Contact:	Virginia Gold	Jeff Grove
	212-626-0505	202-659-9711
	v_gold@acm.org	jeff_grove@acm.org

IMMEDIATE

ACM RECOMMENDS INTEGRITY, SECURITY, USABILITY IN E-VOTING

Cites Risks of Computer-based Systems

New York, September 27, 2004 -- Seeking to bolster the security, accessibility, and public confidence in the voting process, ACM's elected leadership has approved a public statement on the deployment and use of computer-based electronic voting (e-voting) systems for public elections. ACM's position is that while computer-based e-voting systems have the potential to improve the electoral process, such systems must embody careful engineering, strong safeguards, and rigorous testing in both their design and operation.

> ### ACM Statement on Voting Systems
>
> Virtually all voting systems in use today (punch-cards, lever machines, hand counted paper ballots, etc.) are subject to fraud and error, including electronic voting systems, which are not without their own risks and vulnerabilities. In particular, many electronic voting systems have been evaluated by independent, generally-recognized experts and have been found to be poorly designed; developed using inferior software engineering processes; designed without (or with very limited) external audit capabilities; intended for operation without obvious protective measures; and deployed without rigorous, scientifically-designed testing.
>
> To protect the accuracy and

"The use of computer-based systems to improve voting is a continuing process that will demand the ongoing involvement of technical experts, usability professionals, voting rights advocates, and dedicated election officials in the U.S. and other countries, said ACM President David Patterson. "As a leading voice in computing matters, ACM looks forward to working with all stakeholders in ensuring the integrity, security, and usability of systems used in public elections."

Experts from the computing community have identified a variety of risks and vulnerabilities in many e-voting systems stemming from poor design, inferior software engineering processes, mediocre protective measures, and insufficient comprehensive testing. As a result, ACM has recommended that e-voting systems enable voters to inspect a physical (e.g., paper) record to verify the accuracy of their vote, and to serve as an independent check on the record produced and stored by the system. In addition, those records should be made permanent, not based solely in computer memory, to allow for an accurate recount.

impartiality of the electoral process, ACM recommends that all voting systems-particularly computer-based electronic voting systems-embody careful engineering, strong safeguards, and rigorous testing in both their design and operation. In addition, voting systems should enable each voter to inspect a physical (e.g., paper) record to verify that his or her vote has been accurately cast and to serve as an independent check on the result produced and stored by the system. Making those records permanent (i.e., not based solely in computer memory) provides a means by which an accurate recount may be conducted. Ensuring the reliability, security, and verifiability of public elections is fundamental to a stable democracy. Convenience and speed of vote counting are no substitute for accuracy of results and trust in the process by the electorate.

ACM past president Barbara Simons, a prominent figure in the computing community on e-voting issues, agrees. "It is crucial that any computerized voting system provide a voter-verified audit trail that can be checked for accuracy by the voter when the vote is cast, and cannot be altered after the vote is cast," she said.

The ACM statement on e-voting reflects the values in its long-held Code of Ethics and Professional Conduct. The Code states that computing professionals have a responsibility to share technical knowledge and expertise with the public by encouraging understanding of computing, including the impacts of computer systems and their limitations.

Prior to approving the statement, ACM engaged its membership, bringing the issue to their attention and soliciting their feedback in an online poll to gauge their support for the statement. Of the nearly 4,600 members from around the world who shared their opinions, 95 percent indicated their agreement with the statement. ACM continues to strengthen its position, visibility, and participation in government policy formulation by educating and informing policymakers on key issues in computing and information technology.

About ACM
ACM (www.acm.org) is widely recognized as the premier organization for computing professionals, delivering a broad array of resources that advance the computing and IT disciplines, enable professional development, and promote policies and research that benefit society.