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 2 DISTRICT COURT !  
 3 BOULDER COUNTY !  
 4 COLORADO !  
 5 1777-6th Street !  
 6 Boulder, CO 80306 !  
 7 -----!  
 8 Plaintiff-Appellee: !  
 9 SEWARD DEAN SCHOOLER, JR. !  
 10 !  
 11 ! \*FOR COURT USE ONLY\*  
 12 Defendant-Appellant: !-----  
 13 LINDA N. SALAS, ! Case No. # 04 CV 1281  
 14 ! Division # 2  
 15 -----!  
 16 !  
 17 For Plaintiff: !  
 18 Robert Corry, Esq. !  
 19 !  
 20 For Defendant: !  
 21 Leslie Lacy, Esq. !  
 22 !  
 23 For Defendant: !  
 24 Melody Mirbaba, Esq. !  
 25 !  
 26 -----!

15  
 16 The matter came on for hearing on Tuesday,  
 17 October 26, 2004, before the HONORABLE MORRIS SANDSTEAD,  
 18 Judge of the District Court, and the following proceedings  
 19 were had:  
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1 MORNING SESSION, TUESDAY, OCTOBER 26, 2004

2 (The court convened at 9:50 a.m., with all the  
3 parties present and the following proceedings were had:)

4 THE COURT: We are back on the record in 2004 CV  
5 1281. Does the Defendant have any other witnesses?

6 MS. LACY: Not at this time, but we reserve the  
7 right to call the same witnesses on rebuttal. And I just  
8 wanted --

9 THE COURT: You don't get rebuttal, really,  
10 because you don't have the burden of proof.

11 MS. LACY: Especially since we were taken out of  
12 order, we would like the opportunity to respond.

13 THE COURT: You can do that. You can do that.

14 MS. LACY: I want to let the Judge know we have  
15 had a chance to discuss this as a group this morning and we  
16 do agree that the Colorado Election Code Section 1-1-113 --  
17 if he doesn't have it in front of him -- is the applicable  
18 statute.

19 It provides that the procedure specified in this  
20 section shall be the exclusive method --

21 THE COURT REPORTER: Excuse me --

22 MS.LACY: -- shall be the exclusive method for the  
23 adjudication of controversies arising from a breach or  
24 neglect of duty or other wrongful act that occurs prior to  
25 the day of the election.

1           Mr. Corry did cite this in his request for relief.  
2 He is claiming that there has been wrongful action taken,  
3 and is prior to the date of the election, and this provision  
4 is clear in Section 1 that the standard is "substantial  
5 compliance."

6           And I did bring with me today a copy of the  
7 Colorado Supreme Court case --

8           THE COURT: I have it.

9           MS. LACY: Good. On page -- I can never tell with  
10 the Westlaw printouts -- I can hand the Judge what  
11 substantial compliance means and why strict compliance is  
12 not appropriate -- an appropriate standard for and cite all  
13 the case --

14          THE COURT: Cite to me again the case?

15          MS. LACY: 885 P.2d 2 --

16          THE COURT: No. No. The statute.

17          MS. LACY: You know, I'm just going to hand it to  
18 you.

19          THE COURT: Okay. Your first witness.

20          MR. CORRY: The Plaintiffs calls Al Kowlicz.

21          MS. LACY: Could I say another thing before we go  
22 with Mr. Kowlicz?

23          THE COURT: Yes.

24          MS. LACY: I want the Court to know that we still  
25 don't know exactly what it is he is planning to testify

1 about. We received a resume yesterday just before coming to  
2 court, and we are not clear what it is he is going to be  
3 testifying to that has anything to do with secrecy of the  
4 ballot.

5 And if the Court is going to allow him to testify,  
6 we want to be absolutely sure his testimony is limited to  
7 anything directly related to secrecy of the ballot.

8 Mr. Kowlicz has many issues with various election  
9 officials around the state, and we don't want this to be a  
10 soapbox.

11 THE COURT: It won't.

12 MS. MIRBABA: Your Honor, I'm sorry, Melody  
13 Mirbaba on behalf of the Secretary of State. I would like,  
14 for the record, to move for this case to be closed and  
15 dismissed at this point.

16 Given that 1-1-113 requires that if the state or  
17 the county has substantially complied with the code, that  
18 there is no relief that may be granted to the Plaintiffs.

19 In this case I believe we have already shown  
20 substantial compliance and no need to continue on with this  
21 hearing. And, specifically, in terms of the Secretary of  
22 State, nothing has been alleged, any kind of wrongdoing on  
23 behalf of the Secretary of State.

24 THE COURT: I'll take your motion under  
25 advisement.

1 AL KOWLICZ,  
2 called as a witness on behalf of the Plaintiffs, having been  
3 first duly sworn, upon his oath, testified as follows:

4 THE COURT: Please state your name and spell it.

5 THE WITNESS: Al Kowlicz, K-O-W-L-I-C-Z.

6 DIRECT EXAMINATION

7 BY MR. CORRY:

8 Q Good morning. Could you summarize for the Court  
9 your experience in the area of voting and elections?

10 A I have become very interested in the election  
11 process, particularly in Boulder County, starting, I guess,  
12 in 1998.

13 Before 1998 I was involved as a campaign manager  
14 and campaign support person in a variety of things in a  
15 political sense, but when I got to the technical aspects of  
16 the election, beginning in about 1998 when we discovered  
17 there were fundamental problems with Boulder County voting  
18 system -- and I don't want to go into the long list of  
19 things unless you care to have that.

20 Q Are you involved with any organizations that are  
21 concerned with voting and elections?

22 A Yes, I am. I serve as the executive director of a  
23 voluntary director for CAMBER, which stands for Citizens for  
24 Accurate Mail Ballot Election Results.

25 Q And what is your professional experience with

1 computers and data?

2 A I began working with computers in college in the  
3 late '50s, probably 1956, and went to work in my first job  
4 as an IBM programmer and had a career with IBM which jumped  
5 back and forth between programming and management.

6 I guess I was fairly involved professional working  
7 on operating systems development and very complex systems.

8 I left IBM and formed the business housed here in  
9 Boulder called System Design Development and we develop,  
10 again, very complex operating systems and communication  
11 controller type of products, including the controller that  
12 put together the first international automatic teller  
13 machine network, the Plus System. We didn't do the whole  
14 Plus System, we did the controllers that put the -- all the  
15 computers together. All the components.

16 Q What is your education?

17 A I have a bachelor's in mathematics and variety of  
18 management and technical training courses through IBM and  
19 Microsoft and through private courses.

20 Q Have you ever taught college?

21 A Yes. I was professor for a number of years at the  
22 University of Denver and taught operating systems and design  
23 and advanced classes in mathematic department.

24 Q Have you ever been qualified as an expert witness  
25 in any court proceeding?

1           A     Yes, I have, in Mesa County, Colorado,  
2 approximately a year ago. It was a matter involving a  
3 question of whether or not a clerk's office had  
4 inappropriately destroyed the record needed to verify the  
5 election results.

6           Q     The Judge in that case agreed that you were an  
7 expert witness?

8           A     That's correct.

9           Q     What areas -- are you familiar with this case?

10          A     Yes, I am.

11          Q     Have you reviewed relevant documents in this case?

12          A     I have seen the coplaintiffs' filing, and I've  
13 seen a response, I believe, from the Defendant.

14          Q     Do you have --

15          A     I've reviewed them.

16          Q     Do you understand the documents in this case?

17          A     I believe so.

18          Q     And do you have any financial or pecuniary  
19 interest in the results one way or the other in this case?

20          A     I do not.

21                MR. CORRY: Okay. And -- I guess I would move to  
22 admit Mr. Kowlicz' resume to the Court. If I may approach?

23                THE COURT: You may.

24          Q     (By Mr. Corry) The resume I provided to the Court  
25 is in fact your resume?



1           A     That's correct.

2           MR. CORRY:  At this time we move to admit  
3 Mr. Kowlicz as an expert in election and voting systems.

4           THE COURT:  Do you want to voir dire?

5           MS. LACY:  I would like to voir dire, please.

6           THE COURT:  You may.

7                               VOIR DIRE EXAMINATION

8 BY MS. LACY:

9           Q     Good morning, Mr. Kowlicz.

10          A     Good morning.

11          Q     Could you tell me -- you mentioned you were  
12 qualified as an expert in Mesa County.  What were you  
13 qualified in?  What was the designation, do you recall?

14          A     I do not.

15          Q     Have you actually participated in conduct of  
16 election as election judge?

17          A     I have.  Let me see, I have been trained as  
18 election judge, I have not served as election judge.  I've  
19 served as a member of the canvass board and that's a  
20 multi-day responsibility --

21          Q     When was that role as canvass board member?

22          A     In the primary election in Boulder County this  
23 year.

24          Q     How many canvass board members are there, if you  
25 know?

1           A     Yes.  The law states that there is -- each  
2 political party is entitled to appoint one or more members  
3 to the canvass board.  They and the clerk serve as the  
4 board.

5           Q     Isn't it true that there was five teams of two  
6 people each during that canvass board effort?

7           A     No.

8           Q     There --

9           A     There was one Republican and some Democrats.  I  
10 don't know --

11          Q     Didn't you work with another person during your  
12 effort as canvass board member?

13          A     Did I work with another person?  Oh, I understand  
14 what you are asking me.  There is a set of chores that need  
15 to be accomplished that paid workers are required to do in  
16 teams, Democrat and Republican.  And it is basically going  
17 through the records trying to check things.

18          Q     Yeah.

19          A     And in Boulder County they refer to these paid  
20 workers as the canvass board, but, in fact, the -- that is  
21 not what the law stipulates.

