

Biography

V.A. Shiva Ayyadurai, Ph.D.

V.A. Shiva Ayyadurai, the inventor of email and polymath, is a world-renowned systems scientist, inventor and entrepreneur. He is a Fulbright Scholar, Lemelson-MIT Awards Finalist, India's First Outstanding Scientist and Technologist of Indian Origin, Westinghouse Science Talent Honors Award recipient, and a nominee for the U.S. National Medal of Technology and Innovation. His love of medicine and complex systems began in India when he became intrigued with medicine at the age of five as he observed his grandmother, a farmer and healer in the small village of Muhavur in South India, apply Siddha, India's oldest system traditional medicine, to heal and support local villagers. These early experiences inspired him to pursue the study of modern systems science, information technology and eastern and traditional systems of medicine to develop an integrative framework linking eastern and western systems of medicine.

In 1978, as a precocious 14-year-old, after completing a special program in computer science at the Courant Institute of Mathematical Science at NYU, Ayyadurai was recruited by the University of Medicine and Dentistry of New Jersey (UMDNJ) as a Research Fellow, where he developed the first electronic emulation of the entire interoffice mail system (Inbox, Outbox, Folders, Address Book, Memo, etc.), which he named "EMAIL," to invent the world's first email system, resulting in him being awarded the first United States Copyright for *Email, Computer Program for Electronic Mail System*, at a time when Copyright was the only protection for software inventions.

Ayyadurai went on to receive four degrees from MIT, including a bachelors in electrical engineering and computer science, and a dual master's degree in mechanical engineering and visual studies from the MIT Media Laboratory. In 2003, he returned to MIT to complete his doctoral work in systems biology within the Department of Biological Engineering, where he developed CytoSolve[®], a scalable computational platform for modeling the cell by dynamic integration of molecular pathways models. Following his doctoral work, he returned to India on a Fulbright, where he discovered the systems theoretic basis of eastern systems of medicine, resulting in Systems Health[®], a new educational program that provides a scientific foundation of integrative medicine. While at MIT, he also developed a pioneering new course called Systems Visualization which integrates systems theory, narrative story telling, metaphor and data visualization to provide visualization of complex systems.

Today, he is the Chairman & CEO of CytoSolve, Inc. CytoSolve provides a revolutionary platform for modeling complex diseases as well as for discovering multi-combination therapeutics. His recent efforts at CytoSolve have led to an FDA allowance and exemption for a multi-combination drug for pancreatic cancer, development of innovative nutraceutical products, as well as numerous industry and academic partnerships. Ayyadurai's earlier research on pattern recognition and large-scale systems development also resulted in multiple patents, numerous industry awards, commercial products such as EchoMail, and scientific and industry publications. He serves as Executive Director of the International Center for Integrative Systems, a non-profit research and education foundation, located in Cambridge.

He has started and successfully several start-up companies. Following his winning of a White House competition to automatically analyze and sort mail President Clinton's email, Ayyadurai started EchoMail, Inc. which grew to nearly \$200 million in market valuation. He has appeared in *The MIT Technology Review*, *The Wall Street Journal*, *New York Times*, *NBC News*, *USA Today* and other major media. Shiva was named Top 40 in the *Improper Bostonian*. He has also authored four books on the Internet and EMAIL: *Arts and the Internet*, *The Internet Publicity Guide*, *The Email Revolution*, and *Systems Health* which will be coming out in 2015. Ayyadurai continues his passion for entrepreneurialism as Managing Director of General Interactive, a venture fund that incubates, mentors and funds new startups in various areas including rural healthcare, media, biotechnology, information technology, to name a few. He has also started Innovation Corps to fuel innovation among teenagers worldwide. He serves as a consultant to CEOs and Executive Management at Fortune 1000 companies, as well as government organizations such as the United States Postal Service, Office of Inspector General.

Ayyadurai is a member of Sigma-Xi, Eta Kappa Nu and Tau Beta Pi. He supports the Shanthi Foundation, which raises money to provide scholarships for education of orphaned girls. He is also a supporter of various arts and non-profit organizations including the Guggenheim Museum, Very Special Arts, National Public Radio and the National Geographic Society. Ayyadurai lives in Belmont, Massachusetts and enjoys yoga, tennis, animals, art and architecture. He also enjoys traveling with actress Fran Drescher with whom he held a spiritual ceremony on September 7, 2014 to celebrate their growing friendship.