

Summary

- Technology Executive with 30+ years of professional experience and an established track record of choosing, helping define and deploying winning technologies at an early stage.
- Successfully planned and deployed novel broadband access networks.
- Took the pioneering OLPC XO-1 laptop from concept to delivery, helping to solidify 1-to-1 computing in education and create the market for “netbooks.”
- Proven track record of team building in a variety of contexts, ranging from R&D labs, to product development and startup founding teams.
- Extensive Internet systems architecture, design and operation experience.
- Successful entrepreneur and accomplished public speaker engaged in a variety of civic-minded activities.

Experience

MIT Media Lab, Cambridge, MA **Director of Computing, Research Scientist** **January 1996 – Present**

Manages the group responsible for the design, installation, operation and maintenance of the laboratory's extensive networking and computing infrastructure, keeping the Media Lab at the forefront of technology developments by ensuring that the latest relevant technologies are deployed at the Media Lab in the most cost-effective manner.

Currently working on cost-efficient AI / Machine Learning infrastructure as well as on the societal implications of AI.

- Worked on methods and technology to provide broadband connectivity in underserved areas.
- Designed, procured and deployed the lab's HPC cluster, which is mainly used for AI/Machine Learning model development and training.
- Worked with IS&T on a jointly managed network infrastructure.
- Rearchitected the lab's datacenters around virtualization and distributed Ethernet switching.
- Contributed to the design and implementation of “Glass Infrastructure”, a novel, interactive, personalized wayfinding system aiming to enhance collaboration between research groups and Media Lab sponsors.
- Implemented new state-of-art wireless infrastructure
- Moved the Lab's internal video production to High Definition implementing a fiber SDI video distribution network.
- Installed one of the first building-wide Wireless Local Area Networks using early pre-802.11 equipment and migrated the lab from anchored workstations to un-tethered laptops.
- Played an active hands-on and advisory role in 4 startups, all of which still exist today.
- Provided always-on and broadband connectivity for the homes of the lab's researchers before its commercial availability by designing and installing the necessary “access cloud” infrastructure. Moved the cloud's

architecture from ISDN, to locally terminated DSL to outsourced frame-relay DSL to point-to-multipoint unlicensed spectrum TDD radios. The same infrastructure was used to connect the lab's remote sites resulting in great overall savings.

- Installed one of the first Wireless LAN Voice over IP systems and worked with Nortel on a large scale VoIP system for the lab's satellite offices.
- Conducted field research focusing on providing Internet connectivity to underserved areas using low-cost off-the-shelf equipment. Designed and installed a broadband access network covering the remote island of Patmos, Greece making it the first place in Greece with broadband connectivity available to consumers.
- Worked with lab sponsor Nortel on their Wireless Mesh product and performed alpha testing of the product on MIT's campus.
- Worked on the telecommunications of the LINCOS (little intelligent communities), which brought self-contained digital community centers (built inside old shipping containers) to remote communities in Costa Rica. Worked with Tachyon and its early 2-way satellite internet terminal.
- Established the lab's video webcasting service, making the Media Lab one of the first organizations to offer its sponsors access to events over the Internet.
- Taught an introductory freshman seminar on computer and network security, which was oversubscribed every year.

Hellenic Telecommunications Organization (OTE S.A.) Member of the Board of Directors June 2010 – September 2013

Hellenic Telecommunications Organization (OTE S.A.) is the largest telecommunications provider in Greece, and together with its subsidiaries forms one of the leading telecom groups in Southeastern Europe. OTE is among the five largest listed companies, with respect to capitalization, in the Athens Stock Exchange.

- Played a pivotal role in engineering a very successful senior management succession in 2010.
- During board tenure, OTE dramatically improved its financial health and overall performance and was able to successfully regain access to the international capital markets.
- OTE was a leader in Greece's recovery with an exceptional performance amidst the financial crisis.

