

Diebold: In Their Own Words

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Perspective

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 - Arlington has **21 optical-scan Diebold AccuVote machines**, one for each precinct.
 - “When the polls close, the precinct totals are immediately printed at the precinct, posted, announced, and then **transferred to the Town Clerk's Office on a memory card**, where the precinct totals are accumulated by entering the memory cards into the main counting system.”

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 - Arlington has **21 optical-scan Diebold AccuVote machines**, one for each precinct.
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 - On Oct 28, 2003, Diebold sent me a **cease-and-desist letter**.

Timeline

- “Nebulous past” (July, 2003?): Copies of Diebold election software and internal Diebold memos are obtained by *Scoop.co.nz* and make their way onto the Internet.
- Oct 10, 2003: Swarthmore students hosting the memos receive a cease-and-desist letter from Diebold, and start their “Electronic Civil Disobedience” campaign.
 - Campaign mis-named: see “Tobacco papers” case involving Stanton Glantz and Brown & Williamson.

Timeline, cont.

- **Oct 24, 2003:** I participate by posting my own copy of the memos. Students from over fifty universities take part.
- **Oct 28, 2003:** I receive a DMCA take-down notice from Diebold. (Many other students receive similar notices.)

Timeline, cont.

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- **Oct 28, 2003:** I receive a DMCA take-down notice from Diebold. (Many other students receive similar notices.)
- **Nov 2, 2003:** I reply with a DMCA counter-notice and reinstate the files.
- **Nov 4, 2003:** The Electronic Frontier Foundation and the Center for Internet and Society Cyberlaw Clinic at Stanford Law School counter-sue.
- **Dec 2, 2003:** Diebold says, “Sorry, won’t do it again,” in federal court.

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- Re: Software for Los Angeles, CA

I have completed the computer for LA and Alameda. The computer for LA has GEMS 1-16-9 and the AVTS units have 3-13-1-4.

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⇒ California SoS (among others) launched investigation into Diebold, triggered by these revelations.

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2. Evidence of software vulnerabilities

- Spyrus creating unauthorized Manager Cards
 - “4K Smart cards which had never been previously programmed are being recognized by the Card Manager as manager cards. [...] Pressing the ENTER key creates a valid manager card. This happens in [...] Election mode.”

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2. Evidence of software vulnerabilities

- RE: alteration of Audit Log in Access

“Right now you can open GEMS’ .mdb file with MS-Access, and alter its contents. That includes the audit log. [...] [R]ight now very *easy* to change the contents. Double click the .mdb file. [...] Jane [...] did some fancy footwork on the .mdb file in Gaston recently. I know our dealers do it. King County is famous for it. [...] I would be more worried about modifications to our electronic ballots than to our electron logs, but that is another story I guess.”

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⇒ Backed up by RABA report.

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3. Evidence of hardware problems

- RE: Memory card checksum errors (was: 2000 November Election) (18 Jan 2001)

“I need some answers! Our department is being audited by the County. I have been waiting for someone to give me an explanation as to why Precinct 216 gave Al Gore a minus 16022 when it was uploaded. [...] We had this happen in several precincts and one of these precincts managed to get her memory card out of election mode and then back in it, continued to read ballots, not realizing that the 300+ ballots she had read earlier were no longer stored in her memory card.”

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- Re: Investigation of Volusia's Memory Cards. (26 Feb 2001)

“One vote center in Volusia quietly did clear the counters but failed to recount the previously processed ballots.”

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- memory card corruption in Kansas (26 Feb 2001)

“More on the memory card corruption front ... this time Kansas ...

25 of 200 of Wyandotte County’s memory cards have experienced corruption problems in the last three weeks.”

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- Corrupted Memory Cards (6 Nov 2001)

“Please report any corrupted memory cards to me from elections. I’ve had one in Santa Barbara tonight. I’m curious how many more we have. We are entering another cycle of elections without this fixed I guess.”

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⇒ System must work end-to-end.

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- RE: El Paso, Colorado (19 March 1999)
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- Re: Pollbook Function (6 Jun 2000)
I hope our competitors do not read our mail. What an attitude we have.

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4. A reality-check on machine vendors

- Re: GEMS 1.11.2 preference voting errors (2 Sep 1999)

“This is a requirement of North Carolina election law. [...] I’m willing to let it ride until after November, but I would like sales to weigh in on the issue to determine how much damage this may cause. [...] Also, we’ve run into a bit of trouble at the N.C. State Board of Elections (albeit over an entirely different issue of AccuVote behavior). Robert P. had to do a bit of tap dancing to keep them off our backs.”

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4. A reality-check on machine vendors

- Re: Voter Group selection in Header Options screen (9 Oct 1999)

If anyone has a better idea how to get around this certification issue (not at all unlikely), speak up. [...] Most of the rest of Georgia's counties probably don't care whether they're using a certified release or not (Chatham County doesn't even generate separate ballots for polling and absentee in disregard or ignorance of that provision in the law) [...].

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⇒ Idealism is misplaced.

My Own Conclusions

- “Machines are secure/accurate if procedures are followed”
 - Procedures are not being followed.
 - Bicycle locks and three-digit combos.
- A question:

What percentage of people think that it's acceptable for their vote to be counted for a candidate not of their choice, because electronic voting machines are “easier to use”?

Impact

- 29% of the vote (**50 million votes**) in this year's election will be on electronic voting machines [Associated Press].
- 10% of the (**all-DRE**) vote in Iowa was sufficient to substantially change the course of this year's Democratic primary.

**The Graveyard Of Unused Slides
follows this point.**

Resistive Touch Screens

Information on simultaneously touching 2 positions on the ballot station (7 Jun 2001)

“You have a ballot with a race of 5 candidates that allows you to vote for one. Two candidates are touched simultaneously and the vote is registered for the candidate between the 2 that were touched. This is the normal action for a resistive touch panel, but can cause concern.”