The COOK Report on Internet Protocol
Technology, Economics, and Policy
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The Privatization of Our Democracy

Eva Waskell and the Election Integrity Movement

A Profile in Courage

in the form of an extended conversation between

Eva Waskell

and

Gordon Cook

San Rafael, California and
Ewing, New Jersey

February 2010

Last updated April 1, 2010

Volume XIX, Nos. 1 and 2
April - May 2010
ISSN 1071 - 6327

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Preface

I am honored that Eva Waskell has entrusted me to present *The Privatization of Our Democracy*, a work that I regard as her Profile in Courage. For 25 years she has labored to correct what is possibly the most significant public policy failure of the computer age—the privatization of vote counting carried out under the rationale that computers are simply automatic calculators that can tabulate votes more cost effectively than old analogue machines. I have known her for 19 of those years.

There were some election lawsuits before Eva got on the trail in 1985. That is true. But she was the earliest person to connect all the dots and see the much bigger picture, and she has been selflessly laboring in the trenches ever since. While I met Eva in 1992, I first heard about her election interest only in 1994. I knew immediately what concerned her because I remembered very well reading the Ronnie Dugger article in *The New Yorker.* When we began talking last September about doing an "interview," imagine my amazement at the passage of 15 years before Eva ever acknowledged that the work she and Terry Elkins had done was the catalyst for THAT article being written!

As a friend in Holland said, "It's a rare and precious gift to meet a true bodhisattva—a human being who has dedicated his own life and spiritual liberation to something far greater than himself or herself." It took me a long time to understand this as I watched Eva in 1996-1998 and stayed at her small but lovely house in Reston, Virginia when I visited Washington, DC. In those years of rampant materialism and worship of the private interest, Eva had but one thought—elections in the USA were being sucked inside an unknown and unknowable black box where the circumstantial evidence at the very least pointed to the possibility, if not the probability, that they were for sale.

Eva's vision was clear on this long before the disaster of November 2000. I remember trying to help. In the last years of the 1990s, I informed many, many people of her concerns and suggested that they help the citizen-based election information center she was trying to put together. But people's minds were on other things as the Clinton "good times" rolled on. The lack of interest was palpable.

But since the 2000 debacle, even public interest people expect free access to what this book will show is an encyclopedic expertise unparalleled by anyone else. It is rather tragic that the preservation of free elections is a worthy cause but also one where there is no money to be made by anyone outside of an established public interest organization of some type. Therefore, any "freelance" work in this field done by citizens is especially dangerous because there is always the expectation that these people will work *pro bono*.

And as with every endeavor within the election integrity community, there are people who expect everything for nothing. But of course there are also good people. Eva has seen both. And for her labors she deserves some assurance of financial stability that comes with basic medical care, food and housing. It is my hope that now that she has told her story for the first time, she will be able to work with those who will make sure she can devote herself full time to the cause. It is also my hope that Google, or someone like it, will understand that her archives are definitive for this field. They must be protected and then digitized.

People think they know that something is wrong with the way elections are conducted in this country. They are correct. There is. But readers only now will get access to a full history of the abuse of public trust by the elected politicians of the United States of America. That's a large claim to make, but see for yourself.

The Process

In September 2009, Eva started telling me things about her election work that she never had revealed before. As readers will see, I had direct and key experience with parts of her story but most of the story I did not know. I remember reading John F Kennedy's *Profiles in Courage* in about 1958 when I was still in high school. What you are about to read is a story that equals any in JFK's classic book. A woman who has never given up because . . . it's our democracy at stake.

When we started this interview in early October, I interviewed Eva for more than three hours. Within a week I sent her more than 18,000 words of very rough text. I said there was no length limit. I urged her to tell her story. And while working in the midst of California's disastrous economy on various part time jobs to continue to pay the rent for her small apartment, she has spent several hundred additional hours, as she puts it, to look back for the first time in 25 years. The result has tripled the length of the original effort.

It has not been easy. In my view, it is as though I tried to tell in one extended essay everything I have learned about telecommunications within the 30 years I have been online. I at least have been doing *The COOK Report* for 18 of those years. Eva was just connecting and network building year after year after year. Refusing to give up because to do so would be to admit that America failed. That our national legends were only legends and no longer grounded in reality. Consequently, while continuing to work to pay the rent, she accumulated archives that are unlike anything that anyone can imagine. I visited her in San Rafael from November 29 – December 3, 2009 and asked for and received an extensive 90-minute tour of these archives, which I recorded and during which I took 135 photographs. It turns out there was a good reason for doing this. The illustrations for this profile are almost entirely from that tour.

Readers need to understand that this has been almost a stream of consciousness process through which Eva has made a **first** pass at organizing a subject just as complex as global telecommunications. It's a work in progress. And while folks specialize all over the place, she connects the silos and weaves a fabric, a tapestry on which the betrayal of our democracy by its privatization is stitched together in exquisite detail.

Eva will take you through the policy process at the FEC in the mid-1980s as the Reganites completed the "enclosure" of our democratic commons, and did it so skillfully that the public never had a clue until the hanging chads in Florida decades later. When Eva talks about memos or letters written by the parties involved, she has the original documents or copies of them in her possession.

I believe that there are multiple publications here in what Eva has to say. The scholarly monograph. An *Elections for Dummies* paperback. A paperback of humorous tabby cat photos where the kitties are running elections. Eva is a national treasure and I am proud to be able to use the Internet to make her story known. Fortunately, there are many, many public spirited citizens left. Like the one Eva and I visited on November 30 and who told how she met Eva in July 2008.

"There was a woman there furiously taking handwritten notes and asking questions that no one else did. The woman was Eva. I talked to her afterwords and immediately knew she was the real deal. And it was as though she'd been hiding under a rock all these years." Welcome to the sunshine, Eva. It's been a struggle but you have persevered and everyone will be better off for your accomplishment.

Gordon Cook
Editor and Publisher of the
COOK Report on Internet Protocol
Ewing, NJ, USA
February 15, 2010

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What is the *COOK Report*?

The ***COOK Report*** is a newsletter – appearing approximately six times a year – for those focusing on issues useful in strategic planning in terms of the Internet and its impact on economics and policy.

It also offers subscribers an ongoing 200-member private mail list called the Economics and Architecture of IP networks. This has evolved into a community of interest forum led by Gordon Cook, but where members hold their own conversations, share knowledge and develop ideas. The membership has been selected and nurtured by Gordon over the past six years with the goal of achieving a cross section of industry visionaries from commercial players such as Cisco, BT, Google, Motorola, Dell, Sprint and others. Other members represent the research and university community, network operators, industry analysts and VC communities, community network and wireless players, both regulatory and regulatory attorneys, entrepreneurs, public sector, and university researchers. There is a strong focus on the economic impact of open access fiber and other forms of broadband. The purpose is cross-sector fertilization of ideas technology and problem solving.

The COOK Report is in its 19th year of publication and has been using the mail list/forum approach to community building for eight years. Gordon is focused on technology transformation across sectors of the economy and on connecting people to each other in order to enable the flow of ideas and building new projects.



Subscribers join a community of people who solve each others problems, germinate and test new ideas, and serve as sources of expertise for others. They form a private environment to experiment with collaborative ideas where admission is by subscription and the newsletter is becoming the by product.

For more information visit http://www.cookreport.com/

Announcement of ongoing activities

Eva has a new website where this book will be serialized and where over the coming months it is likely that a forum, a blog and/or other two-way interactivity will be made available. She may be reached at Eva Waskell <ewaskell@comcast.net>. Note that the website above has a PayPal button for those willing to donate in support of her work.
http://eva.voteyourpocketbook.us/

Foreword: An Abdication of Trust

As the USA basked in post World War II prosperity, it invested in infrastructure primarily in response to the perceived Communist threat. Once the race to the moon was won, the interstate highway system rolled on of its own momentum. While private goods like the auto commanded respect, public goods like railroads or mass transit sank into decay. The same telecommunications dysfunctionality that hurts us now, with 50 separate state public utilities commissions and a 51st regime in the FCC at the national level, affects our highly decentralized election administration. Decidedly unglamorous and continually short-changed in state and local budgets, local election machinery nationwide represented easy picking for businessmen who wanted to let "new fangled" computers count votes.

However, in the new post war prosperity, there were few people who knew enough about the technology to realize the trade off between public officials starved by politicians of the money needed to do their jobs, and the attractiveness of these automatic counting machines. Never mind that no one understood how they functioned. The tragedy revealed by Eva's Profile in Courage is that with peacetime prosperity, our national and public interest were quickly forgotten in the rush to privatization.

What Happened

Starved of resources, local election officials, who were dedicated and hard-working public servants and who, on average had a high school diploma, were offered computers that would let them do their jobs "on time" with even less money and more efficiency.

As the vendors wined and dined election officials and sold them "state-of-the-art" computer systems, these businessmen were thinking of elections as a private and totally recession-proof niche marketplace where the customers wanted cost savings and faster and faster ballot processing for faster and faster election results. There was no one minding the policy "hen house." There was no one to think about the *consequences* of the fact that local public officials with no understanding of computers were now being given an IT department to run, even though the typical local jurisdiction had little to no in-house technical expertise to do this effectively. There most certainly was no computer security expertise at the local level.

Waskell's concise verdict: "Our public servants gave up their ability to understand, and hence control and effectively manage, the vote counting process." "Privatization was packaged and sold as modernization, efficiency, cost savings, a way to speed up ballot processing and the release of election results, and cost savings. No one seemed to notice that control of the vote counting had now silently and irrevocably passed from our public servants who could be held accountable to the anonymous and unaccountable employees of a private company."

When the new voting technology established its beachhead in the 1970s and 80s, the vendors had the luxury, even then, of a non-existent regulatory environment, much like they enjoy today. "It

was laissez faire in the extreme. Anyone could develop a voting system and sell it to a county after the system went through a fairly non-rigorous state certification process that never ever included a line-by-line inspection of any vote-counting software because it was a trade secret."

Roy Saltman at the National Bureau of Standards wrote in 1975, "The elections administration must assume responsibility for all vote-tallying activities. It if does not, or it cannot because it does not have the expertise to do so, it is not fully carrying out its assigned governmental duties. The vendor, on the other hand, ought not to assume any responsibility for vote-tallying."

"***Saltman and his report are frequently cited," said Waskell. "Yet in my 25 years in this field I have never heard anyone in the election community say anything about Saltman's most critical recommendation, i.e. the vendor ought never to control the vote counting."***

Roy Saltman - Prophet Ignored

Roy Saltman's 1975 report said that real standards were needed for voting systems. What did the Federal Election Commission do? According to Saltman, "Once the FEC commenced the development of the standards in 1984, it did not request the assistance of NIST (the National Institute of Standards and Technology, formerly the National Bureau of Standards), although this agency offered its expertise." Instead, the FEC climbed in bed with the vendors.

Another problem is that the local election officials totally rely on the vendors' proprietary election software, especially when it comes to the vote counting. Thus, the vendors are in the driver's seat. At the same time, the local election officials expect the public, including voters, to give *them* the Good Housekeeping Seal of Approval and to trust *them* with the vote counting, even though they don't truly understand and fully control the proprietary software that counts votes. The vast majority of election officials are indeed honest and hard-working, but they still lack the necessary technical knowledge to run the vendors' software under all circumstances without assistance.

There's also another critical problem that's often overlooked, i.e. the influence of the vendors' 30-year history of lobbying aimed at the Federal Election Commission, an agency that was essentially captured by the vendors, and ended up taking about 12 years to develop minimum VOLUNTARY standards. We have the fact that NIST's Roy Saltman, who wrote the predictive "bible" on the subject in 1975, was essentially locked out of the process as the FEC betrayed the American public by accepting whatever the vendors wanted. We have the fact that the National Association of State Election Directors (NASED), a group not accountable to the public, created the pretense of a testing and certification system that was secret and screamed "trust me" at every step of the way. And finally, we have the sorry spectacle of Penelope Bonsall, the Director of the five person Office of Election Administration (the National Clearinghouse on Election Administration) within the FEC, continually asserting that it was absolutely proper for local election officials to accept private proprietary trade secret software to count votes. Her rationale? That there are many other governmental functions that rely on proprietary software. After all, payroll and accounting systems were proprietary. Why not vote counting?

Meanwhile, from the citizen side of the fence, think about the impact of the obscenely small amount we have invested in our democracy infrastructure over the years, and ask yourself how this compares with our many other spending priorities. Furthermore, the lack of meaningful and effective public oversight, accountability and transparency is an open invitation to someone who is willing to do whatever it takes to win. While this may sound bizarre to someone who approaches the somewhat arcane subject of election administration for the very first time, by the time you, dear reader, get to the end of the interview, you will see the alarming range of choices and gaping loopholes available to someone who is willing to do whatever it takes to win.

Those choices and loopholes are there because our privatized elections lack transparency. In other words, critical processes are totally opaque as representatives from the vendors, not the local officials, frequently operate the vote-counting computer on election night. The average American is highly cynical. This interview will show both why they should be cynical and why we should also have hope. Florida in 2000 and Ohio in 2004 showed us that while we preach democracy and fair elections to the rest of the world, we are not exactly free from partisan shenanigans during a tight election.

Once you lift the curtain, as this book does, you will see how little there is that genuinely protects the sanctity of the most critical steps of the election process, and why we must start to pay attention to what's going on. With hundreds of millions of dollars floating around in campaigns today, how easy it would be to quietly buy an insurance policy so that your larger investments in media advertising and so on have not been in vain. How would this work in practice?

It would be easy. Let's look at what happens after the ballots or their electronic equivalent are delivered to the central counting room on election night. As Eva explains, "There may or may not be a surveillance camera in the computer room. If there is, it's always in the possession of the local jurisdiction so any potentially incriminating footage can always be erased. Camera or no camera, there certainly is no complete, permanent and publicly inspected record at all of the most critical events that take place in the room on election night. Airplanes have flight recorders so we know what happened in the cockpit in case of a plane crash. There is no equivalent comprehensive record—or anything closely resembling it—of what the computer operator does in the cockpit of elections on election night. None. There is no black box or other device to record audio and, say, all of the keyboard keystrokes. The only black box in the room is the election computer."

Gordon Cook
February 15, 2010

1. "You really have your work cut out for you, don't you?"

COOK Report: How did you get involved in elections and come to feel so passionate about election integrity?

Waskell: I stumbled into elections by accident. It was something I knew nothing about. And sheer serendipity was responsible for a lot that pulled me further and further into the political vortex surrounding elections. But once I found myself face-to-face with all the various elements of election administration, I realized that many critical procedures were taking place behind closed doors that had never been opened. Everywhere I looked I found that the most fundamental and crucial questions about critical policies and procedures had remained unanswered. In fact, they had never been asked.

I began to view myself as a detective looking for clues as to what was really happening. Trying to identify the players and the pieces of a giant jigsaw puzzle and fit them all together. Find the connections. Trying to see behind the curtain. And once I had a peek into this new territory, I was absolutely flabbergasted at what I found. It was just one shocking or mind-boggling thing right after another. And the general public was totally unaware of this. They had a Norman Rockwell vision of elections that was more illusion than reality. I concluded that I had to tell people about what I found and get them to start asking their own questions and honestly examining their assumptions about how elections were run in this country.

a Norman Rockwell vision of elections that was more illusion than reality

My feelings about elections started with sheer anger and a deep sense of betrayal by the public servants who were in charge of our public elections and had let me down. For about the first five years I was very, very angry. And outraged at the neglect and/or complacency that was endemic at so many levels of decision-making. Nobody cared. Or at least nobody seemed to care enough to deal head-on with the core problems; it was much easier to deal with the problems, and they were legitimate problems, that lay closer to the surface. But outrage alone wasn't going to do anything to improve elections. Besides, the feelings of outrage quieted down after a while. For one thing, you can't think straight if you're outraged. So all of that negative energy got transformed into the energy of motivation. I just got busy and channeled all that anger, outrage and feeling of betrayal into...action. Educational action. Self-education first and foremost, and also into what were all too often fruitless attempts to educate the public, public officials and the press.

And here's a bit of a twist. I've always hated politics and was never politically active except that I did vote fairly regularly. So it's very ironic that I've ended up grappling with a political problem in the sense that the overriding barrier to solving the huge challenges we face in election administration is that there is no political will whatsoever to solve the most important and the most funda-

mental problems. In fact, I believe that the core and overarching problems we face in this area have not even been defined yet, let alone publicly debated. They're still largely invisible. It's a taboo subject. The third rail of election reform. More about that later.


Eva Waskell, San Francisco, December 3, 2009

A Harsh Reality Discovered

COOK Report: I understand that you were a science writer and by around 1984 you were a stringer for *The Economist* of London covering artificial intelligence (AI) and neuroscience. Did you end up getting something published in *The Economist*?

Waskell: Yes, I did. It was an article about IntelliCorp, a Silicon Valley start-up company that developed expert system shells, the rules and reasoning part of an expert system.

COOK Report: How did you get from expert systems to elections?

Waskell: By pure accident. In the winter of 1984-85 I traveled to Glasgow, Scotland to conduct interviews with the computer scientists at The Turing Institute who were doing some cutting edge work in AI. I also spent time in London doing research on a biography of the first computer programmer. It was here that I met a few of the writers from *The Economist* and the science and technology editor Matt Ridley who invited me to become one of their stringers specializing in artificial intelligence and neuroscience. When I got back from Europe, I was very anxious to do a story for the magazine, as we had discussed, on what was happening in California regarding AI. So I traveled to California to interview people at several of the new AI companies, researches at Xerox PARC, and management guru Tom Peters.

The election connection occurred in California.

Right before I made this fateful trip to the West Coast in the spring of 1985, I had seen an article in MIT's *Technology Review* about Computer Professionals for Social Responsibility (CPSR), a recently formed non-profit headquartered in Palo Alto. Hmmmm. Interesting mission statement. Computer scientists were who questioning Reagan's Star Wars plans. Maybe there's something here for *The Economist.* Maybe not. I made a copy of the article and planned to drop by their office to talk with someone while I was in their neck of the woods.

COOK Report: With whom did you finally speak?

a call from an attorney in Indiana
involved in an election lawsuit

Waskell: Severo Ornstein, one of the founders of CPSR. And it turned out to be a critical conversation because it led me directly to the person who changed my life.

COOK Report: How did that happen?

Waskell: Toward the end of the interview, Ornstein threw out something in a very casual manner. I remember his exact words. "Here's something you might be interested in, Eva. I recently got a call from an attorney in Indiana involved in an election lawsuit. He hired a computer expert who looked at the vote-counting software and found a trap door that allowed votes to be changed without leaving a trace." That got my attention! A quantum leap of attention over anything I had heard in my whole life. I was frozen with...I don't know what. Disbelief? Curiosity? I was soon able to thaw out because Ornstein immediately gave me the name and work number of attorney David Stutsman in Elkhart, Indiana. I probably didn't concentrate very well on what Ornstein said about CPSR and Star Wars after I heard that little bombshell of information. I couldn't wait for the interview to be over. All I could think of was talking to that attorney ASAP.

The computer expert found a trap door that allowed votes to be changed without leaving a trace.

COOK Report: And when you finally reached Stutsman, what did he say?

Waskell: We didn't talk for long, so I got the executive summary version of events. The first thing Stutsman said was that the software used to count the votes in Elkhart County was proprietary. It was a trade secret belonging to Berkeley, California-based Computer Election Systems, Inc. (CES). He said that all vote-counting software across the country was proprietary. I didn't believe him. If county election officials have never seen or inspected the vote-counting program, how can they honestly certify that election results are true and correct? "Good question," replied Stutsman.

While I was still feeling perplexed about the use of proprietary software in public elections, Stutsman briefly described what happened in a Congressional race in Elkhart on election night in November 1982. Several people noticed a very obvious error in the vote totals generated by the county's punch card system, i.e. the vote-counting program had a logic error. So a vendor representative was called in to correct the problem. He pulled a control card out of his pocket (An instruction-containing control card looks identical to a voted punch card ballot.) and inserted it into the control deck of punch cards that contained the instructions on how to count the votes for that election. The voted ballots were then rerun and the election results were now "correct." So the vendor altered the program's instructions in an unknown and unknowable manner, walked out of the room and headed straight to the airport where he boarded a plane and left town. Stutsman also mentioned a few of the voting system's vulnerabilities that his computer expert and her graduate students found when examining the vote-counting source code, like the trapdoor that Ornstein mentioned at CPSR's headquarters.

The vendor changed the vote-counting instructions on the fly and it's impossible to know what changes were made.

Now there were two things in this initial story that stood out for me. First, the role of the vendor who could change the vote-counting instructions on the fly. And it was impossible to know what changes were made. Second, there was no outcry from the local election official about what happened and how it happened. The changes were made with no oversight, no accountability, and absolutely no transparency. None. I was quite appalled.

But this sort of mid-election adjustment, or adjustments, still takes place today...with impunity. The activists in southern California will certainly find it familiar. Since November 2000, they've had first-hand experience with this type of election magic trick and the non-responses from the local registrar of voters. About the only difference is that in Elkhart in 1982, everyone knew the name of the person who made the changes to the vote-counting program. In the California cases I'm referring to, *the person making the changes was unknown to the election observers because he wasn't wearing a name tag*. But sometimes the people in the central count computer room on election night wear name tags but turn them over so their name isn't visible.

COOK Report: All of this must have been surprising on many levels.

Waskell: Yes, it was. Like most people, I had never before given any thought whatsoever to what happened to my ballot after I voted. I just assumed that the vote-counting software was likely written by the county...no, by the state, so that there were public officials somewhere who actually knew what the software was doing. I also assumed that people cared enough about democratic elections that there would be defense department level of security in these programs because this software was responsible for honestly electing, among other offices, the head of the free world. That's a pretty powerful office!

I wrongly assumed that there were public officials somewhere who actually knew what the vote-counting software was doing.

I'm also thinking about this in terms of possibly writing an election-related story. This would be the easy part I thought. Public elections are public. So getting information about election procedures and policies from the local election office will be a piece of cake. I'd have full access to seeing whatever it is that they do behind the scenes. How else am I going to learn? After all, we're talking about public elections. And this is America. Land of the free and home of the brave. Anything that goes on in the office of a state or local election department would surely be open to scrutiny. And surely the public servants in these offices would be amenable to a bunch of well-thought out questions from a curious citizen. Because that's what I was at this point. Very, very curious. A citizen, a voter, a member of the public who simply wanted to know how elections were run and how the votes were counted. I assumed I had an inherent right to know all there is to know about election procedures and election technology. Now remember, all of this flashed through my mind in a few seconds.

COOK Report: And with the benefit of hindsight, what do you think about those assumptions now?

