Computer Science in the Information Age
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Abstract

The last forty years have seen computer science evolve as a major academic discipline. Today the field is undergoing a major change. Some of the drivers of this change are the internet, the world wide web, large quantities of information in digital form and wide spread use of computers for accessing information. This change is requiring universities to revise the content of computer science programs. This talk will cover the changes in the theoretical foundations needed to support information access in the coming years.

Biography

John E. Hopcroft is the IBM Professor of Engineering and Applied Mathematics in Computer Science at Cornell University. From January 1994 until June 2001, he was the Joseph Silbert Dean of Engineering. After receiving both his M.S. (1962) and Ph.D. (1964) in electrical engineering from Stanford University, he spent three years on the faculty of Princeton University. He joined the Cornell faculty in 1967, was named professor in 1972 and the Joseph C. Ford Professor of Computer Science in 1985. He served as chairman of the Department of Computer Science from 1987 to 1992 and was the associate dean for college affairs in 1993. An undergraduate alumnus of Seattle University, Hopcroft was honored with a Doctor of Humanities Degree, Honoris Causa, in 1990. Hopcroft’s research centers on theoretical aspects of computing, especially analysis of algorithms, automata theory, and graph algorithms. He has coauthored four books on formal languages and algorithms with Jeffrey D. Ullman and Alfred V. Aho. His most recent work is on the study of information capture and access. He was honored with the A. M. Turing Award in 1986. He is a member of the National Academy of Engineering and a fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, the Institute of Electrical and Electronics Engineers, and the Association of Computing Machinery. In 1992, he was appointed by President Bush to the National Science Board, which oversees the National Science Foundation, and served through May 1998. From 1995-98, Hopcroft served on the National Research Council’s Commission on Physical Sciences, Mathematics, and Applications. In addition to these appointments, Hopcroft serves as a member of the Scientific Advisory Committee for the David and Lucile Packard Fellowships in Science and Engineering, the Nominating Committee for the National Academy of Engineering, and the Board on Mathematical Sciences and Applications. He chairs the International Advisory Committee on Informatics and Engineering at the National College of Ireland.