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A Modest Proposal: Everybody out of the pool

The next chapter is called “Practical Activism,” and it’s full of ideas to help us take back our vote. But what, exactly, are we fighting for?

In June 2003, I queried many in the voting-activism community about what, exactly, we should *do* with a voter-verified paper-ballot system when we get it. No one seemed quite sure. It’s been a long, hard fight and I’m confident that we’re going to get the paper ballot — but not soon enough, and it’s not worth a thing if we don’t audit.

Congressman Rush Holt from New Jersey proposed HR 2239 to mandate voter-verified paper ballots, get rid of risky remote-access tools and require a spot-check audit. His bill has been a giant step in the right direction but still doesn’t address auditing.

The optical-scan machines in Volusia County, Florida, demonstrate that paper ballots don’t necessarily provide security, and what you are about to read will show that paper ballots alone won’t secure the system.

We are stuck with trusting those who have access.

In King County, Washington, an individual named Jeffrey Dean obtained a contract to program the voter-registration system. According to sources within the King County elections office, Dean also had a key to the computer room, the passcode to the GEMS computer and 24-hour access to the building. So here’s a man with access to our personal information and to the programs that count 800,000 votes.





According to the Diebold memos, Jeffrey W. Dean apparently had access not only to King County, but also to the entire suite of optical-scan software used in 37 states and the security-sensitive Windows CE program for the touch screens. He had access to our votes, but what Jeffrey Dean is not allowed to have is access to handling any checks.

That is because his criminal sentence for twenty-three counts of felony Theft in the First Degree forbids him to handle other people's money, now that he has been released from prison. According to the findings of fact in case no. 89-1-04034-1:²

"Defendant's thefts occurred over a 2 1/2 year period of time, there were multiple incidents, more than the standard range can account for, the actual monetary loss was substantially greater than typical for the offense, the crimes and their cover-up involved a high degree of sophistication and planning in the use and alteration of records in the computerized accounting system that defendant maintained for the victim, and the defendant used his position of trust and fiduciary responsibility as a computer systems and accounting consultant for the victim to facilitate the commission of the offenses."

An embezzler who specialized in sophisticated alteration of computer records was programming the King County voting system, and is also mentioned specifically in the Diebold memos in connection with programming the new 1.96 version optical-scan software and the touch-screen Windows CE program. Let's look at some of the features Dean says he programmed for a "ballot on demand" optical scan application:

Jeffrey W. Dean, January 22, 2002 RE: serial numbers on ballots: "The BOD [Ballot on Demand] application that we have been running in King County since 1998 does put serial numbers on the ballots (or stubs) along with a variety of optional data. The application also will optionally connect the ballot serial number to a voter."³

Diebold told The Associated Press that Dean left the company when they took over,⁴ but in fact, Diebold retained him as a consultant:

From: Steve Moreland, 4 Feb 2002: "I am pleased to announce that effective today, John Elder will be assuming the role of General Manager of the Printed Products department of Diebold Election Systems, Inc. ... Jeff Dean

has elected to maintain his affiliation with the company in a consulting role, reporting to Pat Green. The Diebold Election Division management team greatly values Jeff's contribution to this business and is looking forward to his continued expertise in this market place.

While in prison, Jeffrey Dean met and became friends with John Elder, who did five years for cocaine trafficking. At the time of this writing, Elder manages a Diebold division and oversees the printing of both ballots and punch cards for several states.

Punch-card manufacturers manage a high-risk security point because this is where the die cutting is done. By setting the cut so that some chads dislodge more easily than others, it is possible to manipulate a punch-card election. Diebold's printing division also bids on printing for other voting-machine vendors, such as Sequoia.

Jeffrey Dean was released from prison in August 1995, and Elder was released in November 1996. In their prison-release documents, both wrote that they had lined up employment at Postal Services of Washington, Inc. (PSI Group), the firm that sorts 500,000 mail-in absentee ballots for King County.⁵

King County contracts the mailing of its absentee ballots out to Diebold's print and mail division, which was run by Jeffrey Dean and is now run by John Elder. This division subcontracted with PSI Group to sort King County's incoming absentee ballots.

Sorting the incoming ballots is a high-risk security point for absentee ballots. We know how many absentee ballots we send out but don't know many are filled out and sent back in, especially if they pass through a middleman before being counted by elections officials. Elections officials may tell you they count the ballots before outsourcing for precinct sorting, but in major metro areas, up to 60,000 ballots arrive in a single day and elections offices are generally not staffed to handle this. It also makes no sense to count ballots by precinct and then send them out for sorting.

