegasus Communications, 1968) and Urban Dynamics (Pegasus Communications, 1969). Urban Dynamics, which received the eleventh Annual Publication Award of the Organization Development Council of New York in 1970, presented a theory of urban interactions and identified reasons for the failures of past policies and proposed new policies for urban revival. In his fourth book, World Dynamics (Pegasus Communications, 1971, second edition, 1973), he applied system dynamics to interactions of population, industrialization, agriculture, resources, and pollution on a global scale. His fifth book, Collected Papers (Pegasus Communications, 1975) brings together articles on the dynamics of social systems.

Professor Forrester was director of the MIT Digital Computer Laboratory from 1946 to 1951 and was responsible for the design and construction of Whirlwind I, one of the first high-speed computers.

While working on computer technology, Professor Forrester invented, and holds the basic patent for, random-access, coincident-current magnetic memory which was for many years the standard memory device for digital computers.

He was head of the Digital Computer Division of MIT's Lincoln Laboratory from 1952 to 1956 where he guided the planning, technical design, and implementation of the Air Force SAGE (Semi-Automatic Ground Environment) system for continental air defense, the most extensive early application of digital computer technology.

A native of a cattle ranch near Arnold, Nebraska, Professor Forrester received the B.S. degree in electrical engineering from the University of Nebraska in 1939 and in 1945 the S.M. degree in electrical engineering from MIT. He has been awarded honorary doctorate degrees in engineering from the University of Nebraska, Newark College of Engineering, and the University of Notre Dame; in science from Boston University and Union College; and in political science from the University of Mannheim (Germany), in Humane Letters from the State University of New York; in philosophy from the University of Bergen, Norway; and honoris causa, Universidad de Sevilla, Spain.

Professor Forrester's work and his books have brought him numerous national and international awards and honors. He received the Inventor of the Year Award from George Washington University (1968); the Valdemar Poulsen Gold Medal from the Danish Academy of Technical Sciences (1969); the Medal of Honor (1972) and the Systems, Man, and Cybernetics Society Award for Outstanding Accomplishment (1972), both from the Institute of Electrical and Electronics Engineers; the New England Award (1972) of the Engineering Societies of New England; the Howard N. Potts Award (1974) from The Franklin Institute; Honorary Membership in the Society of Manufacturing Engineers (1976); the Harry Goode Memorial Award of the American Federation of Information Processing Societies (1977); and the Information Technology Leadership Award for Lifetime Achievement, Computerworld Smithsonian Awards (1998). Professor Forrester was inducted into the National Inventors Hall of Fame (1979); received the Commonwealth Award of Distinguished Service (1979); and the Computer Pioneer Award from the IEEE Computer Society (1982).

He was honored by Thomas J. Watson, Jr., who endowed the Jay W. Forrester Chair of Computer Studies at MIT (1986); and received the James R. Killian Faculty Achievement Award, Massachusetts Institute of Technology (1987). In 1989, he received the National Medal of Technology from President Bush.

Professor Forrester is a member of the National Academy of Engineering, and a Fellow of the Institute of Electrical and Electronics Engineers, the Academy of Management, the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and a Benjamin Franklin Fellow of the Royal Society of Arts (London).

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