

Robert Abbott

Robert P. Abbott leaves in his wake an amazing 50 year career marked by major contributions to the area of information technology, computer systems audit, and information risk management. Abbott, who earned his B.S. Mathematics from the University of California, Berkeley, in the late 1940s, was a senior scientist at Lawrence Livermore National Laboratory, where he led a series of noted efforts, including the development of the first multi-user, multi-tasking operating system for Cray class supercomputers to go into 24X7 operational deployment. The Livermore Time Sharing System (LTSS) was in operational use by weapons designers for over 30 years. After the LTSS effort, Abbott led a project that produced the first physiological monitoring system for patients recovering from open-heart surgery.



In the area of information security, Abbott was Principal investigator for the RISOS (Research in Secured Operating Systems) Project, a DARPA-funded effort to define the meaning and boundaries of IT security. This 1971-1976 program was the first funded research addressing computer security, and the vulnerabilities articulated in the findings of this effort still apply to current computing systems. In addition to RISOS, Abbott was the author of the first set of Privacy and Data Confidentiality policies for the Health Care area (1974) and the first NBS (now NIST) publication on Security Analysis and Enhancements for Computer Operating Systems. This document was withdrawn from publication after being deemed too dangerous for release, amidst concerns that it be used as a roadmap for those who would misuse software for criminal gain.

When he retired from LLNL in 1977, Abbott formed EDP Audit Controls, Inc., one of the earliest commercial consulting practices focusing on areas of EDP audit and computer security. In this capacity, he was a major contributor to the early EDP Audit and Computer Security Audit industries and served on the Board of Directors for the San Francisco chapters of the EDPA and ISACA. Many of the U.S.'s major corporations were clients of his firm and much of what is used as standard operating procedure in the security audit industry today was derived from work documented by him and his proteges. In 2002, Abbott was awarded the Fitzgerald Award by the New York Chapter of ISSA for his lifetime contributions to the field of IT security.

To the general public, perhaps the most visible influence that Abbott had on the computer security arena was in his role as technical advisor to the producers of the movie "Sneakers," a popular movie showcasing the exploits of a commercial security testing team. Many of the team characters were modeled after actual members of Abbott's team (an inside joke to many fellow members of the security community) and the NSA Agent played by James Earl Jones was given the name "Bernard Abbott" in recognition of Abbott's contribution to the film. At an age when many professionals might have retired, Abbott remained active, advising the research community exploring intrusion detection and monitoring technologies, and mentoring a generation of security professionals. He advised researchers active in various aspects of modern network security and worked on devising a monitoring engine that would allow someone charged with securing a network to answer questions about the security of that network. In one of his final professional efforts, he served as the team leader for a group of security experts in a landmark assessment of the security of voting machines. This assessment, performed in 2007 for the California Security of State, led to the decertification of four major brands of voting machines due to security problems. In the efforts that marked his extraordinary career, Abbott's combination of technical acumen and social skills allowed him to unify teams that were drawn from wide ranges of ages, ethnicities, and cultures.

[Tribute presented by Gene Spafford at 2010 ACSAC]