Jeffrey Dean, when released from prison, had \$87 in his inmate account. He had been ordered to pay \$385,227 in restitution for his embezzlements. Most of us would find it difficult to bankroll a business under those circumstances, yet somehow Dean (and his wife, Deborah M. Dean) managed to become the owners of Spectrum Print & Mail. According to securities documents for Global Election Sys-



tems, who hired Jeffrey Dean as a director and senior vice president in 2000 and 2001, Dean had been running Spectrum since 1995 — shortly after Dean was released from prison. In September 2000, Spectrum was purchased for \$1.6 million by Global Election Systems.⁶

We've had a cocaine trafficker printing our ballots, an embezzler programming our voting system and our absentee ballots being funneled through a company that hires people straight out of prison. And when we try to find out what software is actually authorized, we get the buffalo shuffle.

I don't believe there is a certification program in existence that can protect us from inside access. We need criminal background checks, full financial disclosure for all state elections officials, and robust, fraud-detering audits.

Everyone out of the pool. We have to disinfect it.

These public-policy issues can't be addressed with certification or even by mandating paper ballots. We need procedural protections. We just "got lucky" and discovered Diebold's files. What about the other companies? The truth is, we have no idea how big this problem is. Every time we ask questions, we get the wrong answers.

We need a short-term moratorium on counting votes by machine. I know it sounds radical. If, temporarily, we have to do the old-fashioned thing and count by hand, let's just roll up our sleeves and do it. We shouldn't require citizens to vote on systems that can't be trusted.

In an audit, when there is an anomaly with a spot check, you pull the whole subset of records for a more careful examination. We just spot-checked Diebold. I'd say we found an anomaly.

Now we need to pull the subset of voting-system vendors, give everyone a background check and send an auditor in to check their records. And perhaps their memos. We need to get an independent evaluation of the software on *all* of our voting machines, to find out what the heck is actually on them.

Public Policy

It's time to rethink our public policies for voting. We took away transparency, and look what happened: We got bit. Now we need to



bring transparency back.

The Declaration of Independence does not say, “Governments are instituted among men, deriving their just powers from the consent of the computer programmers.”

Unless ordinary citizens with no computer expertise can *see* with their own eyes that votes are being counted accurately, the audit system must be considered a failure. In a democracy like ours, you don’t need to be a lawyer to sit on a jury. You shouldn’t need to be a computer programmer to count a vote.

The “many eyes” method simply means that we let as many independent parties as possible view the vote-counting. I spoke with Christopher Bollyn, a reporter who has written several articles about the erosion in integrity of our voting system as it migrated to computerized counting. He described an election he witnessed in France:

When it comes time to count, as many citizens as can fit in the room are allowed to come in and watch the counting. Sworn election officials, some from each party in the election, in front of all the observers, count the ballots into piles of 100. Each set of ballots is placed in a bag. Then, one bag at a time, the election officials count the ballots, announcing each one. They tally up one bag and move to the next, until all are done.

It takes a relatively short time to count 1,000 votes, and by having many election precincts throughout the country, all of France can be counted in a matter of hours, in front of thousands of eyes.

In the U.S., we complain that our citizens don’t think their vote matters. Here’s a concept: Let people *see* their vote. Not a video representation of a vote hiding in a black box, but the *actual vote*. Count votes before they leave the neighborhood. Invite people in to watch the counting. And add a 21st Century twist: Install a Web camera, so citizens can watch the vote-counting live, on the Internet.

If we want people to care about voting, we musn’t take the people out of “we, the people.”

Procedural Safeguards

To correct current procedural flaws, we need to bring in the right kinds of experts — auditors — and we need to keep the system simple. Here



are some procedural safeguards we should consider:

- Verify the machine tally while still at the polling place. Run a report of the tally from the polling place before phoning, modeming or driving anything to the county. Post this report on the door of the precincts and make copies available to the press.
- Compare the polling-place tally with the matching totals assigned by the central county office. This makes it much harder to get away with changing votes after they leave the polling place, and manipulations of programs like GEMS will be caught.
- Provide clearly delineated accounting for the votes that appear separately from the precinct totals, like absentee votes and provisional votes. Polling-place tallies should always match what is posted at the polling place. Separate the other votes cleanly and record them in a way that is easily understandable for everyone.
- Hand audits must be a routine part of every election, not just used for recounts. Hand-audit any anomalies.
- Make “random” spot checks truly random by using a transparent and public method for random selection.
- Allow the press, and any citizen, to audit if they pay for it. If they discover that the election was miscounted, reimburse them. Find ways to do these audits inexpensively.
- Allow each party to select a handful of precincts to hand-audit. Discretionary audits shine more light into any precincts deemed suspicious.
- Require audits for insufficient randomness (e.g., three candidates get 18,181 votes; poll book shows voters arrived in alphabetical order).
- Require that the audit be expanded if discrepancies are spotted, *whether or not the identified discrepancy would overturn the election*.
- When voting machines miscount, require that fact to be disclosed, and if it is the fault of the vendor, require such failures to be disclosed to prospective buyers.
- *Consider a 100 percent audit of the paper ballots.* It may be easier and cheaper to do a 100 percent audit than to counter the political tricks that will arise when we introduce judgment (like what constitutes an “anomaly”) into a robust spot-checking procedure.