22          Q     Isn't it true that in your role as canvass board  
23 member, over a period of five to six days you worked through  
24 four precinct and the rest of the canvass board had to do  
25 the remaining 218 and at the pace you were operating, it

1 would have taken at least six weeks to conduct the --

2 A I have no idea.

3 THE COURT: Is this voir dire or is this  
4 cross-examination?

5 MS. LACY: I'm trying to establish -- what I'm  
6 trying to establish, he has very little actual hands-on  
7 election experience, and my understanding, this morning, he  
8 was on a canvass board but it was fairly disastrous.

9 THE WITNESS: I didn't finish my answer, if I may,  
10 Judge?

11 MS. LACY: I'm finished asking that particular  
12 question.

13 THE COURT: I think that the 702 standard is a low  
14 hurdle, and I'm not quite sure what his field is, but that's  
15 why I don't think that a lawyer needs to move to have a  
16 witness qualified as an expert, because the red flag goes up  
17 when you ask the question that requires opinion testimony.

18 So, for example, if he were to -- if his lawyer  
19 were to ask a question about the weather, then you would  
20 say, "No foundation. He is not qualified to express an  
21 opinion about the weather."

22 I'm not quite sure what he is qualified as here,  
23 but it has something to do with computer --

24 MS. LACY: He is asking to have him qualified as  
25 an expert in election and voting systems, which is extremely

1 broad. Maybe I can ask simpler questions to narrow it.

2 THE COURT: I don't want you to cross-examine him.  
3 He has got some expertise that qualify him under the  
4 standard of 702 Rules of Evidence.

5 I'm going to let him stress some opinions, if what  
6 he is testifying to so far, his expertise are in that field;  
7 otherwise I won't let him testify to anything. It is just  
8 not relevant.

9 MS. LACY: I'm going to ask him a couple of quick  
10 questions. If you want me to discontinue, I'm happy to do  
11 that and follow up as questions arise.

12 THE COURT: Okay.

13 Q (By Ms. Lacy) So you never established a security  
14 plan for running, executing an election?

15 A I have challenged this security plan for conduct  
16 of Boulder County elections, and I've also challenged the  
17 Secretary of State's security plan for the new statewide --

18 Q I'm aware --

19 A When I say "challenge," written technical material  
20 that explains the problems with those systems.

21 Q I realize you've challenged many actions taken by  
22 the Secretary of State in the county. I'm asking you if you  
23 participated in a hands-on way in executing those plans?

24 A If you are asking me if I have been an elected  
25 official in a clerk's office, no.

1 Q Have you been employed by a county clerk or  
2 recorder or any professional capacity with respect to  
3 election?

4 A No, but it is the case that it does not require  
5 being employed to have knowledge.

6 Q Have you ever been invited to speak by the  
7 legislature or have you just appeared?

8 A Representative Shultion (phonetic), from Colorado  
9 Springs, has requested that I sketch out the bullet points  
10 for new voting law.

11 Q Have you ever participated in setting up a polling  
12 place?

13 A I don't think so.

14 Q Have you ever prepared ballots for printing?

15 A I don't think so.

16 Q You mentioned --

17 A I have identified problems with ballots for  
18 printing.

19 Q You mentioned CAMBER. How many active  
20 participating members are in CAMBER?

21 A It's very hard to tell. It is a volunteer group.  
22 It is e-mail and we don't have meetings. We don't have  
23 dues. We don't have anything measuring --

24 Q You basically have people who receive a monthly  
25 newsletter?

1 A And take action.

2 Q Are you paid as director of this organization?

3 A No.

4 Q Have you ever been a paid consultant advising on  
5 voting or election matters by a government agency conducting  
6 an election?

7 A I was paid to serve as a canvass board member.

8 Q Isn't that a nominal fee of \$13?

9 A No.

10 Q That is -- appointed position you said?

11 A I was appointed by the Republican Party to serve  
12 in that position.

13 Q Thank you. Your resume states you provided  
14 testimony to state and local legislative bodies. Which  
15 legislative bodies did you provide testimony to?

16 A The House, the Ferris Committee, the Senate  
17 Government Affairs Committee.

18 Q What was the subject matter of your testimony?

19 A Particular bills that were before the legislator.

20 Q Dealing with voter registration?

21 A More broadly. The more recent bill that I recall  
22 working on is dealing with the Heap American Vote Act. I  
23 serve as a member of the national group developing voting  
24 systems standards. It is group within the I Triple E, which  
25 is professional association which has been for a number of

1 years now working for developing standards for developing  
2 action.

3 Q You said member of national group developing  
4 standard for IEEE. What's the national group?

5 A IEEE is the group. It's the International  
6 Electrical Engineers. And the group has been charged with  
7 tasks, if you will, with developing a set of standards for  
8 voting equipment in particular areas and I've been serving  
9 on that committee for a number of years.

10 Q Isn't it true there have been sixteen meetings of  
11 IEEE and you attended five?

12 A That's not true. We have a method of --

13 THE COURT: This is cross-examination. This isn't  
14 going to his qualifications expressing opinion.

15 Q (By Ms. Lacy) With respect to voting systems,  
16 your resume indicates you reautomatic banking systems. Have  
17 you professionally in a paid capacity -- have you in a paid  
18 capacity conducted electronic voting systems analysis?

19 A As I told you, everything I do has been volunteer.

20 Q Have you designed or developed any electronic  
21 voting systems?

22 A Yes. We have designed a comprehensive vote  
23 recording and vote counting system.

24 Q Is that actually in use anywhere?

25 A No, it is -- it is a design that is intended to be

1 used by the public at no cost in order to model new voting  
2 equipment.

3 Q Have you ever created electronic voting system or  
4 any type of voting system?

5 A Other than what I just explained?

6 MR. CORRY: Asked and answered.

7 THE COURT: Sustained.

8 MS. LACY: Thank you. We will continue our  
9 objection to his status as an expert.

10 THE COURT: Well, there are some things he may be  
11 qualified to express his opinions on. So, he may be asked  
12 opinion questions, and if you think there is no foundation  
13 in that he is not qualified, make your objection.

14 DIRECT EXAMINATION (CONTINUED)

15 BY MR. CORRY:

16 Q Mr. Kowlicz, you are a resident of Boulder County?

17 A That's correct.

18 Q You intend to vote this election?

19 A That is correct.

20 Q And are you familiar with the Hart InterCivic  
21 System that Boulder County intends to use for this general  
22 system?

23 A Yes.

24 Q And were you here for most of Ms. Salas's  
25 testimony yesterday?



1           A     I was here for part of it. I don't know how much.

2           Q     Did the part you were here for, did you understand  
3 her description of the testimony and how it is going to be  
4 used?

5           A     Yes, I did.

6           Q     And could you point out -- based on your  
7 experience and what you observed and heard, could you point  
8 out the opportunity that a poll worker or poll watcher might  
9 have to take down serial numbers in this election coming up  
10 under that system?

11          A     Yes, I can. Under the current election rules and  
12 statutes, there is a provision for a person or persons,  
13 called poll watchers. Poll watchers are explicitly  
14 permitted to make a list of all of the voters that vote at a  
15 precinct or however they can collect this information.

16                 Typically that information is used by political  
17 parties in "get out the vote" campaigns so the political  
18 party can know which of the voters have voted and which has  
19 not.

20                 THE COURT: That has been true forever.

21                 THE WITNESS: That is correct.

22                 THE COURT: "Forever" in, since I've been voting.

23                 THE WITNESS: The method that one might use to  
24 learn a particularly valuable list of information would  
25 proceed as follows.

1           I would like to learn the serial number of every  
2 voter who votes in this precinct, so I get in line as a poll  
3 watcher to vote first in that precinct. And in voting  
4 first, I write down the serial number of the ballot that I'm  
5 given. I stay in the precinct for the duration of the day  
6 recording in sequence the names of all the voters who come  
7 into that precinct to vote.

8           The ballots are assigned sequentially. If I want  
9 to find out the serial number of the 10th voter, I take my  
10 serial number and add a constraint to that and come up with  
11 the serial number of any particular voter.

12         Q     (By Mr. Corry) As a poll watcher you get to see  
13 the order in which ballots --

14         A     All --

15         Q     -- are handed out?

16         A     Yes.

17         Q     It is perfectly legal for you to write down  
18 everything that goes on that day as a poll watcher?

19         A     Not only legal in intuition, but it is legal  
20 explicitly. It is explicitly permitted for poll watchers to  
21 make such a list.

22         Q     In your experience, that does happen quite  
23 frequently?

24         A     That poll watchers make a list? Absolutely.

25         Q     Is that their whole reason for being there?

1           A     No.  Their reason for being there is to get out  
2 the vote, but I'm trying to identify for the Court an  
3 opportunity to exist in the current voting system that is  
4 not seen as the probable, highly improbably finding  
5 particular ballots appearing on the wall.  I'm trying to  
6 show the Court that it is possible methodically to create  
7 lists of voter names and ballot numbers.

8           Q     What other opportunities would there be for these  
9 serial numbers to become known?

10          A     The voter themselves can obviously learn the  
11 serial number of the ballot that they voted.

12          Q     Any other opportunities?

13          A     I haven't tried to be exhaustive, I've tried to  
14 identify one or two particular opportunities.

15          Q     Are there any other ways that these serial numbers  
16 could come out?

17          A     The election staff, when they -- well, let me say,  
18 in the allocation of absentee ballots, people make  
19 applications for absentee ballots in sequence and the  
20 ballots are issued.  It is possible that somebody on the  
21 inside of the operation could maintain a list of which  
22 person got which absentee ballot and that could be done  
23 essentially.

24          Q     And do you understand how the data is compiled by  
25 the Boulder clerk under this Hart InterCivic system that

1 we've been talking about?

2 A Yes. The, when the ballots are voted, they are  
3 brought to a computer system of which there are eight, and  
4 these computer systems scan a ballot -- batch of ballots and  
5 make an image of each ballot on a computer file. So there  
6 exists a file with every single ballot image and every  
7 ballot image includes the serial number.

8 So if the ballot consisted of three pages, for  
9 example, all three pages would be essentially photographed  
10 and recorded on a disk. That data exists forever, now until  
11 it is destroyed.

