

R. Michael Alvarez
Jehoshua Bruck
Jonathan Katz
D. Roderick Kiewiet
Thomas R. Palfrey



Ted Selker
Stephen Ansolabehere
Adam Berinsky
Sriniv Devadas
Stephen C. Graves
Ron L. Rivest
Charles Stewart III

Caltech/MIT Voting Technology Project

Statement on Verifying the Vote and Auditing Elections
February 10, 2004

Legislation before the US Congress and in several state legislatures requires that all new voting technologies have “voter verifiable paper trails” – a paper record of the vote that the voter can inspect and that can be used to check that the vote is accurately registered by the tabulation equipment.

We agree with the general principle behind this legislation. Voters and election officers must have confidence in particular election *results*, and the ability to audit elections is critical for that goal.

To that end, we believe that all new voting equipment should have a voter verifiable audit system that both allows a voter to double check the vote before it is cast and provides assurance that the tabulator counts all votes as they were cast. Paper is the most obvious method and one with which election officials have a great deal of experience. Paper ballots are the standard against which other systems must be measured.

However, an auditable voting system need not be based on paper. Other technologies might emerge in the coming years that would guarantee confidence in election results and would improve on paper ballots in other ways. One such idea is based on our proposal for a new Modular Voting Architecture and involves, for example, the use of a write-once memory card that serves as the official ballot. The proposed new framework is discussed in our 2001 report *Voting: What Is, What Could Be*.

The choice of technology is not the only determinant for establishing a voter verified audit system. There also needs to be a process in place for reviewing elections and certifying the validity of the results. Few states perform actual audits of election results, apart from occasional recounts. Careful audits of election results would provide valuable information about the performance of the entire voting system.

Finally, it is also important to ensure confidence in the election system as a whole, in addition to confidence in particular election results. We feel that the best means to this end is openness in the development and deployment of new technology. This means, among other things, that computer programs that tabulate votes should be developed using methods that can increase security such as open source.

EMBARGOED UNTIL 7AM EST, TUESDAY, FEBRUARY 10, 2004

MEDIA CONTACT: Jill Perry, Media Relations Director (626) 395-3226 jperry@caltech.edu