One Laptop per Child, Cambridge, MA Founding Member, Chief Connectivity Officer, VP Advanced Technology February 2006 – January 2009 (on leave from MIT Media Lab)

Founding member of the core design and engineering team of OLPC's XO laptop. Began work on the laptop design while at the MIT Media Lab in 2005 and made defining contributions to its hardware and software architecture (embedded mesh, power management, motherboard architecture) and its industrial design (rabbit ears). The XO-1 laptop is being generally credited as the patriarch of the "Netbook" category that transformed the personal computing industry. Acted as a public face for the project, helping to successfully sell the concept to sponsors, partners, users and the general public. Minimized direct development costs through partner engagement and collaboration.

- Responsible for the laptop's wireless networking subsystem. Defined the unique high level architecture of the XO's embedded layer-2 mesh networking layer and co-designed its implementation, which Marvell carried out at no cost to OLPC. Defined the OS level interfaces as well as diagnostic hooks and tools. Oversaw the implementation and its integration with the Linux kernel driver and performed a variety of validation and compatibility testing. Findings of that work were contributed and incorporated in the 802.11s draft standard.

- Designed and created prototypes of low cost connectivity peripherals (“active antenna” and “solar repeater”), currently the world’s smallest WiFi mesh nodes. Provided early stage NRE funds to startups that create connectivity equipment complementary to the XO (Meraki, Green-WiFi). Defined a low cost server architecture based on an ARM System on a Chip (SoC).
- Spearheaded the creation of the open 802.11s project which resulted in the first open source 802.11s-compliant mesh networking stack. The resulting code is already included in the current mainstream Linux kernel and commercial mesh networking products.
- Actively recruited and managed OLPC’s relationship with sponsors. Worked with the LATU team in Uruguay in devising a realistic plan to get all the XOs in Uruguay connected to the Internet via their school’s internet connectivity as well as on ways to get that school connectivity extended to the local community.
- Interfaced with telcos and equipment providers and arranged for pilot deployment connectivity.
- Enabled dual boot (Linux and Windows) capabilities on the laptop working with the Open Firmware developer to add PC BIOS support and interfaced with Microsoft at the technical level.
- Implemented OLPC’s network infrastructure.

Velti S.A., Athens, Greece
Founder and Vice-Chairman of the Board
September 2000 – December 2006

Velti was a leading player in the mobile marketing space with multinational presence. It was the first Greek technology company to complete a successful IPO on London’s AIM stock exchange followed by a successful IPO on NASDAQ in 2011.

- Co-founded the company and participated in its business plan evolution.
- Oversaw its successful transformation from a B2B electronic marketplace integrator to a mobile value-added services provider.
- Recruited employees and investors for Velti.
- Worked on Velti’s Internet server infrastructure.

AWARE Inc., Bedford, MA
Systems Engineer
January 1993 – December 1995

- Worked on the development of the company’s ADSL technology and implemented an IP over ADSL testbed.
- Responsible for the design of parallel DSP algorithms and their implementation on INTEL distributed memory parallel supercomputers.
- Responsible for all aspects (design, purchasing, implementation, operation) of the company’s complex heterogeneous network.

ATKO Computer Systems S.A., Thessaloniki, Greece
Support Engineer / Developer
January 1987 – May 1990

- Responsible for the Northern Greece Region, won maintenance contracts with large clients.
- Systems integration, applications support, system utilities programming.
- Database Application Development.
- Hardware Installation, maintenance and repair.

Education

Aristotle University of Thessaloniki, Thessaloniki, Greece
Electrical Engineering Degree, October 1989.
Concentration on Computers and Electronics.