12 Q Does that data have any value in your experience  
13 with elections in voter systems?

14 A That data does have enormous value --

15 Q Why?

16 A If you took the combination of the list of people  
17 and serial numbers and combined it with the data file  
18 consisting of the serial number and the ballot image, one  
19 could assemble a data set linked to the voter registration  
20 records which would tell you everything about that person  
21 and how they vote.

22 So, to be able to purchase that kind of  
23 information would be highly, highly valuable. Also --

24 Q Who would want to purchase that information?

25 A People running political campaigns so they know

1 how to bias their messages, for example.

2 Q Who would they purchase that information from?

3 A Anybody who could assemble this information.

4 Q And could it be used by somebody to intimidate  
5 voters?

6 A Absolutely.

7 Q How would that happen?

8 A I would -- I would, let's say -- let me use an  
9 example. I don't want to go into details, but let's say I  
10 take a church group or a membership group or a union hall,  
11 and the leader of these places tells the members if you  
12 don't vote the way we want you to vote, you are going to  
13 have a hard time here in the future.

14 And we have ways to determine whether or not you  
15 do what we say. So when you vote, I want you to tell me the  
16 serial number that you are voting, and I have the ability to  
17 check to see that you voted the way I told you to vote. And  
18 if you don't vote this way, forget about ever getting  
19 another job. Forget about going to heaven, forgot about  
20 whatever it is that is important to you.

21 Q Would it be possible to do that if there were no  
22 serial numbers or bar code on the ballot?

23 A I'm sure it could be attempted, but it could be  
24 attempted to intimidate the voter. But we have reason, you  
25 know, I wouldn't say facts to believe, but we can

1 extrapolate that a voter can promise the intimidator, I  
2 voted exactly as you said and then smile in the private  
3 voting booth and vote the way the voter wanted.

4           Without the serial number, the voter can get away  
5 with that. With the serial number, you've stolen the  
6 opportunity for the voter to hide his vote.

7           Q     Without the serial number you are saying there is  
8 no feedback, no verification mechanism for the intimidator  
9 to use?

10          A     Correct. Correct. It is also true that votes can  
11 be bought and sold because of the serial number. If a  
12 interested group sent out a message to its members, for  
13 example, that we can get X thousands of dollars from a donor  
14 if we all vote a certain way, and all you have to do is tell  
15 me your serial numbers and vote this way, and I can provide  
16 that list of serial numbers to the buyer and the buyer  
17 claims he has a way to check it. He will give us X  
18 thousands of dollars if we will deliver these votes.

19          Q     Is the problem with the serial number it provides  
20 the mechanism for that type of chicanery to occur?

21          A     Precisely. Precisely.

22          Q     What about the opportunity for this to occur? How  
23 would that happen given your understanding of how the Hart  
24 InterCivic scan valid and records a digital image?

25          A     Since it is possible easily to create the list of

1 voter and serial number pairs, and while difficult, it is  
2 possible because of the existence of this scanned images to  
3 access that file either in its controlled location or in one  
4 of its backup copies that might be stored off site.

5           We know that even vital national data held at  
6 locations, supposedly secured, such as Los Alamos has been  
7 unable to hold on to its data. The FBI computers have been  
8 hacked. Everybody in the industry understands that it is  
9 not possible yet to guarantee that data is held secured.

10           So the opportunity for taking the list of voter  
11 and serial numbers and matching it with data that is either  
12 stolen or hacked or somehow otherwise gotten to get those  
13 images, opens up the opportunity.

14           Q     So, in your opinion then, based on your knowledge  
15 of this system, are ballots marked in a way whereby the  
16 ballot can be identified as the ballot of the person casting  
17 it under the current --

18           A     Yes, they can.

19           Q     Okay. And could you tell the Judge briefly how  
20 this system might be corrected or fixed in order to protect  
21 voter secrecy?

22           A     In the system that we have described, we too have  
23 a serial number on the ballots. We too scan the ballots to  
24 the hard drive. The difference is that instead of having  
25 the serial number applied at the time of the voter marking

1 the ballot, we apply the number on the anonymous ballots  
2 after the voter has left and after it is impossible to put  
3 it back together again.

4 Q Are there any other ways that this system could be  
5 fixed for purposes of the general election in 2004 to  
6 protect secrecy?

7 A I don't know. I don't know. I don't know how to  
8 fix this system to make it work for this election.

9 Q All right.

10 MR. CORRY: Thank you. I've got no further  
11 questions.

12 THE COURT: Cross-examine?

13 CROSS-EXAMINATION

14 BY MS. LACY:

15 Q When you mention, Mr. Kowlicz, this system that --  
16 is it the one you have devised that would scan to the hard  
17 drive a serial number only after the marking, this is the  
18 system that you have devised?

19 A Yes. When I say, "me," I don't mean me  
20 personally. I mean me in conjunction with others. Without  
21 going into detail of the vote marking process, which is  
22 itself very important, assume that there is a box of  
23 anonymous ballots, ballots have that no serial numbers on  
24 them, ballots that have been marked by voters; the election  
25 accounts officials open the box, shuffle the ballots, they



1 put them into a scanning system that has an endorser devise  
2 on the scanning system and each ballot as it is scanned is  
3 marked with a batch number and serial number. That batch  
4 number and serial number, as is in the Hart system, is  
5 actually scanned on the image that is recorded on the hard  
6 drive.

7 Q Have you --

8 A The hard drive records are then processed by  
9 software. The software attempts to understand the votes on  
10 the ballots. It creates a file of vote records, one per  
11 ballot, linked through the serial number and it then  
12 displays every ballot with the linked record showing how the  
13 system interpreted the votes.

14 Q My question is going to be, have you developed a  
15 prototype of this? Have you been able to develop something  
16 that people can see and use and you can mark it, and has  
17 anyone shown interest in this product?

18 A We have not reached that level. We have simply  
19 described it to the technical community.

20 Q I must say it sounds very good, but the fact is,  
21 it is not available yet.

22 A That is correct. It is not an alternative that is  
23 available today.

24 Q Thank you.

25 A There is a -- there are pieces of this that are

1 available today.

2 Q Okay. Thank you. So the scenario that you  
3 painted here is that, first of all, you have to have the  
4 information, the vote; you have to collect the information  
5 and somehow tie the voter name to sequence number through  
6 this effort you describe at the polling place. And then  
7 after that time, then you set -- then you express concern  
8 about someone hacking into the computer itself and getting  
9 into -- and getting the database, getting the data file; is  
10 that correct?

11 A Almost. I mentioned hacking, and I think I also  
12 mentioned internal access.

13 Q Okay. Are you aware it would certainly be a crime  
14 for someone to do something like that?

15 A Yes. In fact, we know it is crime to register  
16 numbers of people multiple times and people do it all the  
17 time.

18 Q Isn't it true that person would somehow have to  
19 access a system that would be locked away in a secured  
20 place?

21 A I don't know about the locked away in a secured  
22 place, but it does require some form of access by an  
23 employee, by a temporary worker, by a maintenance worker, by  
24 anybody that could access this.

25 Q Are you aware that, that the systems aren't

1 readily available? You would have to break in or some how  
2 have to have access, break into the secured system that is  
3 in place, the physical security?

4 A I couldn't say that the systems are secured, no.

5 Q Are you aware it has a password to get into the  
6 computer?

7 A Most computers.

8 Q And user name as well and auto log that tracks all  
9 the events on the system?

10 A Uh-huh. Yes.

11 Q You also expressed concern that individuals would  
12 start buying and selling votes, but I'm sure you're aware if  
13 that were to happen, it would be much, much easier to do  
14 that using absentee ballots that was testified to yesterday?

15 A (Indicated.)

16 Q How do you explain that there has never been a  
17 complaint by a single voter that someone tried to bribe them  
18 to sell their vote?

19 A That is not true. That is just not true. There  
20 is -- National Public Radio two years ago did an enormous  
21 story on that topic.

22 Q Are you aware there has never been a complaint in  
23 Boulder?

24 A No, I'm not aware, but I'm aware that Boulder  
25 County and the Secretary of State do not respond to

1 complaints.

2 Q Are you aware at the primary, the ballots were  
3 pulled randomly rather than in order?

4 A I know for a fact that that is not true in most of  
5 the precincts.

6 MS.LACY: Thank you.

7 MS. MIRBABA: I have no questions.

8 THE COURT: Any redirect?

9 MR. CORRY: Just one question, briefly.

10 REDIRECT EXAMINATION

11 BY MR. CORRY:

12 Q Is the problem, Mr. Kowlicz, that there is  
13 increased incentive, financial incentive, under the new  
14 system to commit these crimes of improprieties; is that part  
15 of the problem?

16 A I believe that to be the case, personally.

17 Q Why is that a problem or -- why is there increased  
18 incentive?

19 A Because it is -- because the voter is not  
20 permitted to cast an anonymous ballot. It puts together a  
21 linkage that before was impossible; and now that this  
22 linkage is in place, I believe it will be exploited.

23 MR. CORRY: Thank you. Nothing further.

24 THE COURT: Okay. Any other witnesses?

25 MR. CORRY: We do. The Plaintiffs would call Jay

1 Keany, who is also a Plaintiff.

2 JOHN JAMES KEANY, III,  
3 called as a witness on behalf of the Plaintiff, having been  
4 first duly sworn, upon his oath, testified as follows:

5 THE COURT: Be seated and state your name and  
6 spell it.

7 THE WITNESS: My formal name is John James Keany,  
8 K-E-A-N-Y, III and I usually go by Jay.

9 DIRECT EXAMINATION

10 BY MR. CORRY:

11 Q Good morning, Mr. Keany. Thanks for your patience  
12 in waiting yesterday and today. We know you are busy. Are  
13 you a Boulder County resident?