Waskell: Every single one of them proved to be totally wrong for many reasons that I couldn't have possibly imagined. I was so incredibly naïve at the time. I feel embarrassed now to realize that I even thought like that as an adult! But slowly over the years, bit by bit, and layer by layer, with every rock I picked up, with every interview I had with state and local election officials (and elected officials in particular), with every superficial investigation of election irregularities I studied, with every flimsy report regarding the quality of voting equipment (The rare, detailed and hard-hitting reports were just ignored.), with every election-related conference and Congressional hearing I attended, with the horribly inadequate and ambiguous election laws I read, with the complete lack of research, data, scientific studies, objective and independent analyses of election administration (It was much later that I ran across Joseph P. Harris' classic 1934 book on US election administration.)—with each of these encounters, my understanding grew deeper and wider, and one by one my original assumptions were annihilated by the realities I uncovered. I gradually began to piece together a complex and comprehensive picture of a deeply entrenched dysfunctional system that no one in a position to do something about it really wanted to fix. And I mean no one, because no one wanted to admit the nature and extent of the problems. No one dared to say that the emperor was wearing no clothes. Everyone around the emperor was benefiting from the status quo, which included keeping the public in the dark about what was really going on behind the scenes.

No one wanted to admit the nature and extent of the problems.

COOK Report: You said that Computer Election Systems was based in Berkeley. Did you happen to visit their offices while you were there in California?

Waskell: No, but I phoned CES and asked to speak to one of the programmers. I don't know what I was thinking. "Sir, I'm a voter and I'd like to ask you a question. When you and your team were writing the vote-counting software, did anyone put in a trapdoor that would allow someone to change votes without leaving a trace?" It's silly, I know. But the operator who first answered the phone did put me through to the engineering department and a man answered. However, after a few seconds the line went silent and the operator came back and said she was transferring me to media relations. I told the PR guy that I had some questions about a lawsuit in Indiana. He snowed me with information about a different election lawsuit, another contested Indiana Congressional race I was unaware of, and he pointed me to a publication that would absolutely answer all of my questions. The publication was a dead end, of course, but I didn't know that until I got back home.

COOK Report: Let's get back to that first conversation you had with attorney David Stutsman. What happened after he gave you the executive summary of the situation with elections?

Waskell: It was a lot of new information to take in at once. My mental real estate was still occupied with conducting interviews at Xerox PARC and AI companies so I didn't have much free time to look into elections. But I was pretty sure that Stutsman was not telling the truth when he said that vote-counting software was proprietary. I knew I had to verify this one fact before I went any further. This guy sounded like he had a dynamite story or he could just be plain crazy.

So I called the California Secretary of State's office and spoke briefly with Deborah Seiler, the head of the computer voting division, who confirmed that vote-counting software was indeed proprietary, and that when her office certified voting systems for use in the state, they did not do a line-by-line review of software. Why not? "Because we don't have the resources to do it." She said it in such a matter-of-fact manner that it stunned me. She clearly wasn't bothered one little bit by the fact that votes were counted secretly in public elections. I think she also said a few words about her reasons for not being concerned. Something about all of the robust checks and balances in place and the post-election canvass would certainly catch any errors in the election results. I had no idea what a post-election canvass was. Seiler left me with the distinct impression that once I knew more about all of the checks and balances in place, I would be as satisfied as she was about the correctness of election results. But that's not what happened. The more I learned about the checks and balances and how utterly fragile and frequently ineffective they were, the more concerned I became.

The more I learned about checks and balances and how utterly fragile and frequently ineffective they were, the more concerned I became.

The next phone call I made while in California was to the office of the Registrar of Voters in Marin County. The woman I talked to told me that the county's vote-counting software was certified by the state and certification included a line-by-line inspection of the computer code. I said it didn't. "You're wrong," she said. "Call the secretary of state's office in Sacramento and check it out." I told her I had just spoken with Deborah Seiler who wasn't concerned about this at all. There was a long pause. Then she said, "You really have your work cut out for you, don't you?"

[**Editor**: Twenty-five years later, Seiler was doing very well for herself. See the last page of Chapter 30.]

2. Before Elections: Looking for Unchartered Frontiers

COOK Report: Give me some biographical background. What was your life like before you discovered our election problems?

Waskell: I grew up in Wilkes Barre, Pennsylvania. My father was a public accountant, the only one of nine children to go to college. My mother was a high school graduate and stay-at-home mom. She was one of twelve children. My older sister is a medical doctor with a PhD in biochemistry. A left-brain person. My younger sister is just the opposite, i.e. she's predominately right-brained and holistic oriented in her pursuits. She's a people person. So growing up I was always aware of these two very different world views and personalities. I lived somewhere in the middle, and with my nose in a book all the time. C.P. Snow's essay *The Two Cultures* resonated with me. And I knew that I wanted somehow to be a bridge between these two worlds of art and science. And that bridging process, whatever form it would take, was definitely not ever going to happen if I remained in the coal-mining region of northeastern Pennsylvania.

I wanted somehow to be a bridge between these two worlds of art and science.

So I guess you could say that before I became totally focused on elections I had been searching for a long time for that bridge. For a purpose to my life. Something that no one had ever done before. I remember getting my first history book in fifth grade from Mrs. Grayson. I asked her for special permission to take it home over the weekend and I devoured it. The pictures of explorers who discovered new lands really caught my attention. So when I graduated from high school in Wilkes Barre, I wanted to be an oceanographer. I love the water! I planned to go to Penn State, where I had been accepted, and major in chemistry and biology. And after that I'd apply to the Woods Hole Institute and hopefully get to explore the oceans. That was my plan. But my parents had other ideas about my future. "You want to study the ocean?? No, you're not!" They thought I was nuts. My father made it perfectly clear that he was paying the bills so I'd have to follow *his* plan. So I let my parents push me into getting a degree in music education at a local college.

But as soon as I graduated from college, I headed straight for the West Coast and went to San Francisco State University for five years where I earned 142 credits as a chemistry and biology major. While at SF State, I took an independent study course in genetics, another unchartered frontier just like the oceans. In the 1960s there were no textbooks for genetics. You had to read the literature in scientific journals. And there were plenty of opportunities to do original research. But the lab work and the Petri dishes were all boring to me and I couldn't see myself doing this for the rest of my life. It was much more exciting to explore the frontier of the human brain. I became very interested in neuroscience and still try to read books and science journals about the brain and neurology whenever I can.

Under the influence of my older sister, I then applied for medical school and got on the waiting list of a college back in Philadelphia. There was no way I was going back to the East Coast so I wrote the school a letter telling them to take me off the list. It was one of the hardest decisions I had ever made at that point in my life, but being a doctor was really not something I wanted to do.

And so I kept searching. I didn't know exactly what I was searching for but I knew I hadn't found it yet.

After leaving SF State, I taught in the San Francisco Public School District for seven years as a substitute teacher. Some of the better assignments ran for weeks at a time and the last assignment I had was as a long-term sub for an entire year teaching math and instrumental music in junior high. Then Proposition 13 came along and I was laid off. My personal life was also in upheaval so I went to Europe for several months as a way of dealing with my mid-life crisis. After I returned to San Francisco in 1981, I decided to move back to the East Coast to Alexandria, Virginia to stay with my younger sister and her family while I figured out what I wanted to do with the rest of my life.

One evening I attended an international piano competition at the University of Maryland and someone in the row behind me came in late and apologized by explaining that he got held up with some programming task in the computer lab. Computers! Computer programming!! That's what I could do!!! I could work as a programmer by day and do nonfiction writing projects at night and on weekends. It sounded like a good idea.

Learning computer programming languages by immersion was something that appealed to me.

The University of Southern California had a Computer Training Center in Arlington, Virginia where you could earn a Certificate in Computer System Applications. It was learning computer programming languages by immersion—something that appealed to me. The 600 hours of formal instruction ran from eight in the morning until noon or one o'clock. There were no classes in the computer lab in the afternoon so I would stay there and work until six o'clock. At the end of the course I got my certificate and soon got a job as an assembly language programmer working on telecom signaling and protocols. Datatronix, Inc. was located in Reston, and having had plenty of experience with Beltway traffic, I knew I wanted to live very close to where I worked.

And there was plenty of work to do. The eight-hour day became a ten-hour day. Then I found myself working on Saturdays onsite at MCI's switching office in Washington, DC. I knew Sunday would be next and I wouldn't be able to say no. The work eventually took over my life. In the evenings I was unable to write and recall the English words I needed to form sentences because assembly language commands filled my head. The full-time and over-time programming was affecting how I thought. After about a year of this increasing interference with my ability to do creative writing of any kind, I resigned...and began again to search for something that would hold my interest.

I began research for a biography of Ada Lovelace, the first programmer.

I did research for the authors of two books on artificial intelligence and turned to science writing for smaller publications like *Medicine and Computer* and the NYNEX magazine *IMPACT*. I began research for a biography of Ada Lovelace, the first programmer, and went to London for three months to review documents at the British Museum. I also got to see Charles Babbage's analytical engine at the British Science Museum. And this was the trip where I met the folks from *The Economist*, a meeting that resulted in my traveling to Palo Alto and the interview at CPSR. I eventually got offered a book contract with Simon & Schuster, but after discussing the terms and the amount of the advance with my agent, I decided to abandon the book. It was a good thing I did because sometime after that, someone else published Ada Lovelace's biography.

COOK Report: How do you think your programming background affected your election work?

Waskell: I certainly didn't consider myself a computer expert. Not at all. But what the programming background did do is give me a good basic technical *vocabulary* which at least allowed me to follow and understand a technical paper or a conversation between computer experts. I could read the tutorials on the RSA site about cryptography, for example, and know what the heck they were talking about. *And most importantly, I now knew what I didn't know about computers and security.* That was the key.

3. US Election Administration: People, Processes and Technology

COOK Report: Why don't you give me a very brief overview of election administration and what you think is important for our readers to know.

Waskell: The state's authority to regulate elections is clearly spelled out in Article I, Section 4(1) of the US Constitution. The states in turn have left the details of the actual administration of elections to over 10,000 local election jurisdictions, like counties, cities, townships, and villages, all of which exhibit enormous variety in size, demographics, entrenched political traditions and unchallenged political cultures. An October 2001 GAO report entitled *ELECTIONS: Perspectives on Activities and Challenges Across the Nation* <http://gao.gov/new.items/d023.pdf> notes that the states permit the local jurisdictions "considerable autonomy and discretion in the way they run elections." This highly decentralized nature and lack of uniformity, even within a state, is always something to keep in mind when talking about election reform. Terminology is also very confusing because different jurisdictions have different names for the same thing.

The states permit the local jurisdictions "considerable autonomy and discretion in the way they run elections."

- GAO report on elections, October 2001

There is also no meaningful oversight, no meaningful election monitoring, and not much accountability at the local level. Furthermore, election administration has a very long history of being blatantly partisan, especially in close and controversial races, stretching back to the time of George Washington. And local jurisdictions have historically done their own thing with little interference from well-informed citizens. And please note that Local Election Officials (LEOs) feel very strongly about their autonomy and discretion... and their fiefdom. The LEO is somewhat like an election czar or czarina. And that's not just my personal opinion, but a general observation made by citizens at the grassroots, election law experts, and election officials themselves who don't like being told how to do their jobs.

Our crazy quilt of election management approaches is not the only thing that distinguishes US elections. Our ballots are extremely complex, especially in California, with all of its initiatives and referenda. Presidential elections in other countries frequently have only one race on the ballot, for example. So hand-counting these paper ballots is pretty easy and reliable and accurate. Also keep in mind that LEOs have to run elections on a shoestring budget; they can only purchase and use voting equipment that has been certified by the state; and they must follow the state's election code. If it's not something required by law, the LEOs can and do use their discretion about how to pro-

ceed. And don't forget that any hot-button issues heavily and publicly pushed by the political parties are almost always put on the front burner. And don't underestimate the pressure LEOs are under from the media to get election results quickly. It's always a balancing act. Speed versus accuracy. Quite often it's speed that wins. Not always, but often enough.

Don't underestimate the pressure local election officials are under from the media to get election results quickly.

COOK Report: Aside from the 2001 report from the General Accounting Office you mentioned, is there anything you can recommend to election newbies that would give them an introduction to all of this?

Waskell: CountedAsCast.com is a good place to start. The homepage has a link to "Issues" <http://countedascast.com/issues/issues.php > which contains a brief summary of the key issues and links to many reports from government, academia, and citizen-based organizations. The table of contents is very well organized and you have a wide range of topics to choose from.

COOK Report: What kind of people are local election officials? What are their backgrounds?

Waskell: According to a Congressional Research Service survey that was updated February 27, 2008 <http://earlyvoting.net/datafordemocracy/materials/dfd-fischer.pdf>, "the typical LEO [local election official] is a white woman between 50 and 60 years old who is a high school graduate. ...and earns under $50,000 per year. ...and she believes that her training as an election official has been good to excellent." The 60-page report also says that this description "does not capture the diversity within the community surveyed." For example, a large county or city with thousands of precincts will likely have a LEO with a Master's Degree, but this usually isn't the case in small to mid-sized jurisdictions. And in many small rural jurisdictions with well under 50 precincts, the LEO or county clerk works in an office that handles additional jobs like recording deeds and other public records, issuing marriage licenses, processing land records and so on.

COOK Report: Were there any earlier reports that discussed problems with election administration?

Waskell: There's Joseph P. Harris' 1934 classic 453-page book entitled *Election Administration in the United States*, which identified many of the problems we're facing today—more than 75 years later. <http://openlibrary.org/b/OL6302208M/Election_administration_in_the_United_States>

In the Author's Preface, Harris writes, "This study was undertaken because of the present backward and generally unsatisfactory administration of elections." Chapter IX on Election Fraud is especially enlightening and talks about how the local political culture impacts the local election department and especially the people working at the polls. Harris also discusses examples of blatantly partisan election officials. The good news is that since November 2000 and the well-publicized partisan antics of Secretaries of State Katherine Harris in Florida and Kenneth Blackwell in Ohio, and the black eyes that some news-worthy LEOs received, there's been widespread recognition of the need in election administration for not only professionalism, but also for all election officials to be neutral.

The bad news is that this recognition was a very long time in coming. For it wasn't until after the Florida fiasco that there was anything resembling a sustained public debate or public conversation, let alone widespread acknowledgement, about the need for neutral and professional election management.

COOK Report: So once again, we see that a crisis resulted in people finally paying attention to a long-neglected problem.

Waskell: Right. But let me get back to some more good news. A fine example of how uniformity within a state can improve the quality of election management is Oklahoma, which has a uniform statewide voting system. The vote-counting software was originally bought from a vendor many years ago, and is managed and upgraded as necessary at the state level and then distributed to the counties. So the vendor's control in Oklahoma is minimized. Moreover, when you compile a nationwide list of election day voting equipment that malfunctions, as the citizen-based VotersUnite! (http://www.votersunite.org) has done, you'll find that Oklahoma has few problems. They're at the very bottom of this list and that's a very good thing.

I also have to say that some jurisdictions do try very hard to manage as much of the election as possible *without* help from the vendor. Marin County, California and Luzerne County, Pennsylvania come to mind.

A fine example of how uniformity within a state and minimizing vendor control can improve the quality of election management is Oklahoma.

And here's a fine example of transparency with absentee ballots that I'd like to see replicated across the country. For the last five years, Whatcom County, Washington has trained a group of citizens in how the county processes absentee ballots. Citizen monitors are now present at every step of the process, like the receipt of the voted ballots from the post office, the opening of the envelopes, and the verification of signatures. As Marian Beddill, who helped set up the monitoring process, noted in an August 5, 2009 online post at the watchdog group Black Box Voting, "Citizens can also watch (and later, get copies to verify) the log-sheets of the tracking of the batches of ballots from 'station to station.'" This is what I call a transparent process. And if the strong push toward no-fault absentee voting continues to gain momentum, as it is now doing, we'd be very foolish if we didn't also support a simultaneous strong push toward transparency. Since I doubt that the political parties or elected officials would ever get on board with a transparent process like this (It's really not in their best interest.), it will be up to the grassroots to demand it. So far, the demands of the grassroots in this regard are being totally ignored. The cost-saving argument has won the hearts and minds of the decision-makers. Here's an excellent summary of citizens' concerns that rarely get serious attention: Top 10 Problems with Expanding Absentee Voting <http://www.blackboxvoting.org/top-10-problems-with-expanding-absentee-voting-handout.pdf>.

4. Origins and Early Evolution of Computerized Voting Systems

COOK Report: Now that we've touched on the development of election administration, tell me how computerized vote counting systems made it into the electoral process.

Waskell: I'll be very brief. Los Angeles and Fulton County, Georgia were among the first jurisdictions to use computers to count votes in the mid-1960s with software developed by IBM for the Votomatic punch card system. A group of IBMers bought the necessary licenses and went off on their own to found Computer Election Systems, Inc. (CES) which was based in Berkeley, California. The CES punch card system took off like wildfire throughout the 1970s. An aggressive sales force found it rather easy to persuade election officials to purchase this new state-of-the-art technology to replace the antiquated, clunky lever machines. A vendor rep was quoted in *The Wall Street Journal* as saying that, I'm paraphrasing, about the only thing that can go wrong with the Votomatic is that the light bulb burns out. (The first Votomatic models had a small gooseneck-like lamp that shined light on the pages of the ballot booklet.) No one seemed to notice, or to care, that punch card technology was first used to tabulate the results of the 1890 census. Furthermore, all of the early computerized voting systems (punch cards, optical scan and touchscreens) were subject to the rule of the production triangle, i.e. of the three attributes—good, fast and cheap—any given product can only have two of them. Guess which two were give top priority by the vendors' clients? In short, there was never any real demand for high-quality and secure voting systems.

Speaking of security. One advantage the lever machines had was that to rig an election you'd have to tamper with one machine at a time, a pretty time-intensive activity. Another great advantage the lever machines had was that election officials could easily understand them. So could the candidates and the general public. They were transparent in this sense. On the other hand, the disabled community has always loathed the lever machines because they make it impossible for their constituents to vote without assistance, a process that violates their right to cast a secret ballot.

COOK Report: So transparency was what changed when computers were introduced into the mix?

Our public servants gave up their ability to understand, and hence control and effectively manage, the vote counting process.

Waskell: Absolutely. I think it's fair to say that there was a sea change in transparency and accountability and a tectonic shift in control when we switched from mechanical to electronic vote counting. And it's *control* of a process that influences all of the downstream factors that typically emerge in the debate over lever machines versus computers. So when we eagerly and somewhat

blindly went from the lever machines that every election official could understand and control to computerized voting systems that no election official could truly understand and control, it was in fact a colossal and unexamined Faustian bargain. Election officials got so-called state-of-the-art technology, speedy election results, efficiency and cost savings in the short-term. But our trusted and dedicated public servants also gave up their ability to understand, and hence control and effectively manage, the vote counting process. As Tom Stoppard the British playwright wrote, "It's not the voting that's democracy, it's the counting." For even if you have a fully transparent and perfectly functioning voter registration system that's run by the Pope, Nelson Mandela, the Dali Lama and their trusted friends, the vote-counting computer has the last word. Always.

COOK Report: So using computers to count votes was a Faustian bargain of gigantic proportions?

Privatization was packaged and sold as modernization, efficiency, cost savings, a way to speed up ballot processing and the release of election results, and cost savings. No one seemed to notice that control of the vote counting had now silently and irrevocably passed from our public servants who could be held accountable to the anonymous and unaccountable employees of a private company.

Waskell: Yes, it was. There were *definitely* efficiencies to be gained and speedier election results—after all of the kinks were worked out—but election officials without technical expertise now had an IT system to manage...so it was the vendor who really controlled things. Our public elections, and most importantly the vote counting, were now privatized. No one ever used that word, of course. The privatization was packaged and sold as modernization, efficiency, cost savings, a way to speed up ballot processing and the release of election results, and cost savings. No one seemed to notice that control of the vote counting had now silently and irrevocably passed from our public servants who could be held accountable to the anonymous and unaccountable employees of a private company. This shift in control was the death knell death for transparency on so many levels.

COOK Report: What you're saying is that the vendors showed off their magical technology and said it would solve most, if not, all of the problems that election officials had.

Waskell: Yes, and people continually bought the marketing hype hook, line and sinker...not only from CES but from Sequoia Voting Systems and a handful of other much smaller companies which were subsequently acquired by CES. But CES had the dominant market share right from the very beginning. Through a series of acquisitions over the years, CES became Business Records Corporation that eventually grew into Election Systems & Software, Inc. (ES&S), today's dominant vendor.

Another very important point to keep in mind regarding the early days of computerized voting in the 1970s and 1980s is that the vendors had the luxury—even then—of a non-existent regulatory environment, much like they enjoy today. It was laissez faire in the extreme. Anyone could develop

a voting system and sell it to a county after the system went through a fairly non-rigorous state certification process that never ever included a line-by-line inspection of any vote-counting software because it was a trade secret. There were no standards for accuracy, accessibility, auditability, realiability, recountability or security. Human factors, usability and accessibility were never seriously considered as requirements for certification. No government agency required mandatory background checks on the vendors' employees, including the programmers.

Anyone could develop a voting system, and then sell it after a state certification process that never ever included a line-by-line inspection of any vote-counting software because it was a trade secret.

COOK Report: It sounds like the frontier days of the Wild West.

Waskell: It was like Dodge City...without Wyatt Earp. To this very day there is still no government agency that serves as a watchdog for either the voting system industry or their domestic and overseas subcontractors. By comparison, the financial industry had the Securities and Exchange Commission, the Office of Thrift Supervision and the Office of the Comptroller of the Currency to deal with. These watchdogs were soundly asleep at the switch throughout the build-up to our recent financial crisis but at least there were watchdogs in place. The voting system industry is watchdog free. And by watchdog I mean a regulatory agency with adequate resources and brain power, subpoena power, criminal penalties, robust enforcement, surprise inspections, and strict reporting requirements regarding the deep ownership of a company. What functions, or rather what malfunctions as "regulation" today is short-lived negative publicity and a letter of reprimand or a slap on the wrist from a non-regulatory agency severely handicapped by lack of resources. I'll talk a bit later about the vendors' perspective on regulation, because they're under the distinct impression that they *are* regulated. Some election officials also mistakenly believe that vendors are regulated.

The voting system industry is watchdog free. What malfunctions as "regulation" today is short-lived negative publicity and a letter of reprimand from a non-regulatory agency severely handicapped by lack of resources.

COOK Report: Did laws have to be changed to permit computerized voting?

Waskell: Yes. Enabling legislation was always needed at the state level to allow for this new computer-based technology. Now take a wild, wild guess about who had enormous influence in the state capitols in shaping this legislation? It wasn't mainstream computer scientists or security experts. It wasn't members of the general public or concerned citizens or good government groups. It was the vendors. Election officials in Chicago proudly told me that CES practically wrote the enabling legislation for Illinois. They were thankful for the help. Who knew the voting systems better

than the manufacturer? Why wouldn't the vendors be intimately involved in writing such complicated legislation?