Boston University, Boston, MA
Master of Science in Computer Engineering, May 1991
Concentration on Parallel Computing

Selected Keynote Presentations

- A Brief History of Computational Thinking at the Media Lab, eTwinning Thematic Conference, Athens, September 2017
- Ubiquitous Connectivity for Ambient Intelligence, European Conference on Ambient Intelligence, Athens, November 2015
- Complexity and the Cloud: Where is my data?, ECIS.eu Symposium, Brussels, April 2013
- Developing, evolving and using a mesh network stack: the XO-files, IEEE MeshTech 2010, San Francisco, November 2010
- A brief history of One-Laptop-Per-Child (OLPC) and what I learned from it, E-Learning 2009, Berlin, September 2009
- "Mesh(y) Communications" IEEE Consumer Communications and Networking Conference, Las Vegas, January 2008
- "OLPC Foundation", Defense Security Innovation, Quebec, Canada, November 2007
- "One Laptop per Child", Deloitte Executive Forum: Disruptions 2007, Athens Greece, November 2007
- "Technology as a driver for radical change in the world", Powerful Ideas Summit, Valencia. Spain, January 2007
- "Making the XO", IEEE Consumer Communications and Networking Conference, Las Vegas, January 2007
- "The \$100 laptop", Biel Bienne Communication Days, Biel, Switzerland, October 2006
- "Rethinking Connectivity", WorldComp'06, Las Vegas, June 2006

Selected Publications

- G. Kechriotis, M. Ann, M. Bletsas, R. Tolimieri and E.S. Manolakos, "A New Approach for Computing Multi-dimensional DFTs on Parallel Machines and its Implementation on the iPSC/860 Hypercube" *IEEE Transactions on Signal Processing*, vol. 43(1):272-285, January 1995
- M. An, N. Anupindi, M. Bletsas, G. Kechriotis, C. Lu, E.S. Manolakos, R. Tolimieri, "Comparison of two-dimensional FFT implementations on the Intel Paragon massively parallel supercomputer", in the Proceedings of the 1995 *IEEE Int. Conf. on Acoustics Speech and Signal Processing*, (ICASSP'95), Detroit, pp. 2755-2758, May 1995
- M. Bletsas, "Wirefree in Patmos", *BT Technology Journal*, Vol 22 No 4, October 2004.
- M. Minsky, *The Society of the Mind*, Preface for the 2nd greek edition, March 2006.
- R. Carrano, M. Bletsas, Michail and L. Magalhães, "Mesh networks for digital inclusion-testing OLPC's XO mesh implementation", in the Proceedings of the 2007 WSL, pp. 220-121

- M. Bletsas, The MIT Media Lab's Glass Infrastructure: An Interactive Information System, IEEE Pervasive Computing, April-June 2012

Selected Activities

- Member of the Board of Trustees, College Year in Athens
- Member of the Advisory Board for **enter•grow•go** , Eurobank's startup accelerator
- Ambassador for Vodafone's Greece Philanthropic Foundation
- Technology Plan advisory committee member, Wellesley public schools.
- Member of the Advisory Board and Juror, MIT Enterprise Forum Greece.
- Member of the oversight committee of the Hellenic Parliament's "Junior Parliament" effort.
- Member of Mayor Thomas Menino's (City of Boston) WiFi task force (2006). The purpose of the task force was to develop recommendations for Boston's future wireless network development efforts. (2006)
- Member of the external experts planning committee of the Greek Ministry of Development for EU's 4th Community Development Framework. (2006)
- Has testified as an expert witness in technology-related legal cases.
- Participated in the UN's World Summit for the Information Society (WSIS) in Geneva (2003) and Tunis (2005)
- Member of the first board of directors for the NGO "Access to Democracy" (2003)
- Founding Member and CTO of the Hellenic Resources Network, a pioneering web aggregator of news articles relating to the Balkan Peninsula. The leading Greek website for a number of years, which played an important role in diffusing the crisis between Greece and Turkey over the Imia Islets in the Eastern Aegean in 1996.
- Participated as a scuba diver and computer engineer in the underwater excavation of one of the oldest recorded shipwrecks (circa 3000BC), in the islet of Dokos in Greece during the summer of 1991 with the Institute of Underwater Archaeological Research, Greece