presents **Peter G. Neumann** of SRI International on

Integrity of Elections

Elections demand end-to-end integrity of voting processes, with additional trustworthiness requirements such as **system security, privacy, usability, and accessibility**. The overall system aspects present a paradigmatic hard problem. In today's systems and procedures, essentially everything is a potential weak link. The pervasive nature of the risks is astounding, with a serious lack of system architecture, good software engineering practice, and understanding of security problems. This talk will discuss **limitations in existing systems, processes, standards, and evaluations**. It will also consider some possible alternatives––including **nontechnological approaches, computer-based systems, and possible roles for cryptography.**
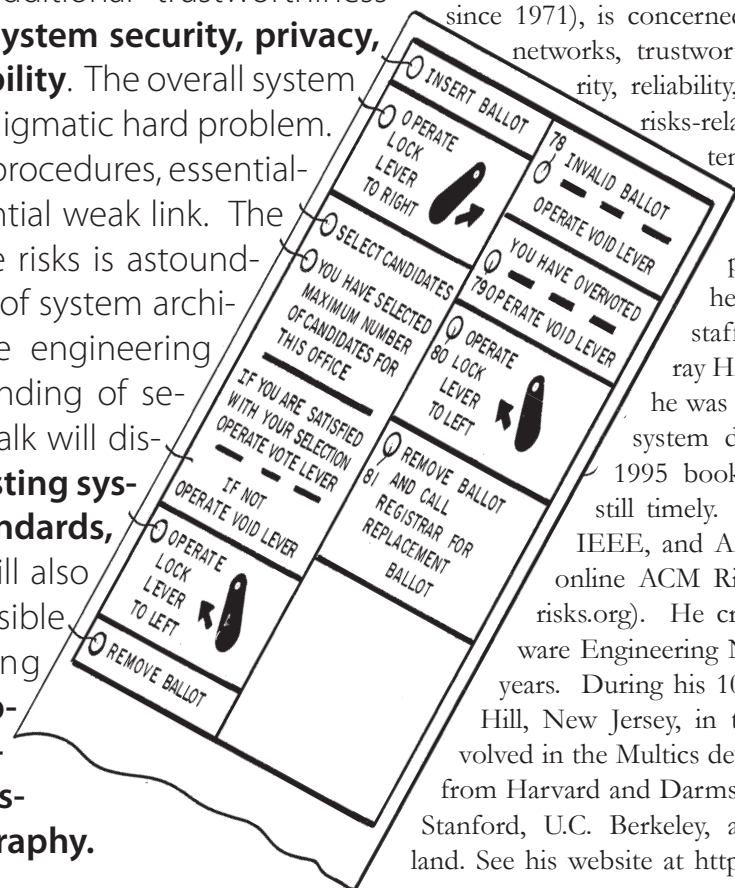
Peter G. Neumann, Principal Scientist in SRI International's Computer Science Laboratory (where he has been since 1971), is concerned with computer systems and networks, trustworthiness with respect to security, reliability, survivability, and safety, and risks-related issues such as voting-system integrity (for over 20 years), crypto policy, social implications, and privacy. A computer professional since 1953, he was a member of technical staff at Bell Laboratories in Murray Hill throughout the 1960s, where he was heavily involved in the Multics system development 1965-1969. His 1995 book, Computer-Related Risks, is still timely. He is a Fellow of the ACM, IEEE, and AAAS. In 1985 he created the online ACM Risks Digest (comp.risks, www.risks.org). He created ACM SIGSOFT's Software Engineering Notes in 1976, edited it for 19 years. During his 10 years at Bell Labs in Murray Hill, New Jersey, in the 1960s, he was heavily involved in the Multics development. He has doctorates from Harvard and Darmstadt, and taught at Darmstadt, Stanford, U.C. Berkeley, and the University of Maryland. See his website at http://www.csl.sri.com/neumann.

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