Chicago election officials proudly told me that the vendor CES practically wrote the enabling legislation for Illinois. It was a complicated bill. They were thankful for the help.

Also keep in mind that the very first voting systems in the marketplace—and the marketplace here refers to our election departments that are part of county government—were pretty primitive and had such minimal features that upgrades, or more like patches, were necessary on a continuing basis as the voting systems slowly evolved.

COOK Report: What did you mean by saying earlier that the switch to computers was the death knell for transparency? Give me some concrete examples.

Waskell: First of all, we need to understand that *without transparency there cannot be trust, lasting trust. Period. Transparency and trust are two sides of the same coin and essential, distinct attributes of democracy. So while everyone agrees in principle that transparency in our elections is a good thing, in practice it's a whole other story, and a very sad story I'm afraid.*

Let me quickly throw out a few dictionary definitions here because they're integral to any discussion of a free and fair and honest election. Transparency is something that is clear, easily understood or detected; the opposite of transparency is opaque, complex, confusing or dishonest. Trust is a firm belief in the honesty, reliability. etc. of another. And always keep these three things in mind. First, it's difficult to trust a process that's secret. Second, privatization is incompatible with transparency. Third, trust but verify must be the guiding principle behind every critical step in a democratic election.

The most important example is that the vote counting takes place invisibly inside a computer. It's a secret. It's concealed. That's critical. We have public elections where the counting is concealed and hidden so public observation and scrutiny is impossible. And before anyone calls me a Luddite, let me point out something else that's critical and often overlooked. This very non-transparent manner of counting votes is *not* surrounded by rigorous and visible checks and balances, rigorous and routine auditing methodologies, exhaustive checking and rechecking of basic math, meaningful recount procedures, and extensive election monitoring. None of these mitigating factors are present and accounted for. None of them. Not a single one. Instead, we have a little bit of this factor, a fragment of that factor, a pint-size audit, a wee bit of basic math, and itsy-bitsy oversight.

Keep these three things in mind. First, it's difficult to trust a process that's secret. Second, privatization is incompatible with transparency. Third, trust but verify must be the guiding principle behind every critical step in a democratic election.

I don't want to sound even a wee bit flippant when I use words like itsy-bitsy and pint-size, but I do want your readers to understand that *the world of banking has the equivalent—in spades—of each and every one of these "mitigating factors" that is either seriously flawed or missing in action in the world of elections.* That's the point I'm trying to make.

Here are some concrete examples of the lack of transparency in election procedures. The processing of absentee or vote by mail ballots is not anywhere in the vicinity of end-to-end transparency anywhere in the country, except for Whatcom County, Washington which happily has blazed a five-year trail of transparency...that's being ignored as far as I can tell. Second example. On election night, the voted ballots and/or cartridges with vote totals are dropped off at a particular location, like the front steps of the courthouse or another county building. Some time later, perhaps hours and hours later, these objects are suddenly brought into the room with the main election computer to be processed. How, where, who and what happens to these objects during the entire time they're out of everyone's sight is typically a mystery. It's faith-based processing in that we have to have complete faith and blind trust that nothing dishonest is going on behind the scenes. *I am not accusing anyone of anything when I say this.* I'm simply describing what happens in the real world on election night in the vast majority of jurisdictions in the United States of America. In some places this situation will not present a problem at all; in other places it will be a *huge and insurmountable* problem. Every jurisdiction handles this situation at the discretion of the LEO.

In Los Angeles County, for example, the LEO does allow election observers to closely watch the punch card ballots (which are marked by voters with ink, not punched out) being received and processed at the main facility before they go to another area to be centrally counted. That's an A+ for transparency in this one portion of the chain of custody for the ballots as they undergo election night processing. (Transparency in the central counting room is a different matter altogether.)

COOK Report: This laissez faire environment and lack of transparency reminds me of the Wall Street bailouts and the moral hazard that existed in so many financial transactions. And it appears that each jurisdiction's public elections for all federal, state and local offices and ballot measures throughout the 1970s and 1980s and perhaps for longer, basically served as a huge nationwide beta testing process for private companies at taxpayer expense.

Waskell: Yes, you could say that. A county would uncover a flaw in the system during pre-election testing or frequently during a real election, say, in the vote-counting software or in the ballot layout software. The vendor would correct the problem and hopefully it would disappear. Unfortunately, there's no such thing as bug-free software so different kinds of problems kept cropping up again and again. Along with this never-ending error-correction process, new features would be added to the voting system on a regular basis.

COOK Report: And throughout this time, none of these patches or upgrades that the vendors made to their software were ever examined by anyone.

Waskell: That's right. The concept of trust but verify wasn't that popular in the world of elections.

5. You can't have democratic elections if you have vote counting that's a secret.

COOK Report: And the issue of proprietary code and its impact on elections was something you realized right from the very beginning?

Waskell: Absolutely. That's one of the core issues. You can't have democratic elections if you have vote counting that's a secret.

COOK Report: Did others see it the same way?

Waskell: Yes, everyone I talked with saw it as a problem—except for the vendors and election officials and, of course, the elected officials, i.e. the people who were put into power by virtue, or vice, of these voting systems.

COOK Report: But there must have been some warnings about the consequences of privatizing this critical part of elections.

Waskell: Yes, there were many warnings from many different sources and all of the warnings were ignored. Endlessly rationalized and/or totally ignored.

COOK Report: For example?

Waskell: First and foremost there was a 1975 report by Roy G. Saltman at the National Bureau of Standards, which is now called the National Institute of Standards and Technology (NIST). The Final Project Report dated March 1975 is entitled *Accuracy, Integrity, and Security in Computerized Vote-Tallying* <http://csrc.nist.gov/publications/nistpubs/NBS_SP_500-30.pdf>. At Saltman's request, an identical report was reprinted in 1978 as NBS Special Publication 500-30 so that it could be stored in the federal depository libraries and be available for future generations. Otherwise, the 1975 report probably would not have been retained and we'd have no way to learn about a critical public policy recommendation that was pointing us in the right direction.

Saltman wrote in 1975, "The elections administration must assume responsibility for all vote-tallying activities. It if does not, or it cannot because it does not have the expertise to do so, it is not fully carrying out its assigned governmental duties. The vendor, on the other hand, ought not to assume any responsibility for vote-tallying."

This report is widely known and respected in the election field and best summarized by a knowledgeable commentator as the report that "says it all." Saltman very clearly stated that the vendors should not take on any responsibility for the counting of votes. Let me quote from the bottom of page 6 in a list of Findings regarding Improving the Management of the Election Preparation Process. "A situation in which conflict of interest is a serious concern may be prevented if a vendor of election system components does not assume any responsibility for vote-tallying operations." And in case you missed it on page 6, the admonition was repeated at the top of page 77 in the section entitled Assurance of Management Control. "The elections administration must assume responsibility for all vote-tallying activities. It if does not, or it cannot because it does not have the expertise to do so, it is not fully carrying out its assigned governmental duties. The vendor, on the other hand, ought not to assume any responsibility for vote-tallying. To do so would be to assume a governmental function which the vendor is not entitled to assume. Prudence should dictate that the vendor should limit his involvement to the supply of fully operational equipment."

I also remember reading a Coopers & Lybrand report that reviewed election procedures in Pinellas County, Florida at some point in the early 1980s I think it was. There was a brief mention in the report about the role of the vendor to the effect that the vendor should not be responsible for vote counting. Of course, this recommendation was totally ignored by the LEO who had requested the report in the first place.

In addition, throughout the development of the voting system standards by the Federal Election Commission (FEC) in the late 1980s, comments submitted from Election Watch, a citizen-based watchdog group based in southern California, consistently and very clearly warned about the dangers of secret vote counting and the powerful role that the vendors played in elections. These comments came from Election Watch members Mae Churchill, who passed away in February 1996, David Stutsman and Howard Jay Strauss. Irwin Mann, a mathematician at New York University, called for open source election software in a paper he presented at the Computers, Freedom and Privacy conference in 1993 in Burlingame, California.

By the way, the five papers from the panel on electronic voting and elections at this conference give an excellent introduction to the topic. I was also on the panel and presented a paper, an overview of computers and elections, along with Rebecca Mercuri, Roy Saltman and Michael Shamos. You can find the five papers here <http://cpsr.org/prevsite/conferences/cfp93/home.html/>.

So all of these warnings from citizens in the public sector about the dangers of trade secret election software and secret vote counting were given to the FEC, an entity created to protect the public interest, but also one that was quickly captured by the vendors. Now the FEC had also issued numerous publications regarding implementation strategies for voting systems and guidelines for model contracts with the vendors. These publications contained not a word about the impact of privatization. Nothing. The information coming from the FEC just officially reinforced the idea that trade secret software was perfectly okay in public elections. I'll cover the history of the development of the voting system standards at the FEC in Chapter 13.

COOK Report: And it would automatically follow that if the vote-counting software was not open but proprietary, then the vendor had control of the process.

All of these warnings were given to the Federal Election Commission, which protected and respected the interests of the vendors.

Waskell: Yes, indeed. And keep in mind that it's not just the vote-counting software that's proprietary. There's the election management system, the ballot layout software, the voter registration system, the software that runs the electronic pollbooks, the software that processes and tracks absentee ballots, the signature verification software used in absentee (or vote by mail) and provisional ballot processing. There's also special software that has to be used to combine vote totals from early voting and election day voting. But only the vote-counting software has to be certified. [**Editor**: Waskell will show that the certification process has serious flaws.] All of the other election-related software is uncertified and unregulated and does not have to undergo a line-by-line inspection. And it's the contract that the counties sign with the vendors when they purchase the voting equipment that makes it perfectly legal to impose this trade secret software on local government. I'll talk more about the contract in a bit.

COOK Report: From just what you've said, the contract creates a deep dependency on the vendor.

The election management system, the ballot layout software, the voter registration system, the software that runs the electronic poll books, the software that processes and tracks absentee ballots, and the signature verification software used in absentee and provisional ballot processing is all proprietary, unexamined and unregulated.

Waskell: Yes, it does. This arrangement makes the election officials and vendors joined at the hip once a voting system is purchased. The LEO has just gone before the county commissioners or board of supervisors and persuaded them to purchase voting system ABC for millions of dollars. The LEO now has a natural incentive to defend the system, even if it turns out to be a lemon. Furthermore, none of the vendors' products are compatible with each other, so a LEO would find it very difficult to opt out of using a voting system once it's installed by the vendor, even when serious flaws are found further down the road. Therefore, the election business typically has captive customers that rarely take the risk of criticizing a voting system in public. The vendors also come down hard on any LEO who violates the contract. Yes, there are LEOs who migrate to another vendor when something egregious happens and it can clearly be pinned on the vendor. Nonetheless, the rate of churn or customer turnover in the election industry is nothing like what you see in the cell phone industry, for example.

And keep in mind that today's major vendors are vertically integrated. Each one offers a full range of election products and services that include all manner of precinct supplies like ballots, ballot boxes, security seals, transport cases, reconciliation logs, and all manner of services like printing, ballot preparation and layout, training, vote counting and technical support.

*People working at the **Federal Election Commission's National Clearinghouse on Election Administration** actively enabled and defended the privatization of elections.*

The numerous guidelines and publications issued over the years by the FEC's National Clearinghouse on Election Administration didn't criticize the existing election system or the voting equipment at all. The publications and the people working there actively enabled the privatization of elections and defended it every change they got. At the same time, the FEC publications recommended that the LEOs control as much as they could. But given the reality of the limited resources at the local level and the very close relationship between the LEO and the vendor, this recommendation could never really be implemented. And it wasn't. It looked good on paper but that was about all.

6. Quoted on the Front Page of The New York *Times*

But she was "armed and dangerous."

COOK Report: Back in 1994 when you first told me you were interested in these problems I was very aware of them because I remembered well that Ronnie Dugger had written about them in his *New Yorker* article.

Waskell: Indeed, he did in the November 7, 1988 issue <http://www.newsgarden.org/columns/dugger.shtml>. The article was entitled *Counting Votes* and appeared in the magazine section called *Annals of Democracy.* It gave a very good overview of the context in which elections are administered. But some of the issues the article discussed, like the need for standards, were also very well documented in Saltman's 1975 report.

COOK Report: Let's go back to your personal story. What happened after you first heard about proprietary vote-counting software while you were in California?

Waskell: When I got back to Virginia, I knew I had to meet David Stutsman because I thought he was either really onto something or he was off his rocker. I needed to find out which. I met him at a Chicago airport and had asked him to bring some transcripts of the trial, including the testimony of Deloris Davisson, his computer expert. This testimony would allow me to find out more about the work she had done with the CES source code. Davisson enlisted her graduate students in the work and they had easily figured out how to change votes without leaving a trace.

Why would anyone certify a voting system with the ability for the computer operator to turn off the audit log?

I returned from Chicago with piles of transcripts and devoured them in disbelief. And there were reports by Davisson, the computer expert who testified at the trial. Stutsman also called in a computer security expert. I talked with them for hours and hours on the phone and in person and also studied the transcripts some more. I was absolutely amazed at the documented vulnerabilities of the punch card voting system. *For example, the software was very interactive with the computer operator, frequently asking for manual input about how to proceed.* But the audit log could be turned off! So if the computer operator did something nefarious, that person could simply turn off the audit log during the process and no one would be the wiser. Why would anyone certify a voting system with the ability for the computer operator to turn off the audit log??!

In conversations with David Stutsman about his lawsuit in response to a 1982 Congressional election, I found out about another lawsuit stemming from a 1980 Congressional election in West Virginia where a computer expert named Wayne Nunn was hired by the plaintiff. Nunn had an oppor-

tunity to examine the source code for CES' earliest punch card system, the Alpha Ballot Tab. He told me that he found a debugger in the software that was also a Trojan horse, i.e. the debugger could be used for something other than its intended purpose which was to find and repairs bugs in the software. Nunn also noted that the design of the equipment included a row of readily accessible toggle switches on the front that allowed you direct access to memory and the ability to miscount the votes and/or reprogram the software. I couldn't image how anyone could possibly justify having that feature on a voting system!

There were toggle switches on the front that allowed easy, direct access to memory and the ability to reprogram the software. I couldn't imagine how anyone could possibly justify having that feature on a voting system!

So throughout the spring and summer of 1985 I traveled to Charleston, West Virginia and spent days talking with Wayne Nunn and other people involved in the lawsuit. It's an understatement to say that I was shocked at what I heard and then what I read in the court documents and testimonies.

COOK Report: Give me one example from West Virginia.

Waskell: *You could use a summary card, which was the same size and shape of a punch card ballot, to add votes to the running totals of a selected candidate.*

COOK Report: Ouch!

Waskell: Yes, indeed. Ouch! But back to my travels. In addition to West Virginia, I also made many trips to Carroll County, Maryland and talked extensively with the people there involved in an election lawsuit. I ultimately ended up with research on lawsuits in three different states. The computer experts who had looked at the vote-counting programs all said how poorly written they were, as if by amateurs. They lacked very basic security features. There were many vulnerabilities, memory kept being redefined, and so on. So after all of these interviews and related research, I now had piles of documents and realized I had a tiger by the tail. What newspaper would be interested in this? *The New York Times*. Luckily they had an office in Washington, DC. I phoned David Burnham and he immediately wanted to learn more about what I had uncovered. He was already aware of the problems with computerized elections and I later learned that he also knew Mae Churchill, the founder of Election Watch.

I took a box full of selected documents to *The New York Times* office in Washington, DC and met with Burnham. That was the first time I had been in the newsroom of a major newspaper and I had several flashbacks to the movie *All the President's Men*, one of my all time favorites. I stood at the copy machine for hours and hours on several different days and would occasionally turn around, half-expecting to see Robert Redford and Dustin Hoffman sitting at their desks. Anyway, it turned out that the information about the three lawsuits was exactly what Burnham needed to convince an editor that the story was worth pursuing.

Burnham's article was entitled *Computerized Systems for Voting Seen as Vulnerable to Tampering* <http://www.newsgarden.org/columns/burnham1.shtml> and it ran on the front page of the July 29, 1985 issue. I was quoted in the article. Finally, the mainstream media was reporting on a problem that was long overdue for some serious attention. I was thrilled. I was also extraordinarily naïve. And absolutely clueless and what would happen next.

I thought this was going to help "solve" the problems I had discovered. I somehow thought that even though election officials were unaware of or dismissive of these lawsuits and all of the similar problems that were going on all over the country, that if they were only made aware of the lawsuits and the vulnerabilities that has been identified in court testimony, they would see the light, get tough with the vendors, and demand improvements. After all, I was handing them the ammunition they needed.

I was wrong. Dead wrong. The reaction to Burnham's article from the election community and vendors was swift and strong and drenched in defensiveness. Eventually I was referred to as a crazy and called Chicken Little. The term conspiracy nut was thrown in occasionally.

One woman shook her finger at me, while the other two heads nodded in eager agreement, and said, "How dare you?!" She used those words. "You should be ashamed of yourself for saying such things because if voters read something like that they won't vote."

I'll never forget one of the IACREOT (International Association of Clerks, Recorders, Election Officials and Treasurers) conferences I attended soon after Burnham's article appeared. During one of the break-out sessions for election officials, I somewhat reluctantly identified myself as the person quoted in *The New York Times* article and meekly defended the content of the article in a somewhat hostile environment. Several people had just said what a terrible article that was and how voting systems are secure and the reporter who wrote the article was irresponsible blah blah blah. I was walking down the hallway after the session when a group of three Florida election officials came up behind me, and firmly and in no uncertain terms berated me for saying that voting systems were vulnerable to tampering. One woman shook her finger at me, while the other two heads nodded in eager agreement, and said, "How dare you?!" She used those words. "You should be ashamed of yourself for saying such things because if voters read something like that they won't vote." They. Won't. Vote! And of course we cannot have that!!! I was too stunned to say anything. I stood there wide-eyed in disbelief and let them finish expressing... their thoughts...not because I was being polite, but because I couldn't move. My blood stopped moving. When the tongue-lashing was over, I headed straight for the ladies room to regain my composure. Good thing I did because what I had just experienced was only a prelude to the grand finale that took place in the gigantic main hall, as opposed to this intimate hallway setting.

There was a crazy woman from Virginia going around the country saying that voting systems were vulnerable to fraud. She was a La Rouchie. She wore a wig and carried a gun! A collective gasp went up from the audience. She was armed and dangerous!! Stay away from her and don't believe a word she says!

A federal government official, who has since worked for two different vendors, jumped onto the podium in front of hundreds of election officials, grabbed the microphone, and made an impromptu announcement warning the audience that there was a crazy woman from Virginia going around the country saying that voting systems were vulnerable to fraud. She was a La Rouchie. (Lyndon LaRouche was the perennial third-party president candidate who lived in Leesburg, Virginia which was not too far from Reston.) She wore a wig and carried a gun! A collective gasp went up from the audience. She was armed and dangerous!! Stay away from her and don't believe a word she says! I was standing in the back of the room and went numb in disbelief. A quiet, short-lived murmur of fear-induced comments filled the room for a few seconds. The slanderer quickly put the microphone down, stepped off the podium, and disappeared into the crowd. I headed straight for the ladies room. At some point thereafter it dawned on me that now that the character assassination had begun in earnest, I must be on to something.

COOK Report: How did you handle this kind of slander?

Waskell: This outburst of lies at the IACREOT conference was not an isolated incident of slander on the part of this person; there were several others. So I asked David Stutsman to write a letter asking this person to cease and desist. The warning worked. I still have a copy of the letter.

It dawned on me that now that the character assassination had begun in earnest, I must be on to something.

Burnham wrote four more articles about election issues for *The New York Times.* The last one appeared on September 23, 1986 (*Texas Looks Into Reports of Vote Fraud*) and covered a city election in Dallas, Texas. I disliked the title of the article. The piece wasn't about vote fraud. It was about alleged manipulation of the vote count. I was very sorry to see the end of the articles. But Burnham said he was unable to interest an editor in any more stories. The problem was that there's no smoking gun. I guess the editor wanted a story about hard evidence of vote rigging and not allegations. In retrospect, I now realize that the editor obviously knew very little about elections.

7. Entertaining Ourselves to Death?

Attempts to raise the issue via the mainstream press

COOK Report: Was there any other coverage of these issues at the time?

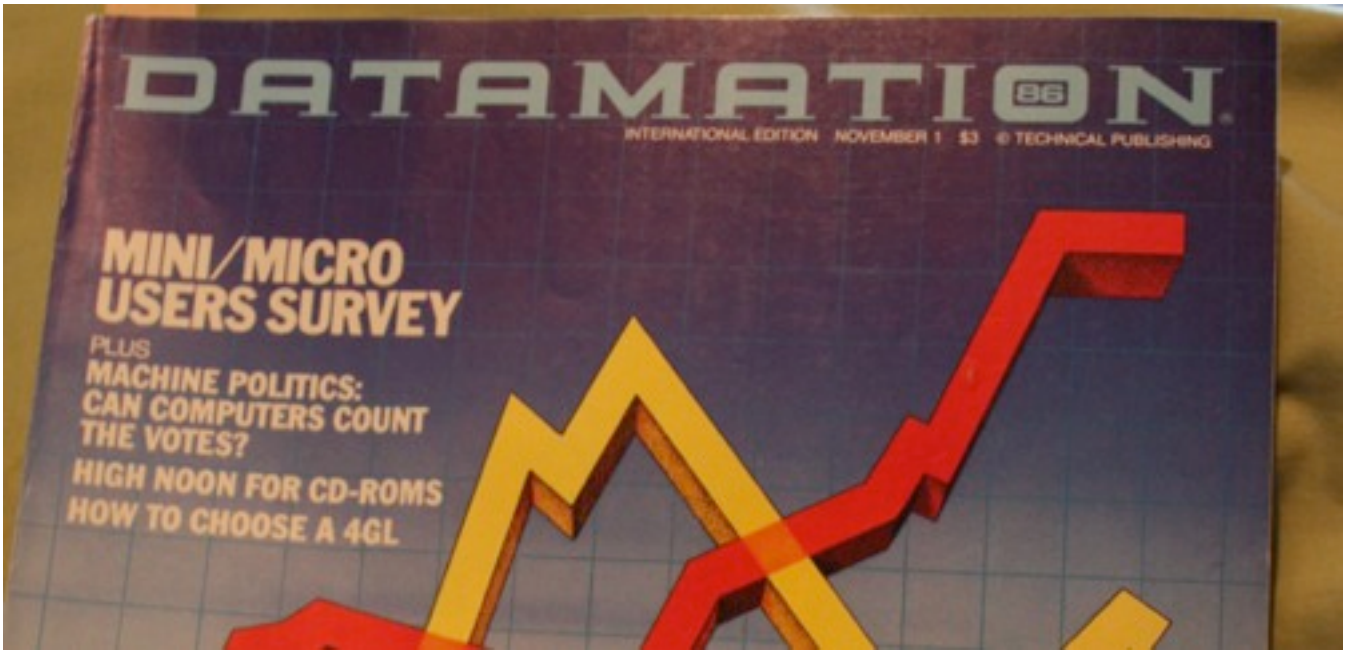
Waskell: Before I talked to *The New York Times*, I had met Willie Schatz, a staff member for *Datamation* magazine, and told him about the lawsuits in the three states and the trade secret vote-counting software. I think the reason that *Datamation* "got it" so quickly and was willing to pick up on it was that the magazine covered the topic in May 1965 and had published an article in May 1970 *Cheating the Vote-Count Systems* which described several ways someone could change vote totals without leaving a trace. Schatz was familiar with these articles and he wrote a nice sidebar that appeared in a fuller article written by John W. Verity entitled *Machine Politics* that was published in the November 1, 1986 issue. When I first talked with Schatz he was hoping that *Datamation* would publish something about computerized voting systems as soon as it could, but it turned out that *The New York Times* published something first. Nonetheless, the November 1986 *Datamation* article is well worth reading, especially now that we have some post-November 2000 election reforms in place.

