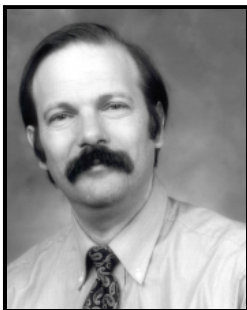




Events

[Current Events](#)[Lectures](#)[Events Archive](#)

IT Eminent Lecture Series

And Logic Begat Computer Science: When Giants Roamed the Earth

Moshe Y. Vardi, Rice University

Director, Computer and Information Technology Institute

Howe Russell Geoscience Complex 130E

June 11, 2007 - 03:00 pm

Abstract:

During the past fifty years there has been extensive, continuous, and growing interaction between logic and computer science. In fact, logic has been called "the calculus of computer science". The argument is that logic plays a fundamental role in computer science, similar to that played by calculus in the physical sciences and traditional engineering disciplines. Indeed, logic plays an important role in areas of computer science as disparate as architecture (logic gates), software engineering (specification and verification), programming languages (semantics, logic programming), databases (relational algebra and SQL), artificial intelligence (automated theorem proving), algorithms (complexity and expressiveness), and theory of computation (general notions of computability). This non-technical talk will provide an overview of the unusual effectiveness of logic in computer science by surveying the history of logic in computer science, going back all the way to Aristotle and Euclid, and showing how logic actually gave rise to computer science.

Speaker's Bio:

Moshe Y. Vardi is the George Professor in Computational Engineering and Director of the Computer and Information Technology Institute at Rice University. He chaired the Computer Science Department at Rice University from January 1994 till June 2002. Prior to joining Rice in 1993, he was at the IBM Almaden Research Center, where he managed the Mathematics and Related Computer Science Department. His research interests include database systems, computational-complexity theory, multi-agent systems, and design specification and verification. Vardi received his Ph.D. from the Hebrew University of Jerusalem in 1981. He is the author and co-author of over 300 technical papers, as well as two books, "Reasoning about Knowledge" and "Finite Model Theory and Its Applications", and the editor of several collections. Vardi is the recipient of three IBM Outstanding Innovation Awards, a co-winner of the 2000 Goedel Prize, a co-winner of the 2005 ACM Paris Kanellakis Award for Theory and Practice, and a co-winner of the LICS 2006 Test-of-Time Award. He holds honorary doctorates from the University of Saarland, Germany, and the University of Orleans, France. Vardi is an editor of several international journals and the president of the International Federation of Computational Logicians. He is Guggenheim Fellow, as well as a Fellow of the Association of Computing Machinery, the American Association for the Advancement of Science, and the American Association for Artificial Intelligence. He was designated Highly Cited Researcher by the Institute for Scientific Information, and was elected as a member of the US National Academy of Engineering, the European Academy of Sciences, and the Academia Europea. He recently co-chaired the ACM Task Force on Job Migration.

This lecture has a reception.