The biggest objection to proper auditing is that it takes too much time. If we aren't willing to invest the time to safeguard the system, maybe we should rethink the idea of using voting machines altogether.

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Words are important: "Paper ballot," never "receipt." A paper ballot is a legal record and substantial. A receipt is a small slip of paper we might stick in our pocket.

Three Proposals

I. The Mercuri Method

Who created the voter-verified balloting concept? Dr. Rebecca Mercuri did. She wrote of her design concept in a paper called "A Better Ballot Box,"⁷ the first and probably the most widely accepted design for a hybrid electronic/paper ballot system, though of course it still needs the auditing procedures.

The Mercuri Method allows proprietary voting machines made by private manufacturers but requires that they modify touch-screen or DRE machines to generate paper ballots. The system should record votes electronically, then print a paper ballot and display it behind a plastic or glass panel, which prevents the voter from removing it from the polling place, or accidentally mangling it so that it can't be easily read. The voter reviews the ballot. If it does not represent her choices, she calls an election official, who voids the ballot, and she votes again. Once she approves the ballot, it drops into a ballot box for later tallying. This voter-verified paper ballot must be the definitive record of the vote.

The electronic count can be used to provide preliminary results, but the official result must come from the paper ballots.

II. An open source method, from David Allen

Suppose we want to open-source this and take ownership of the voting system back into public hands. Here is a proposal for such a system. Like Mercuri's plan, it does not address the auditing issue.



Allen’s proposed system requires a paper ballot that uses anti-tampering features like those found in financial documents and requires that computerized data be stored on non-eraseable media.

Allen recommends open-source development. Everyone should be invited to watch the system being built, in the open rather than in secret.

Allen suggests a real-time record of everything that happens on the voting machine. Each “keystroke” of the election is recorded. This can be done with a “write-once” CD-ROM drive.

“If we are going to use a ‘black box’ to vote on,” says Allen, “then let’s model it after the ‘black box’ found aboard airliners (even though they are actually orange, not black). If a plane crashes, everything the crew did can be reconstructed from the black box.”

The computer should also print a ballot, which we inspect, and it is deposited into a secure ballot box. The third part of the system is the digital tally maintained on the voting machine’s hard drive or memory card. All three should match.

So, won’t we be creating tons more work by having to hand count ballots? Allen suggests that a bar code be printed along side each vote that a scanner can read, as long as the reader is generic and purchased from a source unrelated to the manufacturer of the voting machine. Ballots can thus be processed quickly at the precinct. Since the ballots are also readable by humans without requiring the aid of any device, it is easy to verify the accuracy of the scanner.

Do we really have to count *all* the paper ballots? Well, if we don’t, we need a more complicated set of audit rules.

Open source development: This is a method whereby software is developed by a community of programmers in full view of the public. Once the code is developed, any company may use it and sell it to anyone they please. They just can’t change the source code. They can bundle it with hardware, install it in precincts, teach poll workers to use it, and provide maintenance and support for the software and equipment. But, they must adhere to the inviolable commandment: Tamper not with the actual source code. It doesn’t belong to you; it belongs to the taxpayer.

Some proposals for open-source electronic voting machines create code that is so simple that it can use inexpensive hardware and even recycle old computers.





III. All Paper Ballots, All Hand-Counted

Victoria Collier grew up discussing vote fraud around the dinner table. Her father, James Collier, and her uncle, Kenneth Collier, wrote *Votescam: The Stealing of America*,⁸ published in 1992, the first hard-hitting book about high-tech vote fraud. In 1970, Ken Collier ran for Congress against Claude Pepper in Dade County, Florida, picking up about 30 percent of the vote. As the electronic voting-machine totals weighed in, Ken Collier and campaign manager James Collier noticed that they suddenly lost 15 percentage points. They didn't get another vote for the rest of the night.

According to the Collier brothers, “[when they] compared the official vote results with a print-out of the vote projections broadcast by the TV networks on the final election night, they found that Channel 4 had projected with near-perfect accuracy the results of 40 races with 250 candidates only 4 minutes after the polls closed. Channel 7 came even closer; at 9:31 p.m., they projected the final vote total for a race at 96,499 votes. When the Colliers checked the ‘official’ number ... it was also 96,499.”

“In hockey, they call that a hat trick,” the Colliers write. “In politics, we call it a fix.”

“Listen, here's my idea,” says Victoria Collier. “After the public touch-screen bonfire (we really need more community-minded events, don't you think?), we should march to our secretary of state's office and demand the restoration of a hand-counted paper-ballot system.”

Collier recommends using properly designed, easy-to-use paper ballots and see-through boxes; and that the count be done by hand, in public, videotaped and aired live on television, with the results posted on the precinct wall. If we count all ballots at the polling place on Election Day, it will be much harder to alter ballots. She also recommends other security measures, to prevent ballot boxes from going missing on the way to the county elections office.



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Black Box Voting