There was also an article in a small Maryland newspaper, *The Carroll County Times*, by a reporter whose name I can't recall, who had been closely following the election lawsuit in that county. I had talked with him at length so he knew the key issues and asked some good questions. His article covered many of the things that Burnham's original piece did and it was published very shortly before July 29, 1985. But of course it was *The New York Times* article that got the national attention.

I should also mention that William Trombley at *The Los Angeles Times* did an excellent three-part series in July 1989. And Terry Elkins and I wrote an article entitled *Bugs in the Ballot Box* for the March/April 1987 issue of *Campaigns & Elections*. Page 21 of the article has a picture of a butterfly-like ballot from a November 2, 1982 general election in Travis County, Texas that used the Votomatic punch card system. This particular Texas ballot design is much, much more confusing than the one from Palm Beach County, Florida in November 2000. Elkins and I frequently heard stories about flawed ballot designs with the Votomatic. And yet the counties across the country kept on designing confusing ballots again and again and again. The problem never really got solved. So the story about the Palm Beach ballot was very old news to me.

These two examples aren't mainstream press but I'd like to note that in May 1986 *The Youngstown Business Journal* published a three-part series of articles I wrote entitled *Computer Vote Counting: How Trusting Should Voters Be?* There's a very interesting back-story concerning the publisher...that I won't get into. And finally, my research was mentioned in a 1990 book from The MIT Press entitled *Computer Ethics: Cautionary Tales and Ethical Dilemmas in Computing* by Tom Forester and Perry Morrison. There were about two pages of text in the section on computer and elections.

But not all of my attempts to interest the mainstream media were successful. There were many failures in this regard. I wrote an article for *The Atlantic Monthly* about my experience as a pro



bono consultant to the Florida Business Council, that conducted a court-sanctioned investigation into a 1993 St. Petersburg mayoral election. They turned it down. "Far too long and dry." This was in June 1996. I also got rejected by them for a proposal I had submitted in September 1985. I tried to get *The Wall Street Journal* interested in other aspects of elections, like the consolidation that was going on in the election industry...without any luck. Someone did a short piece for *Science News* in October 1993 after I talked with one of their staff who covered physics and mathematics. In the late 1990s I tried but couldn't get *The Economist* interested. There were also other places I could mention where I submitted queries and was turned down, but in the interest of brevity I won't. Later on I'll talk about my conversations with a producer at *60 Minutes.*

Privatized vote counting, flawed voting equipment and a lack of transparency were not generally perceived as a problem.

One of the biggest obstacles in getting editors interested enough to give a reporter a green light on a story was that privatized vote counting, flawed voting equipment and a lack of transparency were not generally perceived as a problem. People would tell me, "What you say is all very interesting and convincing, Eva, but I haven't read anything about these problems in the press." In other words, if they didn't read about it the paper, it didn't exist. Well, that was part of the problem! The press was asleep at the switch. Most of them still are. Local reporters thought that election snafus were merely a local problem and isolated events, and that the technical snafus and software glitches were just all human error. (The key word here is all.) Nothing more to it. But in fact this was occurring across the country. Trade secret software for vote counting, unreliable voting equipment, election officials without technical expertise, unaccountable vendors at the election computer on election night, poorly trained pollworkers, meaningless election observation and monitoring, inadequate explanations for anomalies in election results—this was a national problem, not just a local one.

No journalist, except for those mentioned above, ever saw the big picture. No one connected the dots to figure out that this was a national and sorely neglected problem. For example, when I first

visited the folks in West Virginia in the summer of 1985 and talked with them, they were unaware of what was going on in the other states. Hadn't seen anything in the press about it. And the vendor is certainly not going to tell anyone in West Virginia that they need to talk to an attorney and his computer expert in Indiana about problems they've found with their voting system. The vendors will always try to keep the problems out of the press and/or minimize and mischaracterize them when forced to give some kind of a public statement. That's pretty standard procedure for any business, not just the business of elections.

In addition, the press never knew what questions to ask. And they didn't bother to find out. Besides, the media is only interested in elections around election time and they cover elections like a horse race, i.e. they focus almost exclusively on the numbers, the percentage points, the numbers in the most current poll. Then after the horse race is over their interest fades completely. Furthermore, the media wants sound bites and compelling images. It wants to entertain us. A broken election system is definitely not entertaining subject matter. Journalists have become stenographers. They write down whatever an election official says and don't ask any informed follow-up questions. That's bad news in and of itself. But the really bad news is that you can't have a democracy without an informed electorate. And the job of the press is to inform, to ask tough questions of those in charge, to tell the public what it needs to know. That's a whole other dimension to the problem I won't go into. But I will say that one of the best places on the Internet for reporters to educate themselves about what questions to ask whenever they cover an election is the Media Kit that Black Box Voting put together. I highly recommend it.

Journalists have become stenographers. They write down whatever an election official says and don't ask any informed follow-up questions. That's bad news because you can't have a democracy without an informed electorate.

COOK Report: What about press coverage of lawsuits? Were the West Virginia, Indiana and Maryland lawsuits truly the earliest lawsuits or were there others in scattered state or local elections that never made the national press?

Waskell: There probably were other lawsuits from the 1970s. I really don't know. One of my best sources of nationwide news clips was people in my network, especially David Washington in Palm Beach County. He got them from people he knew and he was kind enough to give me copies of what he had, and he had lots of clips from the 1960s and earlier. I went to Florida on several occasions over two decades and that's one of the things I always returned with. David Stutsman, Terry Elkins, Rebecca Mercuri and Peter Theis in McHenry County, Illinois also sent me news clips. And speaking of news clips. The vendors back then subscribed to a news clipping service. That's in part how they kept track of how well their PR folks were doing. I thought of subscribing to a service like that myself for educational purposes but it never became an actual line item in my somewhat meager budget. Then again, malfunctioning voting systems and a glimpse of the chronic management problems in election administration were very well documented in Saltman's 1975 report.

8. By 1975, Roy Saltman Had Identified the Issues and Proposed Solutions

Highlights from post-November 2000

COOK Report: Let's talk about a few of the post-November events that stand out in your mind.

Waskell: First and foremost, I can say that since the fiasco of 2000, computer scientists from across the country have discovered weaknesses and vulnerabilities in our election technology, just as did the handful of computer experts who reviewed the vendors' source code in the 1980s. So the first-generation of citizens concerned about election integrity were correct, not crazy, in saying that there were very good reasons not to trust the vendors' proprietary vote-counting software.

Next thing I noticed was that there was a blizzard of reports from the Caltech/MIT Voting Technology Project, the Carter-Ford Commission on Election Reform, The Pew Center for the States, the Brennan Center for Justice, Common Cause, The Century Foundation, and The League of Women Voters, to name only a very few.

"There is no reason to trust insiders in the election industry any more than in other industries." **Carter-Baker Report, 2005**
But that's exactly the foundation of sand that our electoral process is built upon.

This is what caught my eye. There's one particular statement in the September 2005 Carter-Baker Report <http://www1.american.edu/ia/cfer/> that we need to remember and integrate into the election reform dialogue, and it's all but forgotten. "There is no reason to trust insiders in the election industry any more than in other industries." But that's exactly the foundation of sand that our electoral process is built upon. I'd even go so far as to say that my observation, based on 25 years of experience, it that practically all of the essential and critical procedures in elections are run on an elaborate honor system that's facilitated by insiders in the private and public sectors who blindly trust each other. It's a world of don't ask, don't tell. This is the dirty little secret of American elections in my view. This is the REAL dirty little secret and NOT the fact that elections aren't perfect, as one academic has said.

Unfortunately, this de facto honor system hasn't been squarely dealt with...or even publicly acknowledged. To do so opens you to immediate and brutal criticism. It's the third rail of election reform. And yet this core unspoken principal of blindly trusting insiders who have no meaningful oversight and no accountability is one of the fundamental contributors to the lack of trust in election outcomes. There are so many absolutely critical things that flow from this. It's like the fundamental and core question that needs to be asked when Treasury Secretary Henry Paulson, or any

other government official for that matter, meets with bank CEOs. Remember what Paulson did at the fateful October 13, 2008 meeting. He gave blank checks to the bank CEOs to sign and fill in with the amount they felt they needed. Whose interest is he serving? *Is he serving the private good of the banking industry or the public good of the taxpayers?*

The only question that counts is, Are state and local election officials serving the interests of private companies or the public's right to know? The answer to this one basic question will ultimately determine the course of events as election reform moves ahead.

So above all we need to ask, Are state and local election officials serving the interests of private companies or the public's right to know? This is the question that counts. The answer to this one basic question will ultimately determine the course of events as election reform moves ahead.

COOK Report: In this post-November 2000 world, how well did Saltman's work from the mid-1970s stand the test of time? Has it become out-dated in any way?

Waskell: It has stood the test of time and it's not out-dated. It's embarrassing how not outdated it is. Unfortunately, it was all but ignored by election officials when it came to implementing Saltman's solid and thoughtful recommendations. You could go through a complete checklist of what went wrong in Florida 2000 and I'll bet that next to all of the problems that surfaced, and the ones that were swept under the rug, were cited in that report, along with a recommended solution that was quite reasonable. That speaks volumes about the extent of the inertia that election reformers are up against.



Roy G. Saltman - prophet ignored

[**Editor**: It is as John Cassidy writes in *How Markets Fail*. Those who question the conventional wisdom are ostracized. Raghuram Rajan addressed the Federal Reserve in a Jackson Hole Wyoming conference devoted to honoring Alan Greenspan in August 2005. Rajan predicted many of the issues of the collapse three years later. Cassidy wrote, "As a rule, central bankers don't toss their chairs or rush the stage. If they had, Rajan might have been in physical danger."]

Waskell: But what I find interesting about Saltman's 1975 report is that it was written by one person and one person only. Roy G. Saltman. It took him a full year and he was paid with funds from the General Accounting Office, not from the National Institute of Standards and Technology (NIST). Furthermore, Saltman's singular and significant role in writing this report was somehow deleted from the official History of Federal Voting Systems Standards and Guidelines that appeared in Section 2.2 of the May 21-22, 2007 Draft Recommendations. When this happened, Saltman wrote a brief, fact-filled memo to the Election Assistance Commission's (EAC) Technical Guidelines Development Committee dated May 21, 2007 in which he set the record straight.

See <http://vote.nist.gov/ecposstatements/SaltmanVVSGComments.pdf>. The memo contains the paragraph written by the committee with a severe case of amnesia and Saltman's historically accurate paragraph, which he requested be given "serious consideration...for changes in wording."



Staff inspecting Votomatic ballots from the Florida 2000 election.
AP photo 2001 from a news website captured online by Waskell when it appeared.

9. Getting to Know Saltman in Person and Witnessing the Subsequent Policy Flaws

Waskell: In addition to speaking with Saltman on the phone and at election-related events, I drove to Gaithersburg, Maryland to talk with him in his workplace. NIST is a large, sprawling campus with thousands of employees in buildings covering hundreds of acres. There was one very small office with this one single person who worked on voting systems. So when people from NIST began working with the EAC and the Technical Guidelines Development Committee after the Help America Vote Act was passed in 2002, they were essentially starting from...maybe not exactly from scratch, but they most certainly didn't have the depth and breadth of knowledge and experience in elections that Saltman had. I'd like to think that one of the first things the newbies from NIST did was carefully study Saltman's 1975 report and speak with him at great length.

NIST, the government entity charged with setting standards for computer technology, was not initially, directly and continually involved in setting and updating standards for voting systems because voting systems were exempt from the Computer Security Act of 1987.

One final and significant point. NIST, the government entity charged with setting standards for computer technology, was not initially, directly and continually involved in setting and updating standards for voting systems because voting systems were exempt from the Computer Security Act of 1987. This is a very good example of where a government agency had the perfect opportunity to perform a humungous public service that was in their mission statement, for crying out loud, and Congress came along and passed a law with language that made it impossible for the agency to do so. Congress also did not simply amend the law to include voting systems, even when it was very apparent to people in government and people in the first-generation of election integrity advocates that NIST had a vital role to play in making the free-wheeling vendors technically accountable to someone who actually knew something about computers and computer security.

One of the points made in Saltman's 1975 report was that we needed standards and we needed a clearinghouse of information to serve election officials. Fine. I agree. But the report clearly said that the responsibility for counting the votes belongs to the election officials and not the vendors. You may recall Saltman's quote saying that "Prudence should dictate that the vendor should limit his involvement to the supply of fully operational equipment."

But by the time this sage advice was published, the imprudent horse was out of the barn and no one wanted to bring him back. The voting equipment manufacturers and election community had already enjoyed 10 full years of unbridled activities where accountability and transparency never took root and there was no sign of serious, organized interference from the grassroots. Citizens

were asleep at the switch. And in this decade of "irrational exuberance," there was never a genuine and widespread public debate about the implications of what was happening in the name of modernizing elections.

So there we were 35 years ago with a bright red flag telling us that the vendor should not be involved with the vote tallying. Unfortunately, we've gone full speed ahead in exactly the opposite direction and privatized not only the vote counting, but oftentimes a vendor representative is at the computer on election night, and can have 24X7 access to the computer room prior to an election.

Now there are some checks and balances in place to counterbalance the enormous power that all of this proprietary software has over an election. One of them is the escrow system. How does it work? Jurisdictions are required to put some of this software, typically not all of it, in escrow with an escrow agent that has been certified by the state. Some states, like California, also require that the secretary of state's office have a copy of the software. The theory is that if there's an election dispute or contest, there's always a copy of the vote-counting software with a third party. Here's the catch. While it would be certainly be helpful for someone to inspect the software in escrow in case of a dispute about the correctness and honesty of election results, this isn't the only software we should be concerned about. The software we should be most concerned about and start to focus on for once, and the software that's absolutely essential to inspect in order to have a reasonable assurance of the correctness and honesty of election results, is the software that is running on the election computer on election night.

The software we should be most concerned about and start to focus on for once is the software that is running on the election computer on election night, not software that the vendor has placed in escrow.

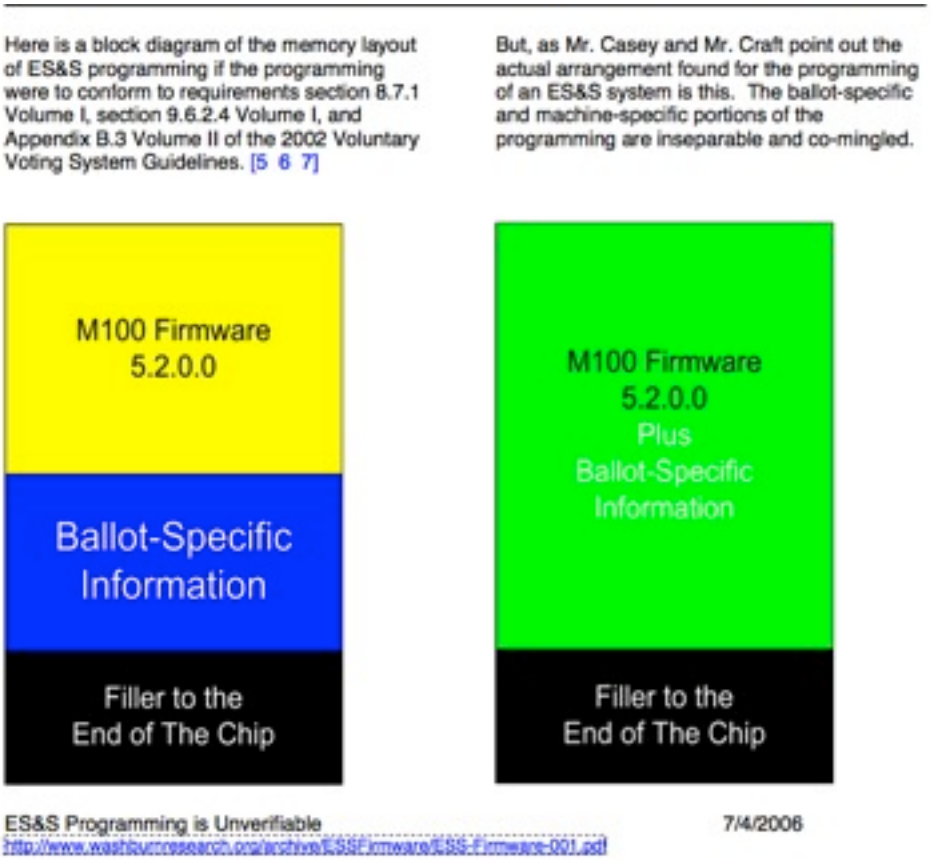
COOK Report: This makes excellent sense to me.

Waskell: It makes sense to me, too. Unless election night software is inspected, it really doesn't matter what's in escrow. Besides, the escrow agreement is between the vendor and the escrow agent. Many state officials just see a piece of paper saying that vendor A has software XYZ in escrow. No one from the secretary of state's office independently verifies what software in actually in escrow. Doesn't that sound like an honor system?

And there's another catch. How do we know that the software in escrow is identical to the software that runs on the election computer on election night? And there's another version of this question, How do we know that the software that is certified is the software that is running on the election computer on election night? Key question. A very key question. The answer involves identifying the proper methodology to use for software verification, i.e. how do you compare two pieces of software to prove they're identical? Unfortunately, the answer is a bit murky to election officials because the vendors tell the LEOs one thing, and the mainstream computer scientists and security experts have a somewhat different answer regarding the proper methodology. I'll go with believing what the scientists say. And while I don't want to get into the nitty gritty details of software verifi-

cation, a trusted build, hash functions, digital signatures and so on, my understanding is that jurisdictions are pretty much left to their own devices in this area and use a wide variety of methods for software verification. Perhaps we need to require the use of best practices in this area.

I cannot leave this topic of software verification without mentioning an analysis of the problem by John Washburn, a techie from Wisconsin with a keen interest in elections. I've followed his blog for a while and a few years ago I saw a short paper by him entitled "ES&S Programming Is Unverifiable"



<http://www.washburnresearch.org/archive/ESSFirmware/ESS-Firmware-001.pdf>. The paper is fairly technical but very well written and it has great diagrams. Two pictures of firmware are worth a thousand words! Washburn makes a very strong case that this particular software on the election computer is unverifiable because *that software (or computer code) is a merger of the vote-counting software and the ballot specific information for that election.* It's a must-read because if this software is really unverifiable it means that there's no way to know that the software on the election computer is the same software that was certified. If anyone reads Washburn's paper and can disprove it, I'd like to hear from them. You can see how complicated this quickly becomes.

COOK Report: On February 8, 2010 I asked Craig Partridge, <http://www.ir.bbn.com/~craig/> if he would read Washburn's article. On the same day Craig replied: "OK, read the article. He's not talking about formal verification. He's talking about simply confirming the software that is running

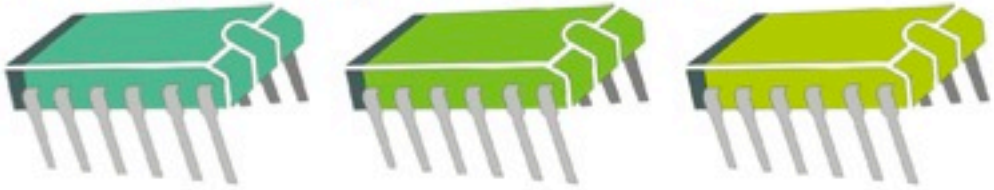
Instead of getting chips like this with certified firmware and different, but correct ballot-definition information:



Or instead of getting this set of chips with uncertified, but **detectable** firmware on one chip:



The auditor gets chips in many shades of green such as this:



The auditor, tester, or clerk has no way to know if the variation in shades of green are from error-free differences in the ballot definitions, errors in the ballot definitions, errors in the machine-specific firmware, or some combination of the three. The result is always the same: different shades of green. **No information** on either the ballot definitions or machine-specific firmware is available.

The programming is thus unverifiable. A County Auditor in Iowa or municipal clerk in Wisconsin cannot verify which version of software was delivered to them. Thus a County Auditor in Iowa or municipal clerk in Wisconsin has no way of confirming or denying that the software delivered to them is actually state-certified or not.

in the election machine matches the software that the Secretary of State approved. Assuming his statement is correct, that the code is not separated from the ballot material, he's right."

Waskell: Oh, oh. Washburn and Partridge have just said that LEOs in Iowa and Wisconsin have no way to verify that the software that is installed *on the local election computer,* not the software on any memory cards or cartridges, is the same software that's been certified. That's really a problem!! And if it's true in Iowa and Wisconsin for one vendor, it's likely true for jurisdictions and other vendors all over the country. Looks like state election officials have their work cut out of them, doesn't it? Their situation is going to be extremely complicated.

COOK Report: Yes, it is. But I want to know how this vast web of control through the proprietary software you mentioned is made possible?

Waskell: The contract the county signs when it purchases voting equipment gives all of this control to the private sector, and makes it perfectly legal. In other words, the contracts concentrates control in the hands of the vendor. Much of this is spelled out nicely in Joseph Lorenzo Hall's PhD thesis of the fall 2008 entitled *Policy Mechanisms for Increasing Transparency in Electronic Voting.* Hall got his PhD at UC Berkeley in Information Management and Systems and is now a post-doc at Princeton. Chapter 3 of his thesis is entitled *Contractual Barriers to Transparency in Electronic Voting* and contains examples from actual contracts showing how a vendor can legally exert control over an election and the election official.