14 A I am.

15 Q Are you registered to vote here?

16 A I am.

17 Q Do you plan to vote in the upcoming election?

18 A I do.

19 Q Do you serve in any official elective position in  
20 Boulder County?

21 A Elective as in the process of the election or  
22 elected official?

23 Q Elected person?

24 A City councilperson in Louisville.

25 Q How many times have you run for city council in

1 Louisville?

2 A Three times.

3 Q What happened with those three election?

4 A The first election was a recount election because  
5 it was so close. The second election, I won by 50 percent.  
6 The third election was also a mandatory recount because it  
7 was so close.

8 Q Let's talk a little bit about the recount  
9 elections. The first one, how close was it?

10 A It's been quite a few years, but I believe it was  
11 eight votes.

12 Q Out of how many total cast approximately?

13 A I think it was 1800. It was less than one half of  
14 one percent of the total number of ballots cast.

15 Q What happens in a recount?

16 A In a recount, the ballots, my understanding, I'm  
17 not an expert in this, but my understanding is the ballots  
18 are fed back through the same equipment that they are fed  
19 through the first time, and if the number comes up the same  
20 then it is assumed it is correct, if it comes up different  
21 it is run a third time, if it still comes up wrong there are  
22 other means of counting them. That is my understanding. As  
23 I said, I don't know for sure.

24 Q What was your involvement in the recounts? Were  
25 you present?

1           A     I was present. I did not observe the counts, but  
2 I was present at the recount.

3           Q     Did you have representative campaign workers,  
4 people like that who were present also?

5           A     I don't remember. There were probably people --  
6 actually I don't remember. I believe it was just the  
7 candidates that were allowed to be there or its  
8 representative.

9           Q     Is the recount an open process, open to the  
10 candidates themselves who are involved in the recount?

11          A     I don't understand the question.

12          Q     When you were there, were you able to observe the  
13 votes being fed into the machine and were you able to  
14 observe the results firsthand?

15          A     I don't believe with the first -- I don't believe  
16 that I was actually there watching it being fed into the  
17 machine. I was present to see the results tallied. And if  
18 I could, I can go a step further, my understanding is that  
19 if I still contested I could go to court and see the ballots  
20 physically to count them by hand to make sure they were  
21 accurate.

22          Q     That was your understanding of something that  
23 could have been available to you?

24          A     I believe so.

25          Q     Okay. And what is your understanding -- well,

1 let's talk a little bit about the second recount you were  
2 involved with. Was that different in any way than the first  
3 one?

4 A It was still the same system, the old punch card  
5 system, it was not quite as close but still a recount. And  
6 I believe if I or my opponent had contested it through the  
7 courts, that could require a manual count.

8 MS. LACY: I'm going to objection to lack of  
9 foundation, because he is testifying on the law on what he  
10 thinks a court would do.

11 THE COURT: Sustained.

12 Q (By Mr. Corry) You were here for the testimony of  
13 Ms. Salas yesterday?

14 A Part of it.

15 Q And did you understand what she was talking about  
16 in explaining the voting system?

17 A I believe so.

18 Q And do you also have independent knowledge about  
19 this new system that Boulder County has adopted?

20 A What I read about it and heard from other people.  
21 I don't have firsthand knowledge of it.

22 Q Did you vote in the primary election --

23 A I did not.

24 Q -- this time? And based on your understanding of  
25 the system, are ballots marked in any way whereby the ballot



1 can be identified by the ballot by the person casting it?

2 A My understanding is the ballots, and I observed  
3 examples of them, have a serial number on every ballot so  
4 each ballot is individually marked with a serial number.

5 Q It's your understanding -- is that a unique serial  
6 number for each ballot?

7 A That's my belief, yes.

8 Q Could you explain how the write-in process works  
9 in elections?

10 A The write-in candidate has to be certified as an  
11 official candidate and then there would be a blank printed  
12 on the ballot for that write-in candidate for people to  
13 write that name in.

14 If a -- say if there are no certified candidates  
15 for write-in position, then there would be no blank there.

16 Q And to count those write-in votes under the new  
17 system --

18 MS. LACY: I'm going to object. Lack of  
19 foundation with respect to how you count write-in ballots.

20 THE COURT: Sustained.

21 MR. CORRY: He testified he is a candidate and he  
22 understands how the system works. He was here for the  
23 testimony.

24 THE COURT: The objection is sustained.

25 MR. CORRY: Okay. No further questions.

1 THE COURT: Cross examine.

2 MS. LACY: Just one question, I think.

3 CROSS-EXAMINATION

4 BY MS. LACY:

5 Q Mr. Keany, you suggested that you thought the  
6 ballots might be available under Open Records Act request.  
7 Is that -- are you aware the Secretary of State takes the  
8 position that ballots are not available under the Open  
9 Records --

10 A Actually, that's not what I stated.

11 Q I'm sorry. Repeat yourself.

12 A I believe that if a candidate believes that the  
13 recount -- my understanding, from my experience, is if the  
14 candidate still disagrees with the equipment or the number  
15 continues to come up incorrectly or different, then the  
16 candidate can request a hand count as opposed --

17 Q Since you are testifying to this, are you aware  
18 that the statute requires that any recount be conducted in  
19 the same manner as the original count? Are you aware that  
20 the only time a hand recount could occur is if the equipment  
21 continues -- is malfunctioning and continues to malfunction  
22 and it requires the Secretary of State order --

23 MR. CORRY: Same objection she made. She is now  
24 asking him for a legal conclusion.

25 THE COURT: Sustained.

1 MS. LACY: Thank you. No further questions.

2 THE COURT: You may step down. Any other  
3 witnesses?

4 MR. CORRY: Yes. Plaintiffs call Ralph Shnelvar.

5 RALPH SHNELVAR,  
6 called as a witness on behalf of the Plaintiff, having been  
7 first duly sworn, upon his oath, testified as follows:

8 THE COURT: You may be seated. Please state your  
9 name and spell it.

10 THE WITNESS: Ralph S-H-N-E-L-V, as in Victor,  
11 A-R.

12 DIRECT EXAMINATION

13 BY MR. CORRY:

14 Q Good morning, Mr. Shnelvar. Are you a resident of  
15 Boulder County?

16 A Yes, I am.

17 Q Are you registered to vote?

18 A Yes, I am.

19 Q Do you intend to vote in this general election in  
20 2004 --

21 A Yes, I do.

22 Q -- in -- in 2004. What are your qualifications in  
23 the area of computer software and as a politician?

24 A I have been writing computer software since I was  
25 18; I'm now 54. I write backup software, some of which has

1 been awarded one of the best 100 products of the year  
2 specifically by PC Magazine in 1994 for product coal tape  
3 disk. In terms of politics, I ran for governor under the  
4 Libertarian Party ticket in 2002.

5 Q Do you feel, given your decades of experience in  
6 writing software, do you feel you're knowledgeable in how  
7 computer software works and how data works and is compiled?

8 A That is correct. I believe I'm so knowledgeable.

9 Q And campaigning for governor, that is a statewide  
10 office obviously, do you feel like you're qualified to  
11 discuss politics and knowledgeable about politics and how it  
12 works?

13 A I believe I am. I participated -- I spent a full  
14 year of my life campaigning statewide, and I met with  
15 thousands and thousands and thousands of voters.

16 Q And do you feel like you understand voter behavior  
17 and at what -- what some voters are thinking and why they  
18 vote certain ways?

19 A Yes, I do.

20 MS.LACY: Speculative.

21 THE WITNESS: May I respond to that?

22 THE COURT: No.

23 MR. CORRY: No. That's okay. I'll move on.

24 Q (By Mr. Corry) You were present yesterday  
25 for the testimony of Ms. Salas and the other

1 witnesses that the government called.

2 A Yes, I was.

3 Q Do you feel like you understand at least their  
4 descriptions of the new system that Boulder County is going  
5 to be using to count votes in this election?

6 A Although I'm not particularly familiar with the  
7 specifics of this system, I have enough broad-based computer  
8 knowledge to understand computer systems in general.

9 Q Okay. And did you -- do you remember hearing the  
10 representative of Hart InterCivic state that the serial  
11 number on the ballot is connected internally to the, quote,  
12 ballot image; do you remember that?

13 A Yes, I do remember hearing that.

14 Q And do you remember hearing him say that it would  
15 not be possible to fetch a ballot given a serial number?

16 A Yes, I do recall hearing that.

17 Q What is your -- what do you think about that  
18 comment?

19 A I would -- it is my opinion that this is a  
20 glossing --

21 MS. LACY: I'm going object to him providing an  
22 opinion. He is not familiar with the Hart software but  
23 generally with how software works.

24 THE COURT: Lay a better software -- lay a better  
25 foundation.

1           Q     (By Mr. Corry) Does your experience in writing  
2 software give you any particular knowledge of what the Hart  
3 InterCivic representative was saying yesterday?

4           A     Yes. I write -- as I indicated before, I write  
5 backup software in which people use my software to restore  
6 their computer system to a healthy state or to a state prior  
7 to some other event.

8                     As such, I am familiar with general database  
9 theory. I'm familiar with how -- how software works when  
10 you try to fetch particular pieces of information off of a  
11 computer disk.

12          Q     Does the knowledge you have about your decades of  
13 experience in this area translate over into understanding  
14 Boulder's Hart InterCivic system?

15          A     It translates -- the answer -- the short answer to  
16 that is, yes; the longer answer is that this kind of general  
17 knowledge applies to almost -- let me try again -- applies  
18 to all computer systems.

19          Q     It is basically common sense for somebody who  
20 understands computer and software to understand what the  
21 Hart InterCivic system does?

22          A     Any first year student in computer science should  
23 be able to understand the veracity or lack thereof of the  
24 statement made yesterday.

25          Q     And given your understanding and decades long

1 experience with computers and software, what do you think  
2 about Hart InterCivic's representative's statement that it  
3 is not possible to fetch a ballot given a serial number?

