

January 31, 2003

To the Board of Supervisors of Santa Clara County:

As the Co-Chairs of the U.S. Public Policy Committee of the Association for Computing Machinery, we are writing to urge election officials to consider some critical technical issues related to computerized voting.

Computers are inherently subject to programming error, equipment malfunction, and malicious tampering. If we are to ensure fair and honest elections, and retain voter confidence in our democratic process, we need to ensure that there are no questions of any such errors or tampering with voting equipment. Therefore, it is crucial that any computerized voting system provide a voter-verifiable audit trail: there should be an anonymous record of each vote that can be checked for accuracy by the voter when the vote is cast, and is difficult or impossible to alter after the vote is cast. Conventionally, paper ballots act as these records, but in the future there could be other forms of records that serve the same purpose. These records are vital to preserve the option of doing a recount in the case of possible errors or fraud and on a random basis to check the accuracy of electronic counts.

Unfortunately, many of the newer electronic voting machines being offered for sale do not provide a voter-verifiable audit trail. Use of these machines is risky. When machine problems or unusual results leave an election in doubt, the only available options will be to accept the results, regardless, or hold a revote. Worse, undetected errors or tampering may alter the outcomes of elections. The well-intentioned but premature establishment of a vulnerable system for voting could result in unintended consequences undermining the confidence, integrity and accuracy of the electoral process.

We urge governments at all levels to avoid purchasing voting equipment that does not provide a voter-verifiable audit trail, and to upgrade existing machines if they do not provide such an audit trail. Providing a voter-verifiable audit trail should be one of the essential requirements for deployment of new voting systems.

Sincerely,

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About USACM:

USACM is the U.S. Public Policy Committee of the Association for Computing Machinery (ACM). ACM is the leading nonprofit membership organization of computer scientists and information technology professionals dedicated to advancing the art,

science, engineering and application of information technology. Since 1947, ACM has been a pioneering force in fostering the open interchange of information and promoting both technical and ethical excellence in computing. Over 70,000 computer scientists and information technology professionals from around the world are members of ACM.