



Howard Shrobe



Dr. Howard Elliot Shrobe is a Principal Research Scientist in the MIT Computer Science and Artificial Intelligence Laboratory. He received his Bachelor's of Science degree from Yale College in Mathematics in 1968, and his Master's and PhD in Computer Science from MIT in 1975 and 1978 respectively. He joined the MIT Artificial Intelligence Laboratory as a Research Scientist in 1978 and was promoted to Principal Research Scientist in 1980.

From 1982 - 1989 he served as a Technical Director of Symbolics Incorporated, a spinoff from the Artificial Intelligence Laboratory that produced Lisp Machine computers and development environments. From 1989 - 1992 he served as Vice President of Technology at Symbolics, following which he returned to a full-time appointment at the Artificial Intelligence Laboratory.

From 1994 - 1997, Dr. Shrobe served at the Defense Advanced Research Projects Agency (DARPA). He was Chief Scientist of the Software and Intelligent Systems Technology Office from 1994 - 1995 and then was Chief Scientist and Assistant Director of the Information Technology Office from 1995 - 1997. While at DARPA Dr. Shrobe initiated and led the Evolutionary Design of Complex Software program as well as the Information Survivability program.

Dr. Shrobe then returned to MIT, serving as the Associated Director of the Artificial Intelligence Laboratory From September 1997 - Dec 2000. While at MIT, Dr. Shrobe has participated in several Cyber Security research projects such as DARPA's Intrusion Tolerant Systems program, the OASIS program, the Self-Regenerative Systems and IARPA's NICECAP program. He has participated in and helped to organize several recent workshops on Cyber Security.

Dr. Shrobe's research has focused on the use of novel computer architectures and Artificial Intelligence techniques to enhance Cyber-security and survivability. These include the TIARA computer architecture (a predecessor of the research being conducted in the current consortium) and the AWD RAT survivability system. He has published several papers on these subjects.

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