4 MS. LACY: I'm going to restate my objection for  
5 the record.

6 THE COURT: To goes to weight, not admissibility.  
7 Objection is overruled.

8 MR. CORRY: You can answer.

9 THE WITNESS: Any first year graduate student  
10 would be able to, given a data file, given access to a data  
11 file assuming that the data file is unencrypted, which, of  
12 course, it would be because the Hart InterCivic Systems  
13 counting these ballot images would be able to run through  
14 the data file virtually within seconds and fetch a  
15 particular ballot image -- again, that is term of art -- and  
16 show the votes cast given the serial number.

17 The fact that the Hart InterCivic system refuses  
18 to do so, says that they have implemented certain procedures  
19 preventing the user from using it, rather than from any sort  
20 of internal inability to do so.

21 If they did not have the ability to match the  
22 serial number to the ballot, and they have already said they  
23 do, then they would not be able to count the votes.

24 Q (By Mr. Corry) And if someone were to  
25 surreptitiously make a copy of the data stored in the

1 database, how would they do it and how hard would it be to  
2 transport it?

3       A     I'm going to speak to the -- I sometimes transport  
4 data from my clients to my office, and this is an example,  
5 Your Honor, if a computer hard drive -- this is large enough  
6 to store, if I choose to do so, if I had access to internals  
7 of a machine, every single ballot image, that is the  
8 photographic image of all the ballots cast in the county of  
9 Boulder. This is about \$200, \$300 at Costco or the computer  
10 store of your choice.

11             If a person who had physical access to the machine  
12 decided to put this in, make a copy of the contents of the  
13 hard drive, they could do so. That is what my software  
14 does, it makes copies of hard drives.

15       Q     Just, if I may interrupt, let the record reflect  
16 that the witness is holding up something that is probably  
17 five inches long, half inch tall, and three inches wide.

18       A     Easily fits into a coat pocket. On the other  
19 hand, if I wanted to surreptitiously, or not  
20 surreptitiously, make a copy of some data on somebody's  
21 computer, this is a camera. This is a cable. I could hook  
22 that camera to the computer, assuming it had a port, and  
23 make copies that way. Again, it would require access to the  
24 computer to do so. It requires physical access to do so.

25             This, Your Honor, is to give you an idea of data



1 density capable today. This is every single, every single  
2 voter registration in the state of Colorado. This has phone  
3 numbers, zip codes, addresses, party affiliation, all the  
4 information that the Secretary of State is interested in --

5 Q If I could --

6 A Only 2/3 of that is -- only 2/3 of this is full.

7 Q If I could briefly interrupt and let the record  
8 reflect that the witness has held up a standard CD-Rom disk.

9 A And lastly, if I wanted to record all the ballot  
10 images, just the information, this is something I could  
11 place on my tongue, is what I could store it on.

12 Whether, again, whether or not I have physical  
13 access is the critical piece.

14 Q And, third, let the record reflect that the  
15 witness showed a small disk that he got from a digital  
16 camera that is approximately --

17 A An eighth of an inch tall.

18 Q Inch square. And who would be able to  
19 surreptitiously take a copy of this data?

20 A Anybody who has physical access to the drive -- to  
21 the computer.

22 Q When would they be able to do this?

23 A It would take to copy this all the data on the  
24 physical drive -- and I'm over at somebody's house or  
25 somebody's place of business -- half hour. That is the

1 whole thing. Depending on the amount of data, half hour to  
2 30 seconds.

3 Q Where could they do it from?

4 A That is an extremely good question. They,  
5 depending on the physical conductivity of this, they could  
6 do it easily in front of the computer, or if the computer  
7 was somehow surreptitiously connected to modem for radio  
8 frequency ID devise or to a card that is -- was  
9 surreptitiously placed inside the computer that would give  
10 wireless access, there are lots and lots and lots of ways.

11 And what is -- is important, unlike the event at  
12 National Lab in Los Alamos, if I came in with this disk  
13 drive and left with this disk drive, there would be no  
14 record whatsoever including any access logs that the copy  
15 had been made because the copy would be made external to the  
16 mechanisms that were in place to prevent that.

17 Q So prosecuting a crime of this would be difficult?

18 A It would probably never be detected. The fact  
19 that they lost disks at Los Alamos National Labs is of  
20 some -- somebody screwed up. They should have just made a  
21 copy.

22 Q And why would somebody want to copy the  
23 information in the Boulder system?

24 A In my -- although I do not do something called  
25 data mining, it is well known in my profession. That's data

1 that is linked up to other data and can provide extremely  
2 valuable information. It's the reason why, when you go to  
3 Safeway or King Soopers or whatever, and they give you a  
4 discount on what it is that you are purchasing when you  
5 swipe your credit card and give them your ID, similar to a  
6 serial number on your ballot. They are mining your data.  
7 They are finding out what your preferences are.

8 I, as a candidate, spent thousands of dollars of  
9 my time and my contributor's time gathering that information  
10 which would, at best, be speculative.

11 Focus groups, people just don't tell you what  
12 they're really thinking. They slight two things that they  
13 might want you to hear. If I knew what my voters wanted  
14 exactly, those who voted for me and those who didn't, that  
15 would be extremely valuable information.

16 Q Is that problem evident in every computer based  
17 voting system?

18 A Could you please rephrase?

19 Q Well, we are talking about Boulder's, but let's  
20 say there was computer-based system that is not used by  
21 Boulder but used by a different county in Colorado; are the  
22 problems you pointed out equally evident in those computer  
23 systems?

24 A If there is no way to link a person's name and  
25 serial number to, for instance, whether or not they buy

1 Wheaties, the Wheaties manufacturing might have interest  
2 that people who vote Republican like raisins in their  
3 cereal. That is the entire purpose of data mining. This  
4 information is not only of interest to candidates, it is of  
5 commercial interest. It is why companies buy motor vehicle  
6 registration lists.

7 Q Is that why the serial number makes Boulder's  
8 system worse?

9 A That is correct. The serial -- the presence of  
10 that serial number, as Mr. Kowlicz has pointed out, allows  
11 the linkage, however tenuous, between the voter and his  
12 votes. The fact that it is tenuous -- in my industry we  
13 work in extremely remote possibilities, Your Honor, you  
14 expressed yesterday your dis -- your -- the statement that a  
15 -- an event that occurs rarely is something of little  
16 concern, but my industry, events that occur very, very  
17 rarely are exactly the things that people exploit.

18 Your Honor must be familiar with computer viruses  
19 and vast amounts of effort spent by people who have almost  
20 no financial interest in computer viruses and what happens  
21 in that computer but just for the thrill of screwing things  
22 up.

23 Your Honor probably, if he has access to the  
24 Internet, may not be aware that his computer is infected  
25 with a whole host, maybe, probably is in my opinion, whole

1 host of things call spyware or malware which you enter on  
2 your computer.

3 MS. LACY: Your Honor, this is turning into  
4 narrative.

5 THE WITNESS: My apologies.

6 MR. CORRY: I'll break it up.

7 Q (By Mr. Corry) How does the use of a serial  
8 number or distinguishing marks make this kind of virus or  
9 spyware or malware easier?

10 A Because one can spend huge amounts of efforts and  
11 one typically, and even in the software industry, try to  
12 match people's preferences. It's the whole point of data  
13 mining.

14 You -- you go through enormous amounts of effort  
15 to do that sort of thing. I've had personal experience of  
16 this, and I did not mention this to you prior, but we -- I  
17 was peripherally involved in something called bionic data  
18 set. It was an event that occurred about 20 or 30 years  
19 ago.

20 My recollection of the details are fuzzy, but  
21 basically what it was, is that some data was being collected  
22 by the Department of Labor, to which I was a consultant, and  
23 the data did not have any identifying information  
24 whatsoever. But by noting where the people lived, and by  
25 breaking down this information, the gatherers of this data

1 set were able to actually identify individuals because they  
2 wanted to continue what was called a longitudinal --  
3 longitudinal analysis. They wanted to track people over  
4 time, and someone screwed up and lost that information.  
5 They spent \$6 million at it and hence the reason for the  
6 bionic data set of the Six Million Dollar Man.

7 Q Is there more incentive, financial incentive,  
8 then, for somebody to steal this data?

9 A There is huge financial incentive to steal this  
10 data. There is huge financial -- incentive to manipulate  
11 this data.

12 Q Based on your understanding of Boulder County's  
13 system as a voter yourself, do you believe that the current  
14 ballots with the serial numbers on them are marked in a way  
15 whereby the ballot can be identify as the ballot of the  
16 person casting it?

17 A I think it is, to me, plain English clear that if  
18 I know my serial number and I tell that to somebody, that  
19 the ballot has been marked in a way that distinguishes it  
20 and can identify me.

21 Q And in your capacity as a candidate for governor,  
22 could you comment on how you think that voters will react to  
23 knowing that there is a serial number on their ballots?

24 MS. LACY: I objection, Your Honor --

25 THE COURT: Sustained.

1           Q     (By Mr. Corry) When you ran for governor,  
2 did you talk to voters?

3           A     Yes, I did. Many.

4           Q     Do you understand how voters think about voting  
5 and why they vote a certain way?

6           MS. LACY: Object on the same basis.

7           THE COURT: Sustained. Boy, that is a good one.  
8 That is really a good one.

9           MR. CORRY: Well, he is a candidate.

10          THE COURT: We all have opinions about that one, I  
11 betcha.

12          MR. CORRY: I figured he could talk about that,  
13 but on that note, no further questions.

14          MS. LACY: Your Honor, I think I prefer to address  
15 this on rebuttal rather than on cross, the issues that have  
16 been raised by Mr. Shnelvar.

17          THE COURT: So you don't want to cross examine  
18 him?

19          MS. LACY: I don't want to cross examine him.

20          THE COURT: Okay. You may step down. And any  
21 other witnesses?

22          MR. CORRY: One last witness. We call the  
23 Plaintiff, Dean Schooler.

24                                 DEAN SCHOOLER, JR.,  
25 called as a witness on behalf of the Plaintiff, himself,

1 having been first duly sworn, upon his oath, testified as  
2 follows:

3 THE COURT: Please state your name and spell it.

4 THE WITNESS: Formally I go by Seward Dean  
5 Schooler, Jr., but most folks call be Dean Schooler, D-E-A-N  
6 S-C-H-O-O-L-E-R.

7 DIRECT EXAMINATION

8 BY MR. CORRY:

9 Q Good morning, Mr. Schooler. Are you a resident of  
10 Boulder County?

11 A I am.

12 Q Are you registered to vote here?

13 A I am.

14 Q And do you plan to vote in the general election in  
15 November?

16 A I do.

17 Q And did you vote in the primary election?

18 A I chose not to vote in the primary election.

19 Q And why did you choose not to vote in the primary  
20 election?

21 A I chose --

22 MS. LACY: Your Honor, I'm going to object because  
23 I'm not sure how this goes to evidence of whether or not the  
24 system maintains --

25 THE COURT: I don't either.



1 MS. LACY: -- security for the ballot.

2 THE COURT: We're --

3 MR. CORRY: The testimony is going to show that  
4 the voter did not vote because of the serial number, and he  
5 believed that his security was compromised on his primary  
6 ballot that has the serial number on it.

7 THE COURT: Irrelevant.

8 MR. CORRY: Okay.

9 Q (By Mr. Corry) And have you voted in prior  
10 elections?

11 A Yes.

12 Q And so you understand how voting works?

13 A I think I do.

14 Q Okay. When you go in to vote, is there somebody  
15 who looks at your ballot --

16 A I believe that --

17 Q -- before they give it to you?

18 A I believe the election judge looks at the ballot.

19 MS. LACY: Lack of foundation.

20 THE COURT: Sustained.

21 Q (By Mr. Corry) What happens when you first go in  
22 to vote?

23 THE COURT: Where is this going? I mean, you know

24 -- are --

25 MR. CORRY: What I'm seeking through this witness,

1 Your Honor, is that the serial number is going to suppress  
2 voter turnout in Boulder County because fewer people are  
3 going to vote because of the serial number on it.

4 THE COURT: That is not an issue that this -- this  
5 case is not about that. Your argument is that, but the fact  
6 that -- I don't make decisions based on how people -- how  
7 people vote. When I'm trying a custody case, you know, I'm  
8 going to award children, parenting time to somebody or  
9 somebody not. I don't get to vote about that.

10 MR. CORRY: But --

11 THE COURT: I have to follow the law. This is not  
12 a -- how many -- what you have established, just now, the  
13 question was -- or the answer was something about, there is  
14 all kinds of voting. Do you remember -- when I first  
15 started voting, you went into this little curtain thing and  
16 there was a lever in there that says Democrat or Republican.

17 Now there are other levers too, but you could --  
18 you could pull one lever and vote. That's -- why am I  
19 saying that? Because all of this stuff about how people  
20 vote and all of that, it is irrelevant here. The issue  
21 is -- is the -- is the serial number on the Boulder County  
22 ballots a violation of the constitution.

23 MR. CORRY: Right.

24 THE COURT: You can argue if you want to, but the  
25 public policy is what the constitution says. I suppose we

1 can sit here and debate whether or not we should have a  
2 secret vote, but we don't get to do that.

3           The constitution tells us you can't have a way --  
4 you can't have -- it makes the ballot secret. Period.

5           MR. CORRY: But we allowed the government to put  
6 on evidence that the ballot is secret, and what we are doing  
7 is putting on evidence that the ballot is not secret given  
8 this serial number.

9           THE COURT: Not by asking the question you just  
10 asked.

11           MR. CORRY: There is no other way --

12           THE COURT: You are sort of assuming that there --  
13 everybody, everybody is not going to vote because they're  
14 afraid they might get identified.

15           MR. CORRY: I don't think I'm assuming  
16 everybody --

17           THE COURT: Well, you can argue that some people  
18 do, that's why they have the policy.

19           MR. CORRY: If I argued that without putting  
20 evidence on they would have objected saying there is no  
21 evidence to that effect.

22           THE COURT: There is enough evidence to argue  
23 that. That's the policy argument.

24           MR. CORRY: Well, I can continue with this  
25 witness.

1 THE COURT: All right.

2 Q (By Mr. Corry) Now, Mr. Schooler, your  
3 expectation when you go vote is that your vote is  
4 secret, right?

5 A That's correct.

6 Q Okay. And is that something that is important to  
7 you?

8 A Yes. That is very important.

9 MS. LACY: This is the same line of question, and  
10 I don't --

11 THE COURT: Sustained.

12 Q (By Mr. Corry) Mr. Schooler, you're  
13 familiar that there is a serial number on the  
14 Boulder County ballot?

15 A I believe that to be the case.

16 Q Okay. And when you went in to vote in the primary  
17 election, what did you see on that ballot?

18 A When the ballot was placed in front of me, I  
19 discovered that there was a number and a bar code.

20 MS. LACY: We will stipulate there is number and  
21 bar code on the ballot.

22 THE COURT: Okay.

23 Q (By Mr. Corry) What happened after you saw that?

24 MS. LACY: I object.

25 THE COURT: Sustained.

1           MR. CORRY: To me that seems highly relevant. I  
2 don't know what her objection is.

3           THE COURT: What anybody would do. This witness  
4 or anybody in the audience, what they would do when they saw  
5 that is not relevant.

6           Q     (By Mr. Corry) Mr. Schooler, do you think that  
7 the serial number facilitates vote buying and selling?

8           MS. LACY: Lack of foundation.

9           THE COURT: Sustained.

10          Q     (By Mr. Corry) Mr. Schooler, are you worried  
11 about the prospect of voters buying and selling their votes?

12          MS. LACY: Irrelevant.

13          THE COURT: Sustained.

14          Q     (By Mr. Corry) Mr. Schooler, when you --  
15 you were here for the testimony of Ms. Salas and the  
16 Hart InterCivic representative.

17          A     I was.

18          Q     And from that testimony, do you understand their  
19 version of how votes are to be counted in Boulder?

20          A     In general, yes.

21          Q     And what is your understanding of how your vote is  
22 going to be counted in Boulder from their testimony?

23          MS. LACY: Lack of foundation. We've heard  
24 testimony on this, the Judge has heard testimony and  
25 apparently the witness is going to reiterate what he heard

1 in testimony yesterday.

2 THE COURT: Sustained.

3 Q (By Mr. Corry) Mr. Schooler, when you go  
4 in to vote, do you believe that that serial number  
5 is going to make your vote marked in any way so the  
6 ballot can be identified?

7 MS. LACY: Witness opinion; it is a legal  
8 question.

9 THE COURT: Sustained.

10 MR. CORRY: All right. On that note, then, no  
11 further questions.

12 THE COURT: Any cross-examination?

13 MS. LACY: No.

14 THE COURT: Okay. You may step down. Any other  
15 witnesses?

16 MR. CORRY: No.

17 THE COURT: Does the Defendant have any other  
18 witnesses?

19 MS. LACY: Your Honor, I respectfully request a  
20 recess for a personal break and also to discuss testimony  
21 with rebuttal witnesses so we can have effect rebuttal.

22 THE COURT: Well, I'll take a recess for the  
23 reasons stated.

24 MS. MIRBABA: How long, Your Honor?

25 THE COURT: Ten minutes.

1                   (Whereupon the Court recessed from 11:00 a.m. to  
2 11:20 a.m.)

3                   THE COURT: Do you have any witnesses?

4                   MS. LACY: I just have two rebuttal witnesses. A  
5 few questions for each.

6                   THE COURT: How long are they?

7                   MS. LACY: I bet 15 minutes, at most.

8                   THE COURT: For both?

9                   MS. LACY: I think so. I don't know about cross.

10                  THE COURT: Okay. Let's move.

11                  MS. LACY: I would like to call Linda Salas to the  
12 stand, please.

13                  THE COURT: Ms. Salas, you have previously been  
14 sworn. You remain under oath.

15                  THE WITNESS: Thank you, Your Honor.

16   LINDA SALAS,  
17 called as a witness on behalf of the Defendant, having been  
18 first duly sworn, upon her oath, testified as follows:

19   DIRECT EXAMINATION

20 BY MS. LACY:

21                Q     Ms. Salas, can you please describe for the Court  
22 how the election's equipment software and disk files are  
23 secured?

24                A     The system is secured in a secured area that only  
25 certain personnel has access to. It is stored in the

1 Houston Room. The curtains are open so anybody can see  
2 anybody in that room. We have chains and padlocks in  
3 additional to the standardized locks on the room, so that  
4 keeps any of the custodial staff or any staff out of there.

5           There is only access by two people, the manager  
6 and the supervisor. We have to check the keys out as we  
7 need to open the filing, open the room.

8           There is another secured room that a key is not a  
9 standardized key where we lock the ballots. And we also  
10 have a secured gated area in the back of Building B where  
11 ballots, after the election, are stored and secured.

12           Q     Is that the one you described that doesn't have a  
13 standard key?

14           A     Yes. A master key will not work in that.

15           Q     You heard testimony this morning about how a poll  
16 worker could supposedly create a list that would some how  
17 connect the first serial -- beginning with the first serial  
18 number and then connect it with a the first voter and create  
19 a list from there, based on, you know, the order of voters  
20 and sequential numbers. Do you agree that's possible?

21           A     No. Judges were instructed in the primary to  
22 separate the ballots and put them out of order so that they  
23 would not be in sequence order.

24                   The other issue is that as voters come through,  
25 not every voter is handled in the order they come in. A





1           A     The judges would separate a pile by numeric order  
2 and separate them and stack them differently. They could  
3 put out three three ballots and the voters could grab a  
4 ballot, so it would not be sequence order.

5           Q     Wouldn't the system shut down if the three page  
6 ballot had three different numbers in the ballot?

7           A     It would, sir, but the judges are instructed that  
8 three pages, three pages are kept together and they could  
9 randomly put out those ballot sets and the voter could then  
10 grab one ballot set.

11          Q     Wasn't your whole testimony yesterday about how  
12 serial numbers were necessary to keep things in order and to  
13 be able to put the ballots back together if they're dropped  
14 by a 74-year-old Boulder --

15          A     I didn't say that they had to be kept in  
16 sequential number, as far as the way they are provided in  
17 the packet. I said that the sequential number had to do  
18 with the packet of the ballot given to the individual voter.  
19 That packet sequential must be the same. You can put out  
20 multiple packets of this, sequential number one, two, this  
21 is sequential number 1245, this is sequential number 14999,  
22 and the voter could grab that. As long as the sequential  
23 number for that packet given to the judge is the same  
24 sequential number ballot 123 -- pages 1, 2, 3, the system  
25 will count that.

1           I didn't say that the ballots have to be kept in  
2 the way that they're pulled out of the packet; I said the  
3 sequential number associated in a packet. So you have  
4 multiple ballots in there that are 1, 2, 3 page number, they  
5 each have -- the packet has a sequential number for that  
6 packet is three ballots. They don't have to be given 1, 2,  
7 3 sequential number 58. 1, 2, 3 sequential number 59. It  
8 can be sequence number 59, 1, 2, 3. Sequential number 68  
9 and pull it out 1, 2, 3.

10         Q     It sound to me like the serial numbers are  
11 basically meaningless and can be shuffled at will and your  
12 system can deal with that?

13         A     The system will read it, sir. The sequential  
14 number is used for ballot management.

15         Q     Really there is no reason to have serial  
16 numbers --

17               MS. LACY: Argumentative --

18         Q     -- in sequence?

19               THE COURT: That is a question?

20               MR. CORRY: Yeah.

21               THE COURT: Go ahead.

22               THE WITNESS: Could you repeat that?

23         Q     (By Mr. Corry) Is there any reason to have serial  
24 numbers in sequence then?

25         A     Because the judges have to track and do ballot

1 management and ballot auditing.

2 Q So the serial number is a tracking device then?

3 A That is true. It is for auditing purpose.

4 MR. CORRY: Thank you. No further questions.

5 MS. LACY: No further questions.

6 THE COURT: Okay. You can step down.

7 MS. LACY: I would like to call Neil McClure back  
8 please.

9 THE COURT: Mr. McClure, you were previously sworn  
10 and you remain under oath.

11 called as a witness on behalf of the Defendant, having been  
12 first duly sworn, upon his oath, testified as follows:

13 DIRECT EXAMINATION

14 BY MS. LACY:

15 Q Mr. McClure, did you hear testimony of  
16 Mr. Shnelvar?

17 A Yes, I did.

18 Q Did he accurately describe the retrieving or what  
19 is termed fetching of images or data off the system?

20 A I think he acknowledged that, in my previous  
21 testimony, that I stated that there was no user feature that  
22 would allow you to retrieve those. With regard to  
23 retrieving it from the database, I think that there may have  
24 been some misunderstanding.

25 What is stored in the database is the serial

1 number and then a graphical image of the ballot. So when  
2 you scan or image a document, it creates a graphic file and  
3 that is an exact picture of what the ballot is in its  
4 physical form only in electronic form.

5           The other piece of information stored in there is  
6 a binary array of information. This is an array of bits  
7 that are in hex values that have no human readable or  
8 discernible information to them. Only when you go to write  
9 the cast vote records to the memory card is that array then  
10 pushed through a set of logic that decodes it and writes the  
11 cast vote record to the memory card.

12           If you were able to copy this database, what you  
13 would have in there is a serial number and, as key format,  
14 and you would have a graphical image of the ballot, which is  
15 the same as the paper ballot and it's not searchable.

16           So, this whole discussion about data mining and  
17 creating this tremendous value of information, the database  
18 would not provide any searchable information under query any  
19 different than being in possession of the paper ballot.

20           Q     Do you agree it is easy to create voter and serial  
21 number pairs, connections, I should say, to voters and  
22 serial numbers?

23           A     There has been a lot of discussion of the value of  
24 this information being computerized, as I just described  
25 concerning the information saved in the database.

1           The critical element remains missing, which is the  
2 link between the serial number and who voted it, and as we  
3 heard some possible scenarios of how that could be  
4 performed. It still remains a very tenuous and improbable  
5 effort to put that together accurately, because it is not --  
6 that information is not available in the data.

7           You still have this missing piece of information  
8 that -- that really hasn't been accounted for in the  
9 previous testimony.

10         Q     And if someone, you know, in addition to that, if  
11 someone tried to access that data how long would it take to  
12 extract that? What would be involved?

13         A     It would be a considerable effort to -- if, you  
14 know, if you were able to some way gain a copy in some  
15 illegal fashion, then you're back to manually assembling, if  
16 you did in fact collect information regarding voters, names  
17 and their serial numbers, you are back to trying to manually  
18 assemble and reconcile that information in matching it up to  
19 the data.

20           Highly, highly improbable effort to have any  
21 assurance of accuracy. I mean, we are talking about the  
22 value of the data. Well, the value is only as good as its  
23 assurance of accuracy. And I'm not sure how you would even  
24 prove up the accuracy of that data.

25         Q     You heard testimony that if someone retrieved a

1 copy of a disk, no one would ever know. Do you agree with  
2 that?

3 A That's a pretty tough statement to support. If  
4 you were to hook up external disk drive to a computer, the  
5 operating system audit logging is turned on all of these  
6 systems, you would have to disable that or that event would  
7 be logged to the operating system. The only other possible  
8 is to actually dismantle the computer.

9 Q So, you may have partially answered that. What  
10 magnitude of effort would be required to manually link the  
11 serial number to the voter if a conspirator that the  
12 Plaintiffs keep talking about wanted to do that?

13 A Again, I think that that -- that's really  
14 underestimated in the discussion of the computer  
15 availability of information, that critical missing element  
16 is not available and would have to be put together. And,  
17 again, you would have no assurances of the accuracy of that  
18 information.

19 Q If someone told their, is there any assurance that  
20 they would give the correct serial number?

21 A You have no way of proving that. If someone were  
22 to tell you their serial number, there is no record or any  
23 information that would allow you to verify that somebody  
24 gave you their correct serial number.

25 MS. LACY: No further questions. Thank you.

1 THE COURT: Cross examine?

2 CROSS-EXAMINATION

3 BY MR. CORRY:

4 Q So you testified that the software that you have  
5 invented can scan the bar codes itself, right? Your own  
6 software?

7 A Correct.

8 Q Okay. So then how can you testify that it is  
9 impossible to scan these bar codes and figure out -- and  
10 track a ballot by serial number?

11 A I didn't say that.

12 Q Okay. What did you say? You said there is no  
13 user feature that will allow fetching of images to be  
14 retrieved?

15 A Right. You --

16 Q You said that, right?

17 A Yeah.

18 Q Okay.

19 A You can't sit there and say, Show me Serial No. 3.

20 Q But your software sits there and scans these  
21 ballots, and it also scans the bar codes and serial numbers,  
22 doesn't it?

23 A Correct.

24 Q Okay. So couldn't software be written that would  
25 read these images and could pick something out by the bar



1 code or by serial number?

2 A If you took the electronic copy of the paper  
3 ballot, you certainly could write a software program as we  
4 have that would decode that, yes.

5 Q Okay. So you, in fact, have written software that  
6 would be able to track something by the serial number on the  
7 ballot then?

8 A Correct.

9 Q All right. Now, do you know what it means to  
10 ghost copy a disk drive?

11 A No. Explain that to me.

12 Q You never heard of that?

13 A No. Go ahead and explain to me.

14 Q You never heard of it?

15 A I heard of it, but I'm not sure the context you're  
16 using it.

17 Q Could you explain what it means?

18 A As, in my understanding of it, it is a way to  
19 mirror a drive to another storage medium.

20 Q Your understanding is that there is a way to do  
21 that without creating any audit trail?

22 A Not to my knowledge.

23 Q Okay. But your knowledge -- you don't know then  
24 whether or not there is a way to do it without audit trail?

25 A Not to my knowledge.

1 Q Okay. Now, you testified that there is no link  
2 between a serial number and those who voted that particular  
3 ballot, right?

4 A Correct.

5 Q Of course you don't have any particular expertise  
6 in what happens at the actual polling place, do you?

7 A I've developed numerous polling location  
8 procedures, have participated in and been involved in  
9 numerous elections, and involved in polling place operation.

10 Q You've never been an election judge?

11 A No.

12 Q You've never been a poll watcher?

13 A Yes, I have.

14 Q Have you ever been present in Colorado when votes  
15 are cast and people are handing out ballots as election  
16 judges?

17 A Yes.

18 Q When you observed that, did you observe that the  
19 cards were -- the ballots were shuffled beforehand in  
20 Boulder?

21 A I don't believe I was present in the primary.

22 Q So you have some familiarity with how this system  
23 is going to be executed in Boulder; you've never been there  
24 when the system was used in the polling place?

25 A I don't believe that I've testified to that.

1           Q     Right.  So you don't deny then that if the cards  
2     are -- if the ballots are not shuffled and a poll watcher  
3     wants to write down his own first number and write down  
4     everybody else who votes sequential, you really have no way  
5     to deny --

6           MS. LACY:  I didn't ask that witness that  
7     question.  That is beyond the scope.  I asked that of  
8     Ms. Salas.

9           MR. CORRY:  He testified that he made a  
10    proclamation that there is no way to link the serial number  
11    and the person who voted it, but he has no way -- he has got  
12    no way to make that question --

13          MS. MIRBABA:  I object.  Lack of foundation.  This  
14    witness testified that he wasn't present during the primary  
15    so he can't answer this question.  He does not have personal  
16    knowledge.

17          THE COURT:  The objection is sustained.

18          MR. CORRY:  Okay.

19          Q     (By Mr. Corry) Now, you said it was  
20    tenuous and improbable to link the serial number and  
21    the person who voted it, correct?

22          A     Correct.

23          Q     So it is not impossible then?

24          A     Correct.

25          Q     And, in fact, there are numerous scenarios whereby

1 the serial number could be linked with the person who voted  
2 it, right?

3 A Not in my opinion, no.

4 Q Okay. The scenario where a poll watcher is there  
5 and copying down the names of each person who voted and in  
6 sequential order the ballots are handed to them, that's a  
7 scenario where the serial number could be linked to the  
8 voter, right?

9 A In my experience in polling locations, I would  
10 find that that scenario producing accurate information would  
11 be highly improbable.

12 Q But it could produce that information; couldn't  
13 it?

14 A Again, possibilities; highly improbable.

15 Q And the -- you didn't really contest any of  
16 Mr. Shnelvar's testimony in terms of the value of this  
17 information, did you?

18 A Actually, I challenge the ability to put together  
19 accurate information that would be represented as accurate  
20 and having the value that he claimed it would have.

21 Q But you've never been a political candidate, have  
22 you?

23 A I was only testifying to the ability to put  
24 accurate information together.

25 Q And you've never been a political consultant,

1 right?

2 A No, that's correct.

3 Q Or run a political campaign?

4 A That's correct.

5 Q You don't profess to be an expert on candidates  
6 and what voters care about in campaigns?

7 A No. I was testifying to data accuracy.

8 Q You don't really have information or knowledge one  
9 way or another which can contest what Mr. Schnelvar's said  
10 about the high value of this information and data if it  
11 could be obtained, right?

12 A I assume that inaccurate information would be  
13 worthless.

14 Q And you don't deny, then, that if this information  
15 is obtained and used and sold that that's increased  
16 incentive for that type of crime to occur, right?

17 A I don't understand your question.

18 Q You don't deny that the crime is going to take  
19 place if -- the crime --

20 MS. LACY: Obviously this is asked and answered  
21 because he said it is inaccurate and has no value was his  
22 opinion.

23 MR. CORRY: I haven't begun my question. Maybe I  
24 should ask the question.

25 Q (By Mr. Corry) You don't deny that it is more

1 likely that a crime is going to take place if there is  
2 increased incentive for it, do you?

3 MS. MIRBABA: Objection. Lack of foundation.  
4 This witness has testified he doesn't have personal  
5 knowledge in this area, and that was established by  
6 questions asked by opposing counsel.

7 THE COURT: Objection is sustained. We didn't  
8 have a Shreck hearing, did we, on the expertise and conduct  
9 of voters. We needed a Shreck hearing for that.

10 Q (By Mr. Corry) You don't deny any of  
11 Mr. Shnelvar's testimony that has to do with secrecy  
12 of data and the fact that there is spyware and  
13 malware and computer viruses that can infect  
14 systems. You didn't deny any of that, did you?

15 A No. I agree that those scenarios do exist.

16 Q And you don't deny that there are people who spend  
17 vast efforts, computer hackers, when really even their own  
18 personal incentives aren't that great, but they do it for  
19 the thrill of destroying and destroying a massive computer  
20 system, you don't deny that, do you?

21 A I would deny that to a degree. In most of our  
22 experience publicly is with hackers on the Internet, and  
23 these are closed and off-line systems and well managed, and  
24 there are very specific laws that protect the tampering of  
25 this information.

1                   So I would suggest that this is a different  
2 scenario then you are painting from Internet type of  
3 environment.

4           Q     You don't deny that one of our country's top  
5 secret security locations at Los Alamos was somehow  
6 breached, do you?

7           MS. MIRBABA:  Objection.  Lack of foundation.

8           THE COURT:  Well --

9           MR. CORRY:  I'm asking if he denies it.  I mean --

10          THE COURT:  What is relevant about that?  I don't  
11 care, make a record.  I think I read in the paper -- did you  
12 read something about that in the paper?

13          THE WITNESS:  I have no knowledge of it.

14          THE COURT:  I don't always believe everything I  
15 read in the newspapers, by the way.

16          Q     (By Mr. Corry)  And you don't deny that these  
17 votes are shown linked with the serial number and bar code  
18 on the ballot, do you?

19          A     I think I testified to that.

20          Q     Okay.  And so, basically, the serial numbers, it  
21 is your testimony, that the serial numbers are nonessential  
22 to these ballots, right?

23          MS. MIRBABA:  Objection.  Assuming facts not in  
24 evidence.

25          MS. LACY:  It was testified to.

1 THE COURT: I'll let him answer the question.

2 THE WITNESS: Repeat it, please.

3 Q (By Mr. Corry) I think it was, you don't deny  
4 that the serial numbers are nonessential to counting ballots  
5 in Boulder County?

6 A The serial numbers have a useful purpose.

7 Q But they're not essential, are they?

8 A No.

9 Q They are merely a tracking devise so we can track  
10 voters and how they are voting?

11 A No. That's not correct.

12 Q So you disagree then with Linda Salas when she  
13 testified that the serial --

14 MS. LACY: Argumentative. That is not what Linda  
15 Salas said.

16 THE COURT: Sustained.

17 Q (By Mr. Corry) You don't deny that these ballots  
18 are marked in a way whereby the ballot can be identified as  
19 the ballot of the person casting it?

20 A I do deny that.

21 Q So you say unequivocally it is impossible to  
22 identify the ballot as the ballot of the person casting it  
23 because of the serial numbers you've placed on the ballot?

24 A Could you repeat that?

25 Q You say unequivocally that it is impossible to



1 identify a ballot as the ballot of the person casting it  
2 because of the serial number you placed on the ballots?

3 A I said, it's improbable.

4 Q But not impossible?

5 A As long as a paper record for any paper system  
6 exists, it is possible to identify it regardless of the  
7 system used.

8 Q But if there is no serial number how would you  
9 identify the ballot of the ballot -- as the ballot of the  
10 person casting it?

11 A There is other ways to do it other than with  
12 serial numbers.

13 Q Name one.

14 A Putting a mark on the ballot.

15 Q That would be the voter putting the mark on the  
16 ballot?

17 A Sure.

18 Q Is there any other way that it could be identified  
19 without the serial number, if the voters doesn't put a mark  
20 on the ballot?

21 A Showing it to somebody in the absentee format.

22 Q Is there any action not taken by the voter where  
23 the ballot could be identified as the ballot of the person  
24 casting it?

25 THE COURT: You could cough on it.

1 MR. CORRY: Okay.

2 Q (By Mr. Corry) Is there any other action that the  
3 government could take that would not identify as the ballot  
4 of the ballot of the person casting it?

5 A I don't understand your question.

6 Q Let me back up here. You said the serial number  
7 doesn't allow the government to identify the ballot as the  
8 ballot of the person casting it?

9 A Correct.

10 Q Okay. But I guess you would disagree then with  
11 Linda Salas that this is a tracking device?

12 A I believe you're taking Ms. Salas' comments out of  
13 context. I didn't hear her say that.

14 Q You didn't hear her say that this serial number  
15 was a tracking device?

16 A She used the word "tracking" but in the context of  
17 ballot management is my recollection of her testimony.

18 Q Okay. And it's your testimony, then, that the  
19 serial numbers don't allow the ballot to be identified?

20 A So -- repeat that.

21 Q It is your testimony that these serial numbers  
22 don't allow the ballot to be identified?

23 A They allow the ballot to be identified by the  
24 system that's scanning them.

25 Q Okay. And the system is run by human beings,

1 right?

2 A Correct.

3 MR. CORRY: Thank you very much. I've got no  
4 further questions.

5 REDIRECT EXAMINATION

6 BY MS. LACY:

7 Q You said that the sequence number identifies the  
8 ballot, but does it identify the person?

9 A No, it does not.

10 Q Again, does this system retrieve ballots by serial  
11 number?

12 A No, it does not.

13 Q And you testified that in order for someone to use  
14 the system, first they have to steal the information and  
15 fill up software?

16 A Correct. If the scenario is followed through, we  
17 have probably three years' investment in developing the  
18 software to decode this information. They would also have  
19 to steal the ballot definition file and develop the source  
20 data at which the ballot was printed in order to -- in order  
21 to decode what they've pulled from the ballot.

22 So it is no small feat. It's not writing a  
23 utility on the weekend from your home computer.

24 MS. LACY: Thank you. No further questions.

25 THE COURT: You may step down.

1                   THE WITNESS: Thank you.

2                   THE COURT: This court finds that Boulder County  
3 ballots containing serial numbers and bar codes  
4 substantially comply with Colorado election law and the  
5 Colorado Constitution. Accordingly, Plaintiffs' complaint  
6 is dismissed. The Court is in recess.

7                   (Whereupon the Court adjourned at 11:55 a.m.)

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REPORTER'S CERTIFICATE

STATE OF COLORADO )  
COUNTY OF BOULDER )

I, Susan L. Garramone-DeWitt, do hereby  
certify that I am a Certified Shorthand Reporter  
within and for the State of Colorado, Official Reporter  
of Division 6 of the District Court at Boulder; that  
as such Reporter, I was present upon the occasion of  
the hearing in the above entitled matter at the  
aforesaid time and place; that I stenographically  
recorded all proceedings had, evidence adduced, and  
testimony taken in the above-entitled matter.

I do hereby certify that I caused my said  
shorthand notes to be reduced to typewritten form,  
and that the foregoing pages constitute a full, true,  
and correct transcript of my said shorthand notes so  
taken aforesaid.

IN WITNESS WHEREOF, I have hereunto set my  
hand this \_\_\_\_day of \_\_\_\_\_, 2004.

---

Susan L. Garramone-DeWitt, CSR, RPR  
Certified Court Reporter