The contract not only stipulates that the election official cannot have anyone inspect the vote-counting software. It goes much further. The vendor is the only one allowed to repair the system. Vendors have to train the election officials and the people in the field on election day who trouble-shoot when the voting equipment malfunctions. Election officials and the vendor have to mutually agree upon any public communications, and this involves how the system works or why it malfunctioned on any given occasion.

COOK Report: Let's go back to the Saltman report. What else did you notice?

I have never heard anyone in the election community mention the report's most critical recommendation in my view, i.e. the one regarding the role of the vendor in vote-tallying. Isn't control over the vote counting the bottom line of elections?

Waskell: I noticed that when election officials testified before Congress or spoke to one of their professional organizations, the one single thing always quoted from this 131-page report is the recommendation—among many, many others—that a clearinghouse of information be established to assist election officials with things like pollworker training and election management. I have never heard anyone in the election community mention the report's most critical recommendation in my view, i.e. the one regarding the role of the vendor in vote-tallying. Isn't control over the vote counting the bottom line of elections?

COOK Report: Has anyone written the entire history of how all of this happened?

Waskell: No, certainly not from the perspective of a curious citizen trying to understand how elections really work as practiced, not how they work in theory or how elections work according to high school and college civic books. Saltman's 2006 book *The History of Politics and of Voting Technology: In Quest of Integrity and Public Confidence*, covers a lot of this territory and Ronnie Dugger's *New Yorker* article is an excellent overview in many ways. It's been called the definitive article on this topic. But there are a lot of juicy details and personal stories that haven't yet seen the light of day or been woven into the public narrative. And most importantly, no one has retraced the path of flawed decision-making, misguided policies and missed opportunities that brought us inevitably to the November 2000 disaster. It's critical to know how we got to where we are today, because I already see too many signs indicating that we're going to continue our "march of folly" well into the 21st century.

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Now so far, I've read histories of US elections that have been written by mainstream historians, political scientists and technologists. And the world of citizen watchdogs has its own perspective of this history, including Bev Harris' 2003 book *Black Box Voting: Ballot-tampering in the 21st Century.* But just about all of these accounts contain a big gap in detailing what happened between about 1980 and 2000 from the perspective of the grassroots, i.e. the view from the trenches where a handful of citizens were first coming face-to-face with the complete lack of transparency and accountability at the county level, and secondarily at the state level. The people's story hasn't been fully told in my opinion. Some of their stories are still in my head. And at some point they need to be written down so a complete history from a citizen's viewpoint is available and a matter of public record.

Most people today think that election problems and flawed voting equipment first really became problematic in November 2000 when the media focused on a limited number of issues during the Florida fiasco. They focused on the most visible problems, including the paper, which gave the distinct impression that the punch card, the paper, was the key problem. What was totally lost in the public conversation and debate that followed was the deeper and harder to see dysfunctionalities of election administration. And these systemic problems will remain invisible if you don't look closely and honestly and dig deep to find them.

What was totally lost in the public conversation were the systemic problems, i.e. the deeper and harder to see dysfunctionalities of election administration.

As a brief aside, I remember attending the February 2001 meeting of the National Association of State Election Directors (NASED) where Clayton Roberts of Florida got a healthy round of applause. There was also a look of relief on the faces of every state election director in that room. There for the grace of God go I, was on every election official's mind. A few of them actually said it out loud and heads nodded in agreement. These people knew in their hearts that *their* state could not have withstood the kind of scrutiny that Florida received.

10. Elections in the Great State of Texas

Personal experience with the power of a simple audit process

COOK Report: You mentioned that in September 1986, David Burnham did a piece on an investigation surrounding a Dallas election. Did that involve you?

Waskell: Yes, I became a consultant to the Texas Attorney General's office that was investigating alleged election irregularities in the May 1985 Dallas mayor's race. But I only became involved as a consultant after I had met and talked with the person who had brought the original complaint to the Attorney General's office.

COOK Report: How did that come about?

Waskell: I got the tip about the ongoing investigation by pure happenstance. Burnham didn't share that much information with me. All he said was that he was working with a woman in Texas. I learned about Terry Elkins as a matter of serendipity. Here's what happened.

When I came back from London in early 1985, I was looking for a way to increase my income from writing and I thought that public speaking about computers and artificial intelligence would be useful. So I immediately joined the National Capital Speakers Association, the local chapter of the National Speakers Association. During one of the informal meetings much later in the year, we were all sitting around in a circle introducing ourselves and our area of interest. I said that I had recently become interested in elections and I wanted to do public speaking about problems I had discovered. Right after the meeting, Joseph Goldblatt came up to me and said that his father Max, a hardware store owner and political progressive, had run for mayor in Dallas, challenging incumbent Mayor Stark Taylor, and lost. Max missed a runoff by a narrow margin. He and his campaign manager had questions about the election and believed that the vote count had been manipulated. Joe gave me the phone number of his father and his father gave me the phone number of his campaign manager, a feisty woman named Terry Elkins.

Something very similar to the Palm Beach butterfly ballot incident occurred in that Dallas election. On election day, Goldblatt's campaign office started getting calls in the morning from voters regarding a confusing ballot layout. Voters weren't sure they voted for Max. Was he punch hole three or four? It was hard to tell when you looked at the confusing ballot pages of the Votomatic. Sound familiar? Voters also said the stylus wouldn't go all the way through when they tried to punch out their vote for Max Goldblatt.

After the election and the recount, a recount that unexpectedly occurred *very shortly* after the election, Elkins did a very smart thing. She and a friend and co-worker of hers named Pat Cotton took a portable copy machine to the warehouse where the precinct records were stored and they copied everything they could get their hands on. Dallas County used the Computer Election Systems, Inc. (CES) Precinct Ballot Counters (PBCs) at the time—a little machine you ran your voted punch card ballot through and it would print a tape at the end of the day with the precinct's vote

totals. Elkins had a copy of these tapes, the ballot reconciliation sheets, the sign-in sheets, the audit log from the central election computer and numerous other election-related records. But the PBC tapes were crucial. Over the course of her yearlong research, she had to wade through thousands and thousands of pages of documents and interviewed dozens of people.

Elkins tried to balance the unofficial and the official election books and she couldn't. For example, she found several different numbers for the official ballots cast in the election.

Once armed with the necessary paper-based election records, Elkins did another smart...and simple thing. She took an accounting pad and made a list all of the 250 precincts in the county. She added up all the vote totals in the mayor's race derived from the PBC tapes. She had the audit log from election night. She figured if she added the vote totals of the precincts from the PBC tapes in the order they appeared on the audit log, and compared these totals with the output of the unofficial election night results for the mayor's race, the numbers should match. They didn't.

Elkins also tried to separately balance the unofficial and the official election books and she couldn't. For example, she found several different numbers for the official ballots cast in the election. She often said that if the vendor's software couldn't even count the correct number of ballots cast, how could we ever trust that the software was counting the correct number of votes? There was an official answer for the discrepancy among the official number of ballots cast in the election, but that answer was never independently verified by looking at the source documents and the voted ballots! In total, Elkins found about 30 different discrepancies, and many of them were never fully and satisfactorily explained. This particular experience will sound very familiar to today's activists who have been doing their own in-depth and time-consuming investigation of election discrepancies. Yes, *some* of any reported discrepancies *are in fact* due to human error but *not necessarily all of them*. And that's an important distinction to make.

Oh, before I forget. Many of the discrepancies Elkins found were only uncovered because she had those PBC tapes from all of the precincts with the precinct totals. Lesson learned: precinct totals are vital to any kind of meaningful post-election audit. One of the first election reforms that Dallas County soon implemented was to get rid of the PBCs—some of them were reportedly borrowed from Chicago—and go to a centralized counting system for the punch cards instead.

Many of the discrepancies Elkins found were only uncovered because she had those PBC tapes from all of the precincts. Lesson learned: precinct totals are vital to any kind of meaningful post-election audit. One of the first election reforms that Dallas County soon implemented was to get rid of the PBCs.

The bottom line of Elkins' work was that the numbers did not add up, and the format of the election results made it difficult to confirm that all of the *individual* precinct vote totals for candidate A found in various sections of the statement of the votes (a printout that can be several inches thick) added up to the exact *total* number of votes for candidate A shown in another section of the statement of the votes. And she was the first person to genuinely audit an election in a simple, straightforward and relatively comprehensive way in order to verify the accuracy of the election results. She did it in a manner that any high school student could understand using basic arithmetic. She showed her work, like you had to do in school for a math exam. It was totally transparent. It was simple. It's a method that enabled an ordinary citizen to play a meaningful role in ensuring election integrity...without the need to be a computer expert or have a PhD in statistics.

COOK Report: Was this a kind of forensic approach?

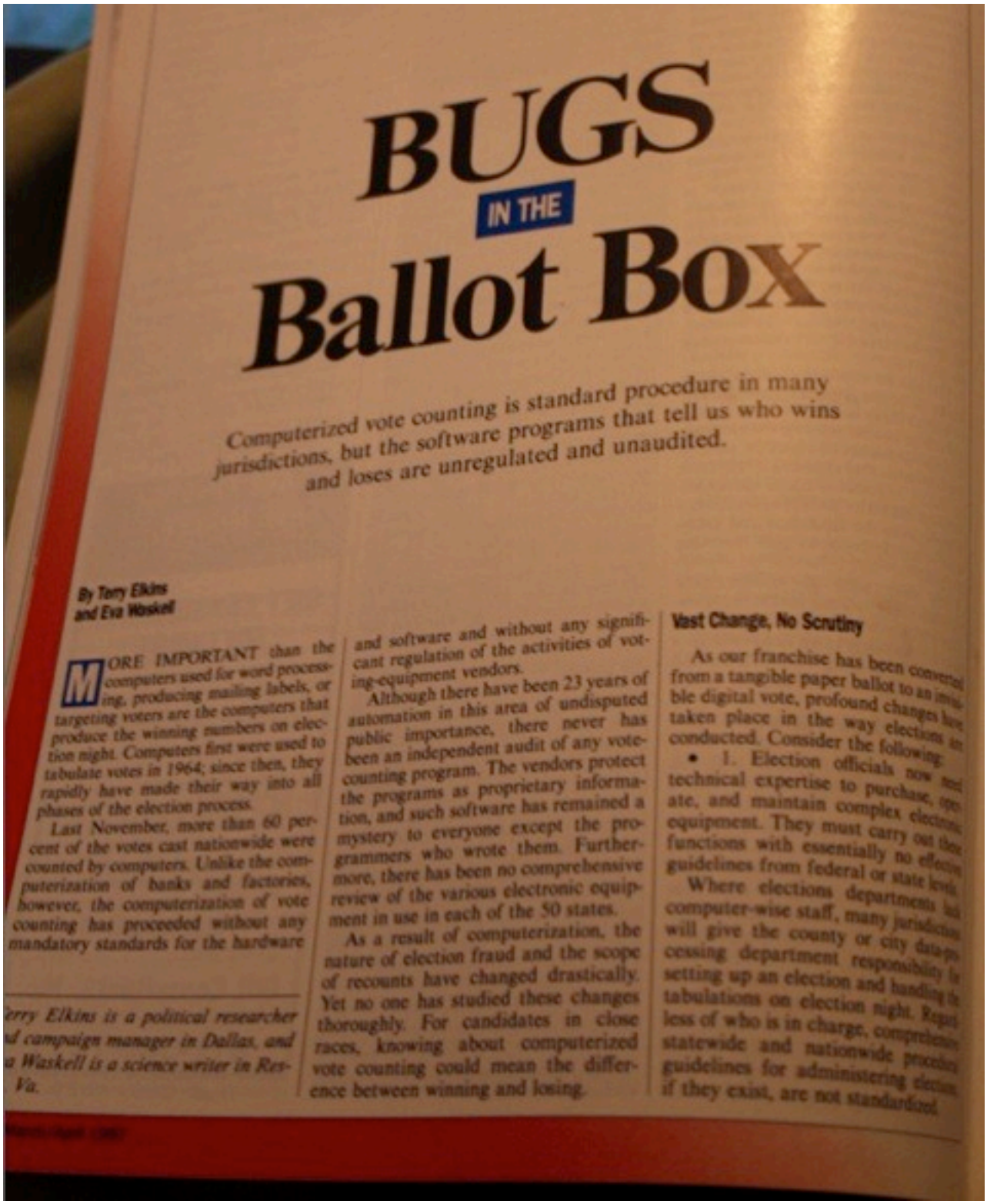
Waskell: No, not at all. Elkins did not do a forensic investigation or examination. Election forensics was defined in an August 2009 paper entitled *E-Voting and Forensics: Prying Open the Black Box* www.usenix.org/event/evtwote09/tech/slides/bishop.pdf by Matt Bishop et al as "the process of analyzing and discovering the causes and cures of technical problems that might have an impact on the validity of the results." Such a computer forensics exam would have involved having a computer forensics expert look at the hardware on the election computers and the PBCs in a very sophisticated and expensive way, for example. (Oddly enough, the word forensics is something I've only seen applied to US elections within the last several years.)

Elkins simply tried to verify the election results by determining if the numbers on official documents and all election records were internally consistent, and she looked at the larger context of the election in terms of chain of custody and so on. This is the direction in which I think we need to go in terms of auditing election results. It was a simple double-checking of the numbers to see if the mathematics was correct. Bookkeeping 101. It's not sexy; it's very tedious work. But it's essential to do if we're going to have trustworthy elections. Today there are Excel spreadsheets that can be used rather than a paper-based accounting pad.

Elkins did a simple double-checking of the numbers to see if the mathematics was correct. Bookkeeping 101. It's not sexy; it's very tedious work. But it's essential to do if we're going to have trustworthy elections.

Elkins also documented that the election taken as a whole was inauditable due to sloppy record-keeping, missing records, broken chain of custody and general confusion in key areas. For example, Elkins found it difficult to even locate some of the precincts on election day because the addresses for the precincts appearing in the newspaper on election day did not match the addresses on the official list in the election office...a list which appeared to keep changing right up to election day itself.

COOK Report: You almost need a flowchart to understand this.



BUGS IN THE Ballot Box

Computerized vote counting is standard procedure in many jurisdictions, but the software programs that tell us who wins and loses are unregulated and unaudited.

By Terry Elkins and Eva Waskell

MORE IMPORTANT than the computers used for word processing, producing mailing labels, or targeting voters are the computers that produce the winning numbers on election night. Computers first were used to tabulate votes in 1964; since then, they rapidly have made their way into all phases of the election process.

Last November, more than 60 percent of the votes cast nationwide were counted by computers. Unlike the computerization of banks and factories, however, the computerization of vote counting has proceeded without any mandatory standards for the hardware and software and without any significant regulation of the activities of voting-equipment vendors.

Although there have been 23 years of automation in this area of undisputed public importance, there never has been an independent audit of any vote-counting program. The vendors protect the programs as proprietary information, and such software has remained a mystery to everyone except the programmers who wrote them. Furthermore, there has been no comprehensive review of the various electronic equipment in use in each of the 50 states.

As a result of computerization, the nature of election fraud and the scope of recounts have changed drastically. Yet no one has studied these changes thoroughly. For candidates in close races, knowing about computerized vote counting could mean the difference between winning and losing.

erry Elkins is a political researcher d campaign manager in Dallas, and a Waskell is a science writer in Res-Va.

Vast Change, No Scrutiny

As our franchise has been converted from a tangible paper ballot to an invisible digital vote, profound changes have taken place in the way elections are conducted. Consider the following:

- 1. Election officials now need technical expertise to purchase, operate, and maintain complex electronic equipment. They must carry out these functions with essentially no effective guidelines from federal or state levels.

Where elections departments lack computer-wise staff, many jurisdictions will give the county or city data-processing department responsibility for setting up an election and handling its tabulations on election night. Regardless of who is in charge, comprehensive statewide and nationwide procedures guidelines for administering elections, if they exist, are not standardized.

The March/April 1987 issue of *Campaigns & Elections* contained an article by Terry Elkins and Eva Waskell.

The bottom line for me was that working with Elkins got me to think about election administration and election procedures, the people and the policies, not just the election technology.

Waskell: Visual aides would certainly help. That's one of the things I plan to do. The massive complexities of election administration just cry out for visual explanations. If done right, the visuals could really have an impact on raising awareness of the issues we face. I have some preliminary sketches and a lot of ideas for how to do this but I'm not a graphic artist. At some point I'd like to work with someone in that field. I've been inspired by Edward Tuft's work ever since I checked out a few of his books from the local library.

COOK Report: What were some of the lessons learned in Texas? And give us some background.

Elkins thought she was doing a good thing. When she went to the warehouse to copy election documents, she was no longer wearing the hat of a campaign manager; she was wearing a citizen's hat. ... The problem was that Elkins hoped to ultimately build some kind of career based on her original work, and that never happened. ... In 1992, I called her mother in Amarillo, Texas who told me that Terry had "disappeared."

Waskell: Texas taught me that the technology was only part of the story. It helped change my emphasis from the flawed and vulnerable voting systems to the people involved and the election process itself, i.e. the procedures and policies that were in place. I quickly realized how complicated a management problem an election was and that sloppy recordkeeping was pretty routine. And it didn't help that elections were generally run on a shoestring budget and pollworker training was almost always in need of great improvement.

During the course of the investigation, I worked with Elkins to compile a list of documents that the Attorney General's office needed to request from the LEO. We unconsciously knew we'd never be able to see the voted ballots—that would have opened a political hornet's nest—so we just didn't ask for them. Big mistake, as I now know.

Elkins and I were also asked to make a list of changes we'd like to see in state law. At the top of our list was the need to have all voting systems recertified, i.e. to put them through a rigorous testing process. Both California (the Top To Bottom Review) and Ohio (The EVEREST report) did this type of review in 2007 and issued reports that were hundreds of pages long with detailed analyses. Better late than never. However, to the best of my knowledge, Texas has not yet done any review of their voting systems that can even *begin* to be compared to what California and Ohio did. Why not? The legislators in Austin failed to allocate funds for such a project. The power of the purse is awesome, isn't it?

The investigation also taught me the supreme importance of two words—plausible deniability. I call it The PD Factor. Here's an example of how it manifested at the state and local level. Let's start with the local level. Elkins said that no one from the county district attorney's office ever communicated with her or ever asked to see any of her extensive collection of precinct records and other

election-related research. Thus, the local district attorney's office received a 39-page secret report (It was secret because it was a criminal investigation.) about the discrepancies Elkins identified in her complaint, and the local office never spoke to Elkins for her side of the story. The local district attorney's office presumably spoke with local election officials and staff, and with at least one vendor representative that I know of for certain. And whatever else the office did in the form of an investigation, their conclusion was clearly spelled out in Dugger's November 1988 *Texas Observer* article. "Each of the 'discrepancies' have been explained to our satisfaction, and although we verified that a few coding errors were in fact made, we have concluded that they were the result of unintentional 'human error.' We find no evidence whatsoever to indicate any deliberate fraud in the 1985 election, nor do we find any credible evidence to indicate an attempt to manipulate the election or its outcome." And to the best of my knowledge, no one at the local level *ever* looked at the most credible evidence available, i.e. the voted ballots in the precincts where there were discrepancies.

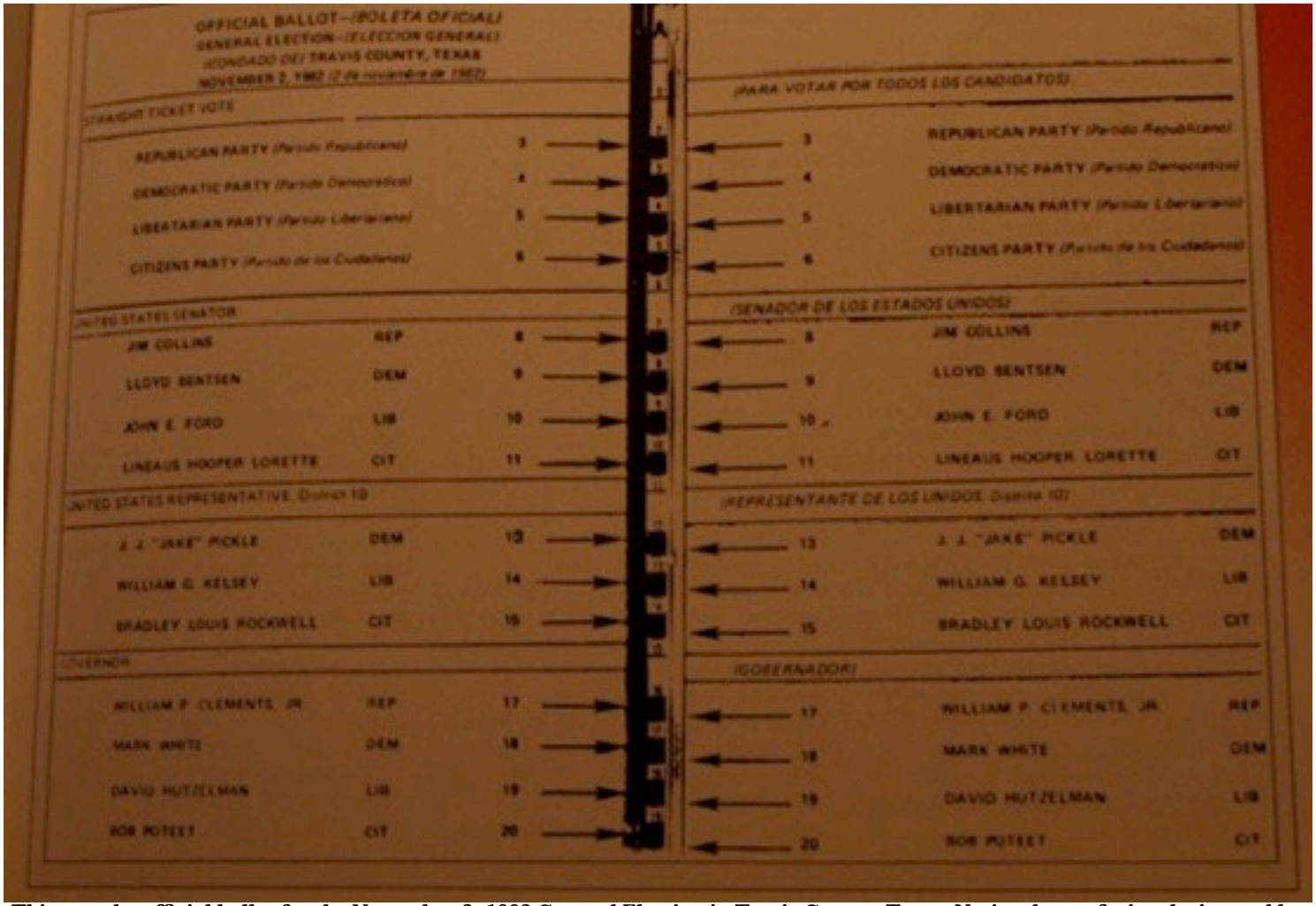
Now let's see what happened with The PD Factor at the state level. In my mind, one of the key lessons from that Dallas election investigation was summed up by attorney General Jim Mattox who was quoted in Burnham's September 23, 1986 article and said, "We have continued this investigation because of the initial finding that neither the State of Texas nor the County of Dallas have sufficient objective means to determine whether the elections in question were conducted in a proper and upright manner or whether there was fraud."

The "sufficient objective means" to clearly distinguish between innocent error and deliberate fraud still elude us today.

The "sufficient objective means" were apparently found by the Dallas district attorney's office because they found "no evidence whatsoever" indicating deliberate fraud. Too bad they didn't put that knowledge into the public domain so others could benefit from it. But based on my 25 years of observing attorneys in the labyrinth of election lawsuits and the quick sand of investigations done by local district attorneys, I'd have to say that to clearly distinguish between innocent error and deliberate fraud is a skill that still eludes us today. In his February 18, 2005 notes entitled *Keeping Electronic Voting Hones*t for a panel at the American Association for the Advancement of Science Annual Meeting (a very brief must-must-read that can be found at <http://www.cs.uiowa.edu/~jones/voting/aaas2005.shtml>, Dr. Douglas W. Jones, who served 10 years on the Iowa Board of Examiners for Voting Machines and Electronic Voting Systems wrote, "A crook who has rigged an election can easily masquerade as a routine bungler responding normally. This follows from the frequency of routine error and the normal reluctance of election officials to expose such errors to public scrutiny."

COOK Report: Let's get back to Terry Elkins. I gather the outcome was not a happy one.

Waskell: No, it wasn't. Elkins thought she was doing a good thing. When she went to the warehouse with Pat Cotton and a portable copier she was no longer wearing the hat of a campaign manager; she was wearing a citizen's hat. We both thought we were wearing a citizen's hat and doing a public a service. The problem was that Elkins hoped to eventually build some kind of career based on her original work and that never happened. After Burnham's September 1986 article


OFFICIAL BALLOT—(BOLETA OFICIAL)
GENERAL ELECTION—(ELECCION GENERAL)
(CONDADO DE) TRAVIS COUNTY, TEXAS
NOVEMBER 3, 1992 (3 de noviembre de 1992)

(PARA VOTAR POR TODOS LOS CANDIDATOS)

STRAIGHT TICKET VOTE

REPUBLICAN PARTY (Partido Republicano)	3	3	REPUBLICAN PARTY (Partido Republicano)
DEMOCRATIC PARTY (Partido Democrático)	4	4	DEMOCRATIC PARTY (Partido Democrático)
LIBERTARIAN PARTY (Partido Libertariano)	5	5	LIBERTARIAN PARTY (Partido Libertariano)
CITIZENS PARTY (Partido de los Ciudadanos)	6	6	CITIZENS PARTY (Partido de los Ciudadanos)

UNITED STATES SENATOR (SENADOR DE LOS ESTADOS UNIDOS)

JIM COLLINS	REP	8	8	JIM COLLINS	REP
LLOYD BENTSEN	DEM	9	9	LLOYD BENTSEN	DEM
JOHN E. FORD	LIB	10	10	JOHN E. FORD	LIB
LINEAUS HOOPER LORETTE	CIT	11	11	LINEAUS HOOPER LORETTE	CIT

UNITED STATES REPRESENTATIVE, District 10 (REPRESENTANTE DE LOS UNIDOS, Distrito 10)

J. J. "JAKE" PICKLE	DEM	13	13	J. J. "JAKE" PICKLE	DEM
WILLIAM G. KELSEY	LIB	14	14	WILLIAM G. KELSEY	LIB
BRADLEY LOUIS ROCKWELL	CIT	15	15	BRADLEY LOUIS ROCKWELL	CIT

GOVERNOR (GOBERNADOR)

WILLIAM P. CLEMENTS, JR.	REP	17	17	WILLIAM P. CLEMENTS, JR.	REP
MARK WHITE	DEM	18	18	MARK WHITE	DEM
DAVID HUTZELMAN	LIB	19	19	DAVID HUTZELMAN	LIB
BOB POTEET	CIT	20	20	BOB POTEET	CIT

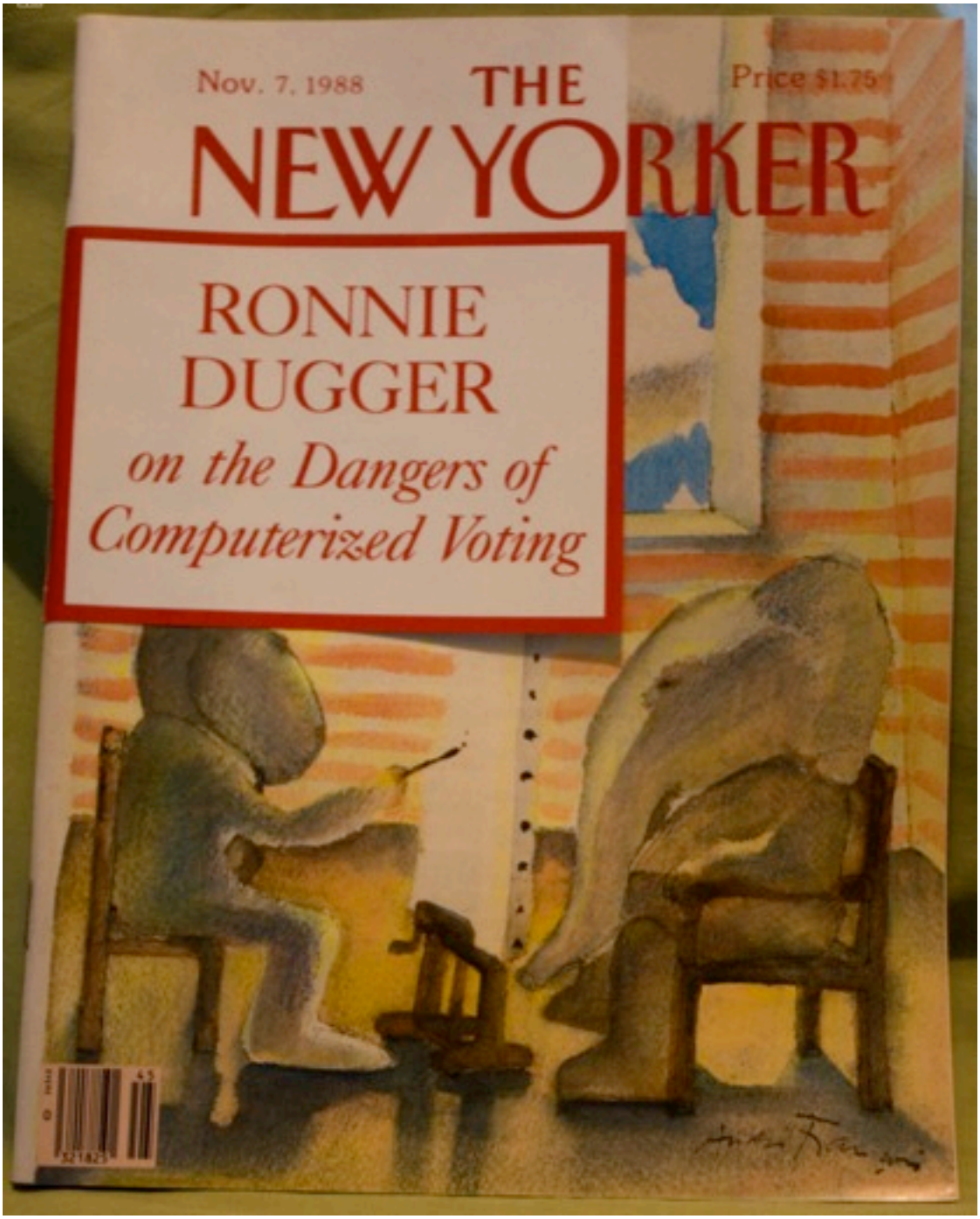
This was the official ballot for the November 2, 1992 General Election in Travis County, Texas. Notice the confusing design and how the choices on the sides of the ballot pages do not line up uniformly with the middle of the hole to be punched out.

about the Texas attorney general's investigation of the Dallas city election was published, Mae Churchill of Election Watch tried for a while to help get funding for Elkins to continue her election research. Nothing materialized. In the meantime, Elkins' personal life began falling apart. An acrimonious divorce was only a small part of the emotional turmoil she had to endure. But it was her election work that basically destroyed her. The audit she did and the questions she was asking made people *very* uncomfortable. She eventually had a nervous breakdown as a result of all the various pressures. In 1992 I tried to establish contact with her again and called her mother in Amarillo, Texas who told me that Terry had "disappeared." I can say unequivocally that Terry Elkins did invaluable work by being the first person to attempt a meaningful audit of election procedures and election results. She was a true pioneer...and she took plenty of arrows in the back.

COOK Report: What happened after Burnham wrote about the Dallas investigation in September 1986?

Waskell: That article was the last one in the series. But Elkins and I knew for certain that there was much more to be told. Between us we had quite a story! I had thought for sure that after Burnham's last article, some journalist somewhere would pick up on all of the questions raised by his work. I was thinking of a Pulitzer Prize for someone who wanted to dig deeper into the issues. You know, someone who would do real investigative reporting on these private companies and who their owners were. Do some digging into their employees' background. I was envisioning massive and targeted public records requests for communications between the vendors and election offi-

cials, for example. A genuine and comprehensive cost-analysis for what these voting systems really cost the taxpayers. A review of the contracts signed by the election officials. An examination of the public record for crying out loud! Just a standard 101 investigation into the technology and the people who were running the show from behind closed doors. It's what journalists are supposed to do.



But no one knocked on our door. The situation we faced was that I was an unknown science writer with no name recognition so it would have been practically useless for me to try to interest a national magazine editor in the story. And Elkins didn't know any editors or anyone in the publishing

world. But Mae Churchill knew Ronnie Dugger's wife Joan, and Mae was the one who suggested that we bring in Dugger to write a story about elections. I was all for it and so was Terry!

I had thought for sure that after Burnham's last article in September 1986, some journalist somewhere would pick up on all of the questions raised by his work. You know, someone who would do real investigative reporting on these private companies and who their owners were. Do some digging into their employees' background. I was envisioning massive and targeted public records requests for communications between the vendors and election officials, for example.

In the late summer or fall of 1987 I think it was, Dugger came down to Elkins' home in Dallas to talk with the two of us. We sat in the living room and around the kitchen table for hours and talked well into the evening. Elkins told him all about the Dallas city election from the perspective of her research; she discussed what she had done in detail and gave Dugger copies of a bunch of her documents. She also talked about David Stutsman and the findings of his computer expert Deloris Davisson. I did a core dump of my knowledge about the lawsuits in Indiana, Maryland and West Virginia and gave Dugger all of my contact information so he could go and talk to these people for himself as I had done. I explained the big picture as I saw it, identified the key players, sketched out the environment in which the voting system industry operated, and gave him the background on what was happening regarding the FEC, the development of standards for voting systems, and the testing and certification process. All of this was covered in detail in his *New Yorker* article. The one group of people that Dugger wrote about that I never talked to myself were the office holders at the private companies that manufactured the voting systems. Just about the only vendor representatives I had spoken to up to that point were the media relations folks and the sales force. Much of what they had to say was pure hype. Dugger was able to get the industry big wigs on the record. Kudos to him!

COOK Report: So your research was the original source material that served as a starting point for both Burnham's July 1985 *New York Times* article and Dugger's November 1988 *New Yorker* article.

Waskell: Yes. But all of the election-related work I did after that meeting in Dallas at Elkins' home was always totally independent of Dugger's journalism efforts. I was Terry Elkins' assistant for two years but I was never ever Dugger's assistant in any way, shape or form, nor did I ever claim to be. And he told me practically nothing about whatever it was he had learned in the course of his election work.

Mae Churchill made an excellent choice in introducing Dugger to elections by way of the research Elkins and I had done for the past two years. Churchill may have also introduced him to other peo-

ple I'm unaware of. I wasn't in that loop at all. I know that Burnham made a contribution to Dugger's election materials because in the acknowledgements to a November 11, 1988 article entitled *Democracy in the Computer Age: Computerized Vote-Counting Raises Troubling Questions in Texas and Across the Nation* that Dugger wrote for *The Texas Observer,* he says that "reporter David Burnham...in an unusual act of professional generosity, gave me his foot-thick files on computerized vote counting."

COOK Report: Those foot-thick files must have contained copies of the files that you brought to Burnham.

The November 7, 1988* New Yorker *article remains a landmark in describing the problems with computerized voting and trade secret software. Every single one of the issues raised in that article is still being debated, or ignored, today.

Waskell: I assume so. But Dugger did receive a huge amount of information from Elkins and myself. Then he did his own interviews and further research, of course, and tied it all together in a coherent fashion. He wrote that terrific 21,000-word *New Yorker* article and the lengthy piece for *The Texas Observer* I just mentioned that focused on the Dallas election, Texas politics, the voting system industry and ownership of the private companies, and many of the issues raised in *The New Yorker* article. The *Texas Observer* article isn't available online as far as I know. In short, the November 7, 1988 *New Yorker* article remains a landmark in describing the problems with computerized voting and trade secret software. Every single one of the issues raised in that article is still being debated, or ignored, today and is an issue I continue to follow.



In a December 2000 photo, officials examine ballots in Tallahassee. Getty Images - captured from a website at the time.

11. Policy Lesson: Don't Confuse the Simple with the"High Fallutin"

Elkins' simple methodology versus sophisticated statistics

COOK Report: The simple and transparent method that Elkins used would be a lot more straightforward, right?

Waskell: Absolutely. And anyone could do it. What she did was a detailed comparison of precinct records and output from the vendor's proprietary software and an independent verification of the basic math on official documents. But as I said, this is very time-consuming and tedious work. Now I do need to point out that some of this balancing of the election books, like comparing the number of voter signatures in a precinct to the number of ballots cast in that precinct, is in fact a routine part of the post-election canvass process. However, this and many other similar bookkeeping activities take place behind closed doors, with no oversight, and no election official creates the kind of detailed document that Elkins had with her accounting pad showing precinct by precinct where the numbers didn't balance properly. After the November 2004 election, historian Dr. Richard Hayes Phillips of Ohio did something a little like what Elkins did in terms of analysis, although he also got photos of the voted ballots!! Very smart man! But the point I want to make is that in both cases, the comprehensive analysis that the citizens did took hundreds and hundreds of hours, and *it was close to a year after the election results were certified before all of the discrepancies and unanswered questions, and altered ballots in the case of Ohio, saw the light of day.*

Election officials never do this type of thorough analysis and double-checking the basic math on the unofficial or official election results; it's not in their job description; it's not required by law; and it's impractical to do it before the results are certified because LEOs are fully occupied with a very large number of other important, essential and/or legally required tasks during this time. So it's not surprising that their attitude toward minor discrepancies and numbers that don't exactly add up is that "it's good enough."

Election officials never do this type of thorough analysis and double-checking the basic math on the unofficial or official election results; it's not required by law; and it's impractical to do it because they're fully occupied with a very large number of other legally required tasks.

And here's where transparency comes in. Vote totals will always change during this post-election period but there are no citizen observers monitoring the process. I don't think anyone closely monitors this process end-to-end. But what if this critical post-election canvass, during which unofficial results become official results, were open to public scrutiny? What if citizens were trained by the

LEO regarding what went on and then citizens got to see for themselves how it was done? I *guarantee* that it's going to be an imperfect process and get messy at times. You'll see pollworker errors on precinct records for one thing. But this part of the vote counting is still a part of the essence of democracy, isn't it? So if it turns out to be a sausage factory, something we may not want to see, we still must see it! Honestly see it, accept it and work together to improve it. This is a formula for creating transparency and mutual trust and respect. Whatcom County, Washington has made its absentee ballot processing transparent with this kind of citizen monitoring, and I think this is a model for the rest of the country. Election officials everywhere constantly remind any well-intentioned election reformers not to use a cookie-cutter approach to solving problems. I totally agree. But you know what? Transparency is one size fits all. And so is accountability.

COOK Report: What do you think election officials would say about your idea of using Whatcom County as a model for absentee ballot processing?

Waskell: Eva Waskell is an idiot! It would be a management nightmare. We barely have enough space to move around in now and she wants more people in here?!? This is my office. Besides, we sometimes have observers from the political parties here. Enough is enough. Let us alone to do our job.

COOK Report: So what you're saying is that it's the inherent nature of our current election system that makes any kind of thorough and meaningful election analysis impossible for election officials to do on a routine basis before certification?

Waskell: Yes. If any type of in-depth and comprehensive analysis is done by well-informed citizens, or any brave academic who wants to venture into this unknown territory of data, by the time the analysis is completed, the victors are enjoying their spoils and any discrepancies or critical and probing questions are always looked at as water under the bridge; forget it and move on.

So this is the context surrounding the trend toward using statistical audits to save time during the post-election period, which I think is a poor trade-off. Give me transparency and you give me trust. Give my quadratic equations and you give me...a headache. (I smiled when I said that.)

Unfortunately, the 2009 version of Rush Holt's Voter Confidence and Increased Accessibility bill (HR 2894) supports this kind of analytical approach to auditing. But thankfully it's been put on hold. While the bill definitely does some good and valuable things, it also protects the number one item on the vendors' wish list, their trade secret software. So the bill legalizes some very bad practices, like privatized and concealed vote counting, that would have an enormous and practically irrevocable impact on the integrity of elections. It's an extremely unwise trade-off. A pound of carrots for a ton of sticks. Holt's first bill also included some good things, like statewide voter databases and allowing voters to cast a provisional ballot. And it was also a huge and welcome stimulus act for the voting system industry. Naturally, it was the taxpayers who got to foot the $4 billion bill.

Rush Holt's Voter Confidence and Increased Accessibility bill (HR 2894) also protects the number one item on the vendors' wish list, their trade secret software.

COOK Report: Holt's first bill was the Help America Vote Act (HAVA) of 2002?

Waskell: Yes. I mean, just look at what happened in retrospect. HAVA had a fixed two-year window in which to purchase this new equipment. (Some extensions were given in a few cases.) So jurisdictions spent hundreds of millions of dollars to replace punch card systems with touchscreen systems. Why didn't they purchase optical scan systems instead? Because the official pronouncements from the LEOs proclaimed that since there was also a requirement in HAVA to have at least one touchscreen voting system in each precinct for the disabled—the implication being that touchscreens were the *only* system that could be used for the disabled—a jurisdiction might as well get touchscreens for *all* of the voters and thus have one uniform voting system. This false interpretation was endlessly repeated by the media and served as the primary justification for the stampede to touchscreens. Why was it false? Because if you actually take the time to *read* the text of the bill, you'll see that *HAVA required* **either** *a touchscreen voting machine or a mechanical ballot-marking device in every precinct for the disabled.* There are several models of these mechanical devices available. So jurisdictions could have gone from punch card systems to paper-based optical scan systems and had one mechanical ballot-marking device in every precinct for the disabled. Of course, any cost-conscious LEO is going to find it extremely easy to nix the purchase of a mechanical ballot-marking device for any number of plausible, or non-plausible, reasons. Having done that, and facing the once in a lifetime prospect of receiving *money* from the federal government for elections, the inevitable course of action was to purchase the latest and greatest election technology—which would be touchscreens.

Hundreds of millions of dollars were spent to purchase paperless touchscreen voting systems, many of which have since been discarded. Jurisdictions then purchased replacement paper-based optical scan voting systems.

However, once the touchscreen systems were purchased and used in elections, it became apparent that they could not be genuinely audited because there was no paper ballot to manually recount. So the touchscreen systems were discarded and...guess what? Jurisdictions then purchased paper-based optical scan voting systems and only used the touchscreen systems for the disabled. What a deal for the vendors! They love HAVA. I'll bet they talk among themselves in private and refer to it as the Help All Vendors Act. In public, one major vendor referred to this extremely busy period of time when sales figures were going through the roof as "a seller's hell." You also have to remember that money for the very lucrative maintenance and service contracts aren't included in HAVA. Just the equipment is. Thus, taxpayers get to foot the bill again, the taxpayers at the county level. So while the vendors are quietly counting their windfall profits, citizens, unfortunately, have some important things to hate about HAVA. The legislation never touched upon accountability, transparency, meaningful auditing procedures, or meaningful election monitoring. And there are no, I repeat *no*, real enforcement provisions in HAVA. None. I can't imagine how that happened. I'm sure that the lobbyists for the voting system industry had nothing to do with it.

COOK Report: My head hurts. Let's get back to auditing.

Waskell: Yes, auditing. The term "audit" in the context of elections is such a grossly and relentlessly misused and misunderstood word. What is too often overlooked is that for any kind of meaningful audit, you should first clearly state what your objective or goal is. Let me quote Julie Omohundro from a June 25, 2009 post on Black Box Voting: "Any analysis of an audit plan that does not lead with a CLEAR ARTICULATION of an audit objective is MEANINGLESS in the purest sense of the word. ... Unless the analysis of the audit plan is put into the larger framework of a quality system...it is an exercise in myopia." I couldn't say it better. So when news headlines say that an election audit found no evidence of fraud, for example, you have no idea what audit methodology was used or how rigorous it was, but the impression the reader is left with is that the "audit" somehow "proved" that there was no evidence of fraud.

Let me make another vital point about the type of auditing that politicians and well-meaning and very bright statisticians are supporting. Up to now, we've seen the sporadic application of sophisticated mathematical techniques like a parsimonious binary regression analysis of election results or risk-limiting audits. We can sometimes apply Benford's Law to the final digit and the next to the last digit of vote totals. We can throw in escalating formulae, nonparametric confidence bounds, and a trinomial bound. But we are not routinely doing simple bookkeeping 101 using addition and subtraction. What's wrong with this picture? No one is doing the most boring, the most fundamental, and the most basic processes to balance the books of election results, like double-checking the addition of the precinct totals that produce the final election results on election night. Or independently verifying the accuracy of the interim reports. Simplicity. That's the direction we should be going in...at warp speed. Keep it simple.

Furthermore, statistical tools are meaningful to someone with a PhD in statistics but they're absolutely incomprehensible gibberish to the candidates, the ordinary citizen and any member of the public who would like to see if the arithmetic of the election is correct. In other words, the statistical tools don't pass the transparency test. A very basic double-checking of the numbers is standard bookkeeping 101 and understandable to us regular folks. This mad dash into sophisticated statistics is very foolish because it gives a false sense of security about the election results. But above all, it's a process that is not transparent.

COOK Report: What caused the headlong rush into statistical analysis?

Waskell: I think politicians have glommed onto it because it has a basis in science, although I think in this particular case it's a misplaced use of science. This type of auditing by the experts has arisen in just the last few years as politicians are looking for a quick and easy fix and want to appear as if they're doing something, anything, to restore voter confidence in election results.

If you analyze election results with advanced statistical techniques like a parsimonious binary regression analysis, only the experts will know what that means. If you want the general public to trust election results, you need to use simple addition and subtraction.

In my opinion, if you are genuinely serious about establishing lasting public trust in the election process and election results, you do *not* want a PhD in statistics to be one of the requirements for gaining that trust. You want to require simple addition and subtraction that the general public can easily understand. After all, we hold elections not only for the benefit of the political parties but for all citizens. You know, the rest of us. And now more than ever before, citizens want to have a look under the hood for the very first time in the history of elections. They're like a bunch of wildly curious cats who want answers, straight answers. Now! They want to get involved locally, and they want to learn about exactly what happens in running an election. They're getting smart about what they don't know and they're not going to go away.

We also need to establish a standardized and open format for reporting election results. The current formatting of election results makes it extremely difficult to audit them in a meaningful manner. A growing number of academics, including Joseph Lorenzo Hall and UC Berkeley statistician Peter Stark, have complained about this. There's currently an attempt underway in California to deal with the format problem. Terry Elkins had identified this problem back in 1985.

After all, we hold elections not only for the benefit of the political parties but for all citizens. You know, the rest of us. And now more than ever before, citizens want to have a look under the hood for the very first time in the history of elections.

And the format problem was cited again in the excellent 45-page report from March 2007 entitled *McNerney Election Protection Task Force: Final Report of Findings and Recommendations, November 2, 2006 – Californi*a General Election
<http://www.jerrymcnerney.org/pdfs/EPTF-FINAL-Mar28-07.pdf>.

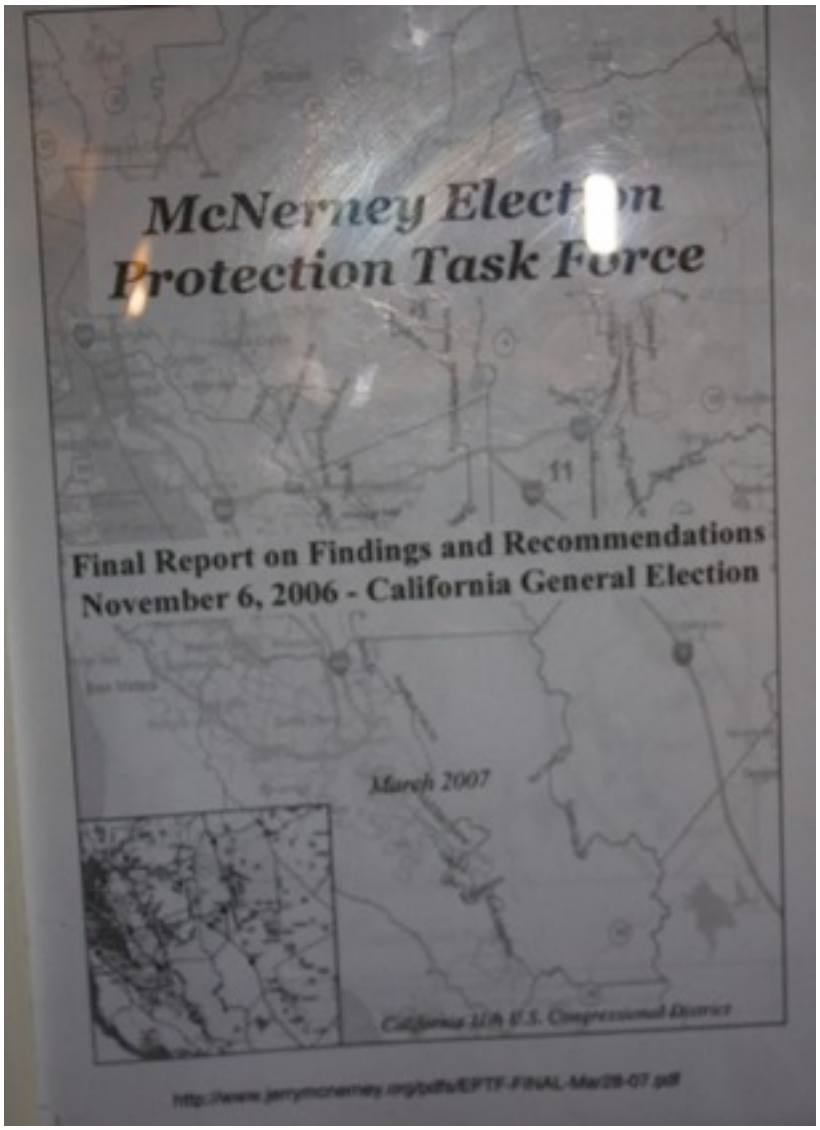
Jerry McNerney was the Democratic Representative for the 11th Congressional District in California. During the 2006 general election, a team of volunteers from his campaign and election integrity advocates "monitored the 2006 general election in strategic areas for the purpose of determining whether there was sufficient accuracy, transparency and security to assure reliability of the reported election results." This group of hard-working people looked closely and pretty objectively at the details of election procedures in the 4 counties comprising the 11th Congressional District, and wrote a report containing 36 specific and detailed recommendations for how to improve the election system, including making improvements in the format of the election results. This is an exemplary report and I have it filed in a stack of what I call "the good stuff," along with things like citizen reports on the 2008-09 Minnesota Senate recount and a February 2007 report by Noel H. Runyan on the technology for accessible voting systems
<http://www.voteraction.org/reports/improving_access.pdf>.

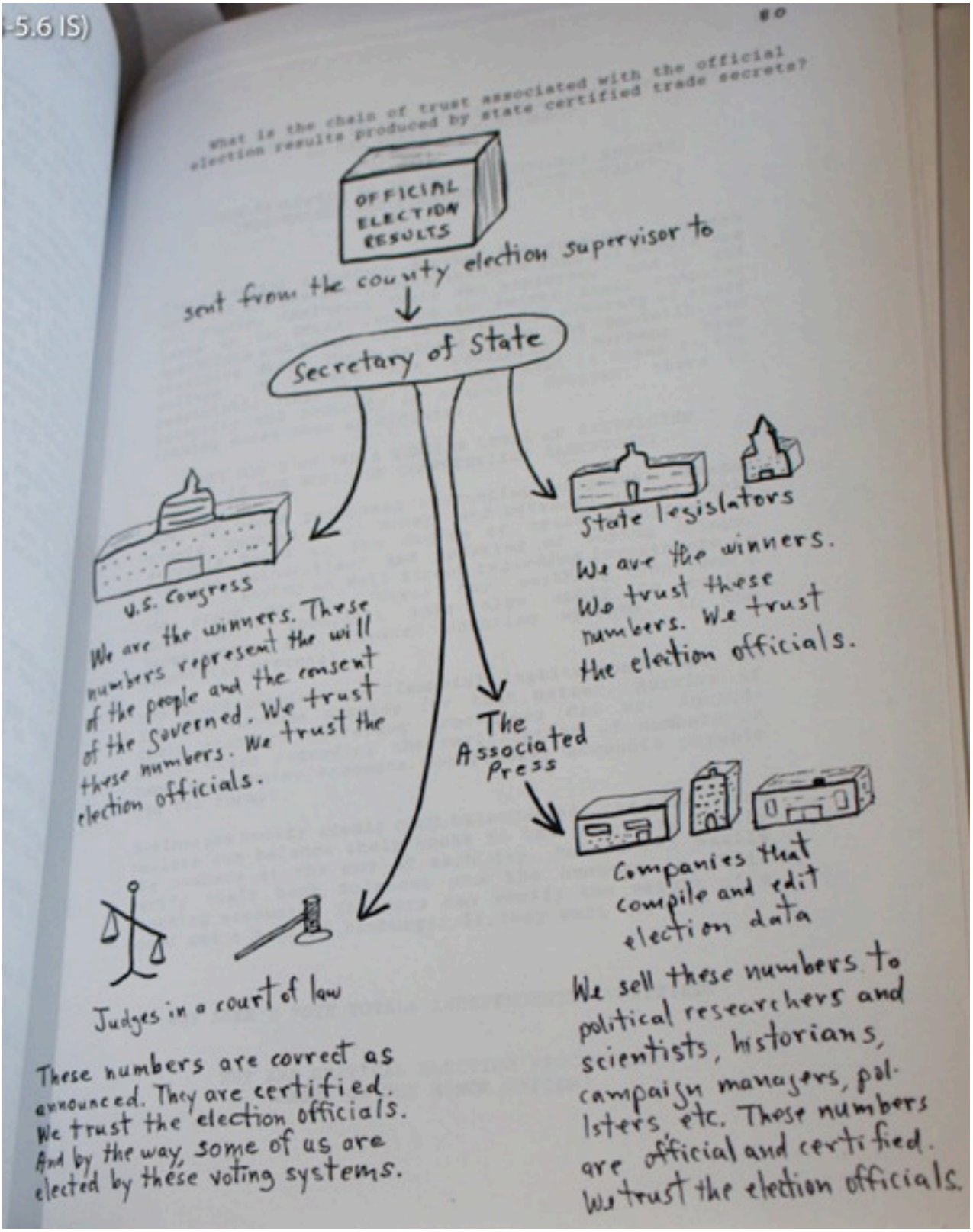
COOK Report: Were you associated with McNerney's campaign in any way?

Waskell: Not at all. Never was anywhere near it. And I've never met the man. Just read the report when it came out. And studied it. We need to see more like it. And by the way, McNerney won in the 2006 election. So no one can call his report the result of sour grapes.

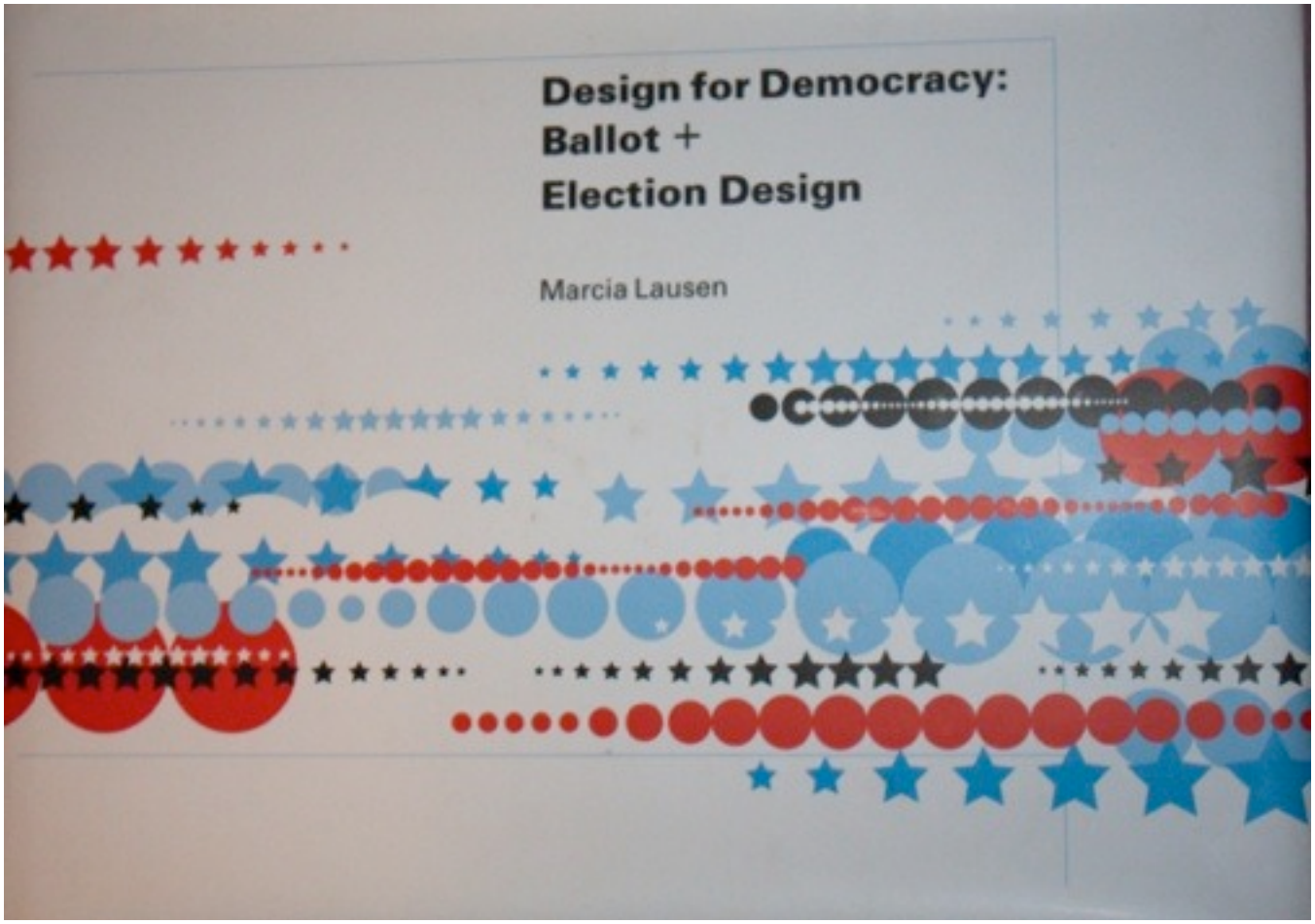
COOK Report: Let's get back to auditing again. What else do you want to say?

Waskell: For any audit that attempts to verify the correctness and integrity of election results, *you must have precinct results on election night.* That means precinct results publicly posted at the polling place. All too frequently this does not happen and there are no consequences, even though it's a violation of the law. So the precinct totals are the building blocks on which the totality of the integrity of the election depends. Saltman's 1975 report makes this very, very clear. Of course, if all of the ballots are counted centrally and not at the precinct level, then you're out of luck. In this case, you would definitely want transparency and effective oversight of the ballots from end-to-end on election night, including the time between when the ballots are dropped off by pollworkers at, say, the steps of the courthouse and when the ballots appear much, much later in the central counting room where the election computer is located.





This is a page from the 1997 draft of Waskell's book. The page is entitled, "What is the chain of trust associated with election results produced by state certified trade secrets?" NOTE: Companies compile and reformat election data, they do *not* edit it.



Design for Democracy **began as an initiative of AIGA, the professional association for design, to apply design principles and solutions to government communication. If I had my way and if I could, I would send of copy of this 186-page book to every jurisdiction in the country. The design examples are absolutely outstanding and they cover the entire range of election-related materials that a local jurisdiction has to create and distribute.**

You must have precinct results on election night. That means precinct results publicly posted at the polling place. All too frequently this does not ***happen and there are*** no ***consequences, even though it's a violation of the law.***

And then you also have to verify that the results from the individual precincts have been properly aggregated by the central computer to generate the interim or cumulative reports and the unofficial election results of election night. Election officials are very quick to point out that these are unofficial results and therefore they aren't that important because they are unofficial and incomplete; they don't include absentee, provisional and overseas ballots that have yet to be counted. This is true. But the unofficial results must be publicly proven to be accurate. This is critical because if the first set of vote totals is inaccurate, and then even if all the other votes added to these first totals are accurate, you end up with inaccurate and/or fraudulent results.

12. Show Me the Ballots!!

Public access to election data and citizen involvement are essential.

COOK Report: Explain to me why you're so focused on election data.

Waskell: I'm focused on public access to public election data in a timely manner. The public has a right to this public data. And we need a wide range of election data if we're ever going to have data-driven public policy in elections, as opposed to the experience and intuition that LEOs say they now use to run elections.

We need a wide range of election data if we're ever going to have data-driven public policy in elections, as opposed to the experience and intuition that local election officials say they now use to run elections.

It all starts with getting the raw election data online on election night. This includes the voted ballots. In my opinion, this is the only way and the most direct way to get some objective information about the accuracy and honesty of the vote-counting process. It's information that can be easily understood by the winners and losers and citizens alike. As I've said before, the post-election canvass process is not only done behind closed doors, but *it's the LEO who basically controls the data and the irregularities that are brought before the canvassing board for resolution in the first place*. And although there may be political observers present at some point during the post-election canvass process, *oversight by the political parties is not the same thing as public oversight. I can't emphasize that enough.*

COOK Report: The canvass? The canvassing board?

Waskell: The verb canvass means to examine carefully or scrutinize, and the noun canvass means a soliciting of the votes. In the context of an election, we say that the document that constitutes the statement of the votes, i.e. the unofficial/official election results, is the canvass. The unofficial canvass on election night can be a printout several inches thick, depending on the size of the jurisdiction and the number of candidates and/or issues on the ballot. The canvassing board in a jurisdiction is usually composed of one or two local judges, another county official like a member of the city or county council, and the local election official. Board members very frequently, but not always, defer to the experience and recommendations of the election official. The post-election canvass period is the 5 to 10 day period after election day when the unofficial election returns are canvassed (carefully examined) and updated with votes from absentee, provisional and overseas ballots. The canvassing board will try to resolve the anomalies or questionable ballots that the LEO brings before the board.

The public may observe the canvass process quietly from their seat, of course, but they're supposed to be seen and not heard as a general rule. Questions from the audience may or may not be welcome. One activist in southern Florida was videotaped while standing perfectly still and asking a simple question of the canvassing board. She was escorted out of the room...mucho pronto. You may think this is...unfair, and maybe even undemocratic, but this type of behavior is not surprising to me at all. Such incidents are very likely to be officially reported as someone who was "disrupting" the board meeting. The bottom line is that the post-election canvassing process has no meaningful public oversight. This is another reason why public access to raw election data on election night is so vital.

COOK Report: What kind of election data are you talking about?

Waskell: Public election data. Remember that it's supposed to be public data—from a public election. And that means accessible to the public. Timely access. There are interim/cumulative reports and the unofficial election results (They're called by a variety of different names.) that are published on election night. There are audit logs, event logs and error reports that also need to be made available—to the public. This kind of data, more correctly, *this combination of comprehensive election data has never been routinely released on election night before.* Not that I know of. And remember that the most important, the most important and fundamental piece of election data in terms of independent verification of election results, is the voted ballot. That's essential. And it's the cornerstone of restoring public trust in our elections.

Sadly, there are many existing barriers to accessing this election data. To begin with, not all states consider voted ballots to be public records. This has got to change. Look at the broader context. We have concealed counting. We have election results in a format that makes them inauditable. We have secret testing and certification of voting systems via a system that is "virtually non-existent" according to the June 2004 Congressional testimony of Michael Shamos. (Teeny tiny baby steps were taken earlier last year to address some of this secretiveness.) We have election irregularities that frequently fall into the unexplained and/or unknowable category. We have local election officials with no meaningful oversight running elections with procedures and policies that have had little or no public scrutiny. We have election observers who are very restricted in what they can actually observe. We have so-called recounts that prove very little. We have spot checks of election results instead of independent verification. We have all of this, and what we do *not* have is the ability to access the one category of election data that would do the most to answer the most critical questions regarding the integrity of the election results—the voted ballot. This is wrong! It's no way to run public elections and it's certainly no way to run a democracy.

The most important and fundamental piece of election data, in terms of independent verification of election results, is the voted ballot. Sadly, there are many existing barriers to accessing this election data. To begin with, not all states consider voted ballots to be public records. This has got to change.

COOK Report: When you put it in context like that it all sounds pretty bad.

Waskell: It is pretty bad. It's getting better, however, and I do recognize that there are numerous election officials who are doing the right thing and showing political courage in a variety of ways. I also know that the vast, vast majority of election officials are very dedicated public servants who work very hard under the most difficult, and all too frequently, politicized circumstances. They've got limited resources. They're not perfect and neither are elections. There are just too many things going on during an election and too many things that could go wrong that no LEO can possibly prepare for all of the possibilities. They constantly have to prioritize and perform a delicate balancing act.

But let's get back to the data. Public elections generate public data that citizens are starting to demand access to. Academics are also onboard the data bandwagon but most of them, not all, are primarily studying the final certified election results that they purchase from Election Data Services, Inc. (EDS) in Washington, DC. However, the unexamined assumption there is that these data sets are completely accurate.

Citizens at the local level fully understand that all of the officially certified election data has been extensively and secretly processed by numerous proprietary software packages, and that voted ballots are mostly handled behind closed doors. And citizens are in the trenches on election day and election night in a way that the academics are not. They see things differently. They see different things that the academics do not. Citizens are also most concerned about the very first set of election data that's generated and they want to be able to independently verify that data. This is infinitely harder to do than it sounds. But citizens are using a more scientific methodology in a way in that citizens are making the assumption that the most basic election data upon which *all* other data is built, this original data has to be publicly proven to be correct. (Another novel concept in the world of elections.) First things first. None of this "trust me" nonsense. They want to see election officials do their job—which is to prove that the county election results are accurate.

Citizens at the local level fully understand that all of the officially certified election data has been extensively and secretly processed by numerous proprietary software packages, and that voted ballots are mostly handled behind closed doors. And citizens are in the trenches on election day and election night in a way that the academics are not.

They want to see direct evidence—not spot checks of 1% or 3% or even 10% of the precincts, which essentially leaves 90% of the precincts unverified. They've noticed that when there's a recount, no one ever swears under penalty of perjury that the ballots being recounted are the original voted ballots. What they do see is a collection of what could be considered circumstantial or indirect evidence of accuracy. These folks want the real deal. Show me the ballots! And show them to me before the election results are certified!!

COOK Report: You said there were some states where ballots are considered public records. Does this mean you think that all states should change their laws to make ballots publicly available?

Waskell: Yes, all states should make ballots a public record. States like Florida and Maine already do this. Just look at the Minnesota recount where the ballots being recounted were put online by the *StarTribune* newspaper. That's what I call transparency! One commentator remarked that even though some Minnesotans were angry or upset or ornery about the recount process, no one was suspicious. That's the key. Everyone could see the ballots for themselves and see the basis for the decisions that were made. So election data that is publicly verified is absolutely imperative if we want to restore and retain public trust in public elections. The place to start is with the voted ballots. The bad news is that this fundamental and very critical issue is not being addressed by any of the election reform legislation at the state level that I'm aware of.

The good, good news is that there's been a project that's demonstrated the benefits of this approach. It's the Humboldt Election Transparency Project that recently took place in Humboldt County, California.

The good, good news is that there's been a project that's demonstrated the benefits of this approach. It's the Humboldt Election Transparency Project that recently took place in Humboldt County, California. After the November 2008 election results from the county's 140 precincts were certified, all of the voted optical scan ballots that were originally scanned and counted by the county's Premier (formerly Diebold) voting system were scanned again with an off-the-shelf scanner. The ballot images were put online where they could be recounted with open source software. As a result, 197 ballots were found to be missing. So inaccurate numbers were certified. The 197 missing ballots didn't change the results, but that's not the point. The point is that counting the voted ballots with open source software was more accurate than the counting done with the proprietary software.

COOK Report: What you're saying is that computer technology could be applied in an open and transparent way to independently verify election results that have been tabulated by proprietary and unexamined software.

The 197 missing ballots didn't change the results, but that's not the point. The point is that counting the voted ballots with open source software was more accurate than the counting done with the proprietary software.

Waskell: Yes, yes. Independent verification. What a novel idea! And it is a novel idea in the world of elections!! It's also a genuine and rather simple anecdote to the lack of trust in election results. I'm all for it.

COOK Report: Are there any downsides to this type of project?

Waskell: Privacy concerns have been raised. For example, stray marks on ballots could be used to sell your vote. But this is a red herring. Remember that the local election official who was brave enough to conduct this pilot project apparently had no problem with the privacy/vote-selling issue. In addition, the project took place with the involvement and full cooperation of the county's district attorney's office that took this concern under consideration and apparently didn't find it had any validity. I'm also fairly sure that once voters make any identifiable stray marks on their ballot, that ballot is not to be counted.

The Secretary of State's office is still sitting on $3.2M from a March 2009 settlement with the vendor Election Systems & Software, Inc. stemming from a lawsuit claiming the company sold 972 unauthorized voting machines to five counties in the state. ... Why not use this money to super fast-track a handful of additional pilots based on the Humboldt County prototype?

The Humboldt Election Transparency Project needs some fine-tuning, of course, like any first-time pilot project would. And ideally it needs to be replicated in counties across the country on election night, not after the election results are certified. California Secretary of State Debra Bowen has endorsed the project and we'll have to see if there are any more pilots. I certainly hope there are. But with California's precarious finances, anything requiring public funds is a non-starter. However, as far as I know, the Secretary of State's office is still sitting on $3.2M from a March 2009 settlement with the vendor Election Systems & Software, Inc. stemming from a lawsuit claiming the company sold 972 unauthorized voting machines to five counties in the state. (A very rare but welcome sign of oversight.) I can't think of a better use of some of this money than to super fast-track a handful of additional pilots based on the Humboldt County prototype. Reportedly, the biggest cost was $20,000 for the high-end scanner. Overall, the project was done on a shoestring budget and was a model partnership. It was run by citizen volunteers with the full cooperation of the local election official Carolyn Crnich, the county district attorney's office, third-party candidate David Cobb, and Mitch Trachenberg, the programmer who wrote the open source software called Ballot Browser. Kudos to everyone involved!

COOK Report: So you see a lot of advantages to this type of approach?

Waskell: Absolutely. I also need to mention that there's another project in the works based on the simple idea seen in Humboldt County. It's a Boston-based company called the Clear Ballot Group and it's currently being launched by founder and CEO Larry Moore, formerly the senior VP of Lotus/IBM; Harri Hursti is the Chief Technology Officer and won the Electronic Frontier Foundation's Pioneer Award in October 2009. I've spoken with them both about the transparency tools they've developed and would like to see election officials use to help them do their job, i.e. to prove to the public that election results are accurate and honest. Moore talked in detail about the company's very successful trial in Leon County, Florida with the full cooperation of Ion Sancho, the supervisor

of elections, who is one of the election officials I most admire. Sancho was also the person chosen to lead the hand count of ballots in dispute in Miami-Dade County, Florida in 2000.

Moore also said he'd like to do a number of pilots in different states for the 2010 mid-term elections where local election officials would self-select to have the voted ballots re-scanned on election night. A software tool like this would certainly do a lot to quell the inevitable loud and bitter post-election, he-said-she-said recriminations in a hotly contested race. It would do a lot to decrease the chances of an election meltdown in a razor thin race as well as in the swing counties of the swing states. And it would do a lot to cut down on the amount of post-election litigation, which has now become an integral part of a political campaign's strategy. Here I am dreaming again, but it would be great if the state election officials in some of the battleground states like Florida, Ohio, Pennsylvania, and New Mexico, to name only a few, would step up to the transparency plate and encourage some their optical scan jurisdictions to go to bat and volunteer for a Clear Ballot Group pilot project.



Harri Hursti
http://en.wikipedia.org/wiki/Harri_Hursti

COOK Report: What about California?

Waskell: My California dream is that there are many more pilots like the Humboldt Election Transparency Project, and the sooner the better. Otherwise California may fail to be the leader in this extremely important area of independent verification of election results.

COOK Report: But one approach is open source and the other is a commercial venture that uses proprietary software, right?

Waskell: Yes. But the overriding need is to be able to see the voted ballots on election night, and I would add, to have something in place for the 2012 general election so the country avoids another election meltdown. So right now I support both approaches, which are the most promising tools I've ever seen for election transparency. And regardless of which approach is used, it goes without saying that it would be great news for any jurisdiction that would like to see their election official prove to the public that election results are accurate and honest. We'll see what happens, won't we?

13. The Role of the FEC in the Development of Voting System Standards

COOK Report: Tell me something about the development of voting system standards that were first published in 1990.

Waskell: There's a lot on the Internet about this so I'll just hit the highlights, talk a little about my own personal experience, and fill in a few critical information gaps. It's pretty well known that the entire process went at a snail's pace. Roy Saltman's 1975 report said that standards were needed. Congress then requested a feasibility study from the Federal Election Commission's (FEC) Office of Election Administration (OEA) as it was known then. OEA did an in-house study in 1979-80 which said that the development of standards was indeed feasible. OEA then got the mandate from Congress to develop a standards program and in 1990 the standards were finally published by the FEC. So 26 years after computers were first used to count votes, we had minimum *voluntary* standards.

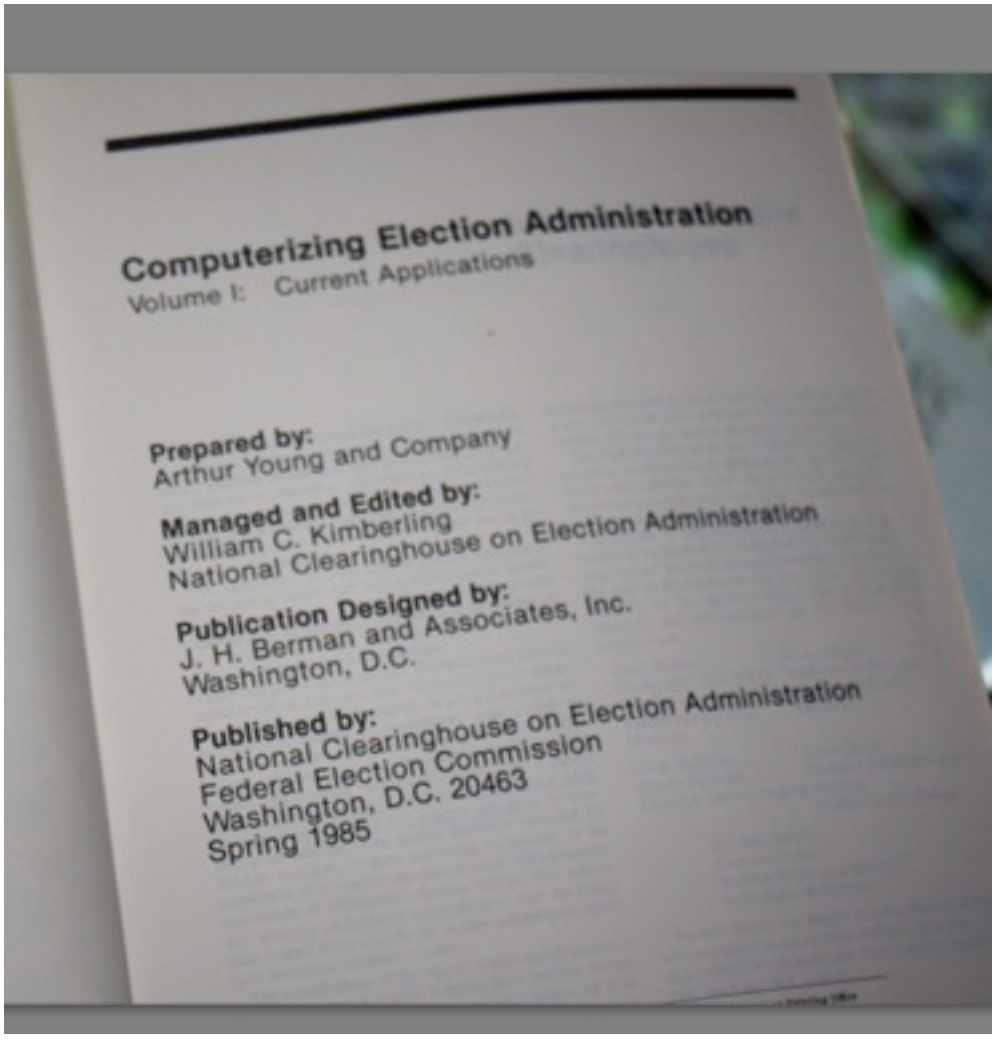
Roy Saltman's 1975 report said that standards were needed. Congress then requested a feasibility study. The study said that standards were indeed feasible. Then the Federal Election Commission's National Clearinghouse on Election Administration developed the standards and finally published them in 1990. So 26 years after computers were first used to count votes, we had* minimum voluntary *standards.

Congress specified to the FEC that the standards be minimum voluntary standards that would be "adequate" for "acceptable performance" of voting systems. But these words are never defined. No criteria are defined. So you can begin to see why the performance of voting systems is still...shall we say...unreliable in many ways. Nevertheless, in 1984 Congress began to fund the development of the standards. The FEC had said that $155,000 was necessary to develop them, but the House authorization was only $95,000.

In addition to developing the voluntary voting system standards, the OEA also had a mandate from Congress to serve as a clearinghouse of information for election officials and became known as the National Clearinghouse on Election Administration, or just the Clearinghouse. The Clearinghouse contracted for studies with accounting firms like Arthur Young and Company, The Election Center, and current and former election officials. Marie Garber, former LEO in Montgomery County, Maryland authored numerous reports for the Clearinghouse. Independent computer and/or election experts need not apply.

The Clearinghouse had a total of five people in its office. Two of those five were staff who did

mostly administrative things, Brian Hancock and Peggy Sims. There was one staff director, John Surina. The two people who commissioned studies to help election officials in running elections were Penelope Bonsall, the Director of the Clearinghouse and Bill Kimberling, Deputy Director. Bonsall was in charge of the standards project; she had previously worked for a vendor. So there were two people contracting for election-related studies and/or guidelines for election officials in more than 10,000 different election jurisdictions in America. But at one time or the other, Kimberling was traveling around the globe assisting over a dozen countries with computerizing their elections.



This volume was one publication of many intended for US election officials. But the advice and assistance of the FEC's Clearinghouse was often sought by other countries that wanted to computerize their elections.

But at one time or the other, Kimberling was traveling around the globe assisting over a dozen countries with computerizing their elections.

The *Introduction by the Clearinghouse* to a 1981 publication entitled *Votingsystems Users 81: A Directory of Local Jurisdictions* says it all. "There is, however, a very real limit on both the breadth

and depth of information that a small office can provide. ...the task of providing sound and useful information on the variety of voting systems now available on the market would require a depth of technical knowledge that we cannot hope to possess at our current budget level. ...If you are interested in what experience others have had with various systems, we encourage you to locate jurisdictions similar in size to your own and to contact them directly using the telephone numbers provided. ...We also recommend that you contact the vendors directly using our companion volume *Voting Systems Vendors '81*." (After Florida 2000, Congress established the Election Assistance Commission which took over the functions of the Clearinghouse.)

Since this small office with the small budget lacked sufficient technical knowledge and expertise, they obviously would need outside assistance for the development of the standards. The Clearinghouse hired one technical consultant to help with the standards, the late Robert J. Naegele, President of Granite Creek Technology in La Selva Beach, California. (Naegele was reportedly chosen by a non-competitive, sole source bid.)

According to Saltman, "Once the FEC commenced the development of the standards in 1984, it did not request the assistance of NIST, although this agency offered its expertise."

According to Saltman, "Once the FEC commenced the development of the standards in 1984, it did not request the assistance of NIST, although this agency offered its expertise." Who else was not hired? Mainstream and independent computer scientists, computer security experts, election experts who were not election officials, usability experts, and accessibility experts. Who was directly and primarily involved? One technical consultant, election officials from around the country, the vendors and the Clearinghouse staff.

I attended quite a few of these public meetings when they were held in DC. The first thing I noticed was that I was the only member of the public present.

Public meetings were held in Washington, DC and several other cities throughout the country. Comments from members of the public were submitted but I don't know that the FEC responses were ever published anywhere. The only reason I read the responses I did was because Mae Churchill of Election Watch mailed them to me.

I attended quite a few of these public meetings when they were held in DC. *The first thing I noticed was that I was the only member of the public present. The vast, vast majority of the attendees were election officials and vendors.* Someone from an organization representing the accessibility community was usually in the audience at the meetings I attended, and so was Curtis Gans from the Committee for the Study of the American Electorate. And so was Robert Naegele. In addition to these rather large meetings, there were also smaller meetings to focus on some particular topic.

COOK Report: Talk a little about the process and what you observed.

Waskell: At the larger meetings, the vendors typically met with Naegele in break-out sessions, but at the smaller meetings the vendors were sitting around a table with other people. At many of the smaller meetings I attended, I immediately noticed that the vendors had veto power and they used it. If the vendors objected to anything, they were appeased. The got whatever they wanted. The vendors did not compromise very much. And in the end, anything important that the vendors *dis-approved* of never made it into the standards. But anything critically important that the election integrity folks *approved* of never made it into the standards.

It was interesting to observe how disagreements were usually handled at the smaller meetings where there was more of an opportunity to hear the back and forth among the vendors and other participants seated around the table. A vendor would calmly voice a concern about something. A short discussion would follow where opposing viewpoints were aired. Then frequently there would be a short break and the vendor would go into a huddle with someone...usually the Clearinghouse staff or a person from a consulting firm. And what do you know? The issue was resolved...in favor of the vendor. Issues were sometimes resolved during the longer break for lunch.

The FEC had hired a consulting firm with little to no experience in elections, and then put them in a room full of vendors for a full morning—literally behind fully closed doors—so the vendors would have an opportunity to tell the consulting firm...what?? We want you to get tough with us?!

I remember that at one meeting I heard an announcement during the morning session that the FEC just hired American Management Systems, Inc. (AMS) of Arlington, Virginia to help with the standards. AMS was a large technology and management consulting firm whose clients were a variety of government agencies and corporations. The speaker said something to the effect that AMS did not know much about elections or that they didn't have much experience in elections. This was a true statement, if we assume that the current information on the AMS website about the com-



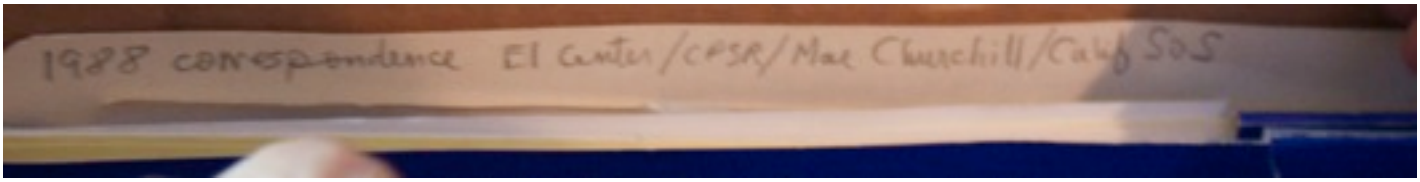
pany's history is also correct. It's a history that begins, "AMS was founded in 1970 by five former Defense Department "Whiz Kids." <http://www.fundinguniverse.com/company-histories/American-Management-Systems-Inc-Company-History.html>. Anyway, the speaker said that because of AMS' lack of election experience, the vendors were bringing them "up to speed" during the morning in another room, and the AMS people would be joining the meeting in the afternoon.

I almost fell off my seat. My pen fell out of my hand. I gasped. I was the *only person in the room* who had this reaction, but I knew in my gut and in my mind that this would not bode well for...anything having to do with the standards. The FEC had hired a consulting firm with little to no experience in elections, and then put them in a room full of vendors for a full morning—*literally behind fully closed doors*—so the vendors would have an opportunity to tell the consulting firm...what?? We want you to get tough with us! Hold our feet to the fire because these are elections in the United States of America and we set the standard for free and fair and transparent elections for the entire free world!!

I had another rather interesting experience regarding process. At one of the large public meetings, I decided to attend the session where Robert Naegele met with the vendors. The agenda that was handed out indicated that the meeting was set for 3:00 p.m. in such and such a room of the hotel. I showed up about 20 minutes early but the room was dark and empty. I went back to the main meeting room and asked what happened. I was told that the five vendor representatives had planes to catch and had to leave at 5:00 p.m. so the meeting was held at 1:00 p.m. instead. No one had made a public announcement about the change of schedule.

Naegele had constantly been pleading with the vendors—his phrase—to write their software in a high-level language so it would be easier to be read and understood by anyone in the public who might get the chance to review it.

As a result, I missed an opportunity to witness what actually happens when five vendors meet with one person to discuss the standards in a room behind closed doors where there is no public record of what takes place. I do know that Naegele had constantly been pleading with the vendors—his phrase—to write their software in a high-level language so it would be easier to be read and under-



One of Waskell's Mae Churchill folders: 1988 correspondence Election Center/ CPSR/ Mae Churchill/ California Secretary of State

stood by anyone in the public who might get the change to review it. Maybe I would have heard some of those pleadings in person at that meeting. But the pleading was all in vain because in the

final standards, the vendors got their wish. There was no requirement to use a high-level language. Naegele also pleaded with the vendors to improve the documentation of their computer code. The same request is still being made today in the public comments submitted to the Election Assistance Commission (EAC), which is working with NIST on keeping the standards up-dated. And citizens and computer scientists alike continue to point out problems with the accuracy requirement.

In the final standards, the vendors got their wish. There was no requirement to use a high-level language.

Naegele left behind quite a bit of correspondence with the FEC about his recommendation for a high-level language, but let me give you some examples of other comments he had about the standards development process itself. From his memo MC9245 dated September 2, 1989 we have this observation. "But the technical reviews should have brought refinement, focus on essentials and more effectiveness in achieving the desired result. What actually happened was the usual leveling process. They [the early draft sections of the standards] were reduced to the least common denominator of inoffensiveness."

[**A Note to Readers**: Eva can cite everything. Unfortunately, her archives are pre-digital. Priceless documents on paper, tape, video cassette, etc. On November 30, 2009 I received a tour of her archives while taking many photographs and recording 90 minutes of commentary as she explained what she had. Eva is seeking funds to digitized everything and make it publicly available on the Internet. Investing in such a project is an *opportunity* that we hope Google will recognize.]

Waskell: Speaking of correspondence regarding the FEC process, here are a few excerpts from a 7-page letter dated November 20, 1989 from Mae Churchill to the Chairman of the FEC, Danny L. McDonald. From pages 3 and 4. "By 1987, serious differences between Naegele and Bonsall surfaced. Naegele was consistently overruled by Bonsall. According to Naegele, line by-line 'editing' was done by Bonsall during 1988-89, a process which distorted the intent of [his] material, rendering it either technically meaningless or utterly confusing." And this. "Naegele's account of the drafting process is replete with instances of vendor influence predominating over his recommendations. Two crucial instances are cited by him." One of the instances has to do with the fact that the minimum requirements do not include effective audit trails. (The same deficiency can be found in the 2002 and the 2005 standards.)

Let's move on to pages 5-6 and then I'll stop. "According to Naegele, the single most important flaw in the process of producing the Voting Standards was the total absence of a role for independent computer professionals and experts in elections, other than election officials. For the most part, the Voting Standards in their final form reflect the influence of the vendors together with the Clearinghouse staff. The vendors are of course, the principal group affected by the standards. The phenomenon of an unaccountable private industry writing the rules affecting its own operation, although now commonplace, is particularly odious when it involves American elections." You don't hear or see the word "odious" that often—it means disgusting or offensive—but Mae Churchill was a very bright lady. She was the first woman to receive a PhD in economics from Wharton. And in my humble opinion, for what it's worth, the use of the word "odious" is quite appropriate in this case.

Mae Churchill's letter dated November 20, 1989 to the Chairman of the FEC reads in part, "The phenomenon of an unaccountable private industry writing the rules affecting its own operation, although now commonplace, is particularly odious when it involves American elections."

COOK Report: There must have been other critics of the FEC standards. What did these people have to say?

Waskell: The primary critics were CPSR and Election Watch. While people from these organization were for the most part unable to attend the public meetings, there was some substantive correspondence between them and the FEC in the August 1989 through July 1990 timeframe. Howard Jay Strauss from Princeton, the computer scientist for Election Watch, called the standards "seriously flawed" and "toothless," which is a pretty good summary. After all, the standards lacked any kind of effective provision for enforcement. And today there is still no *effective* enforcement by any agency at the federal, state or local level. Mae Churchill referred to the standards as being "primarily the vendors' voice saying: Trust me."

Strauss, David Stutsman, Rebecca Mercuri and others all *strongly criticized the standards for allowing the vendors and their proprietary software to control elections,* not to mention the many specific technical flaws that were cited by these critics related to, for example, the troublesome accuracy requirement and the lack of clear, specific performance test requirements for compliance with the standards. (In other words, some kind of testing authority had to be set up to test the voting systems to see that they complied with the standards.) I've read many of the documents that the critics submitted, and I can say that virtually all of the serious flaws they pointed out back then were brought up again, and *additional* flaws were found, in the next round of updating the 1990s standards which occurred about 12 years later in the wake of the Florida disaster.

While some recommendations from the critics were certainly incorporated into the standards, very few, if any, of the *major and fundamental criticisms* from the voting integrity people at CPSR and Election Watch ever found their way into the final 1990 standards that clearly protected the proprietary software of private companies, endorsed the status quo of privatized elections, and ignored the interests and the rights of the voters. Here <http://www.eac.gov/News/meetings/News/meetings/EAC%20Roundtable%20042408.pdf> are some comments from the December 6, 2007 First Open Workshop on the standards held by the Election Assistance Commission (EAC). Mercuri's paper *Un(der)addressed Issues in Voting System Standards* is on page 134 of the pdf. And when Lillie Coney from the Electronic Privacy Information Center testified before the EAC on August 23, 2005 <http://epic.org/privacy/voting/eac-8_23.pdf>, she noted that the standards' treatment of security, transparency and auditability reflected no improvement over the previous standards. This gives you an idea of how much remains to be done.

COOK Report: What did the FEC have to say to the critics about their number one concern? What was *their* worldview?

The FEC worldview at the time is explained in a 4-page letter dated April 25, 1990 from Penelope Bonsall to Mae Churchill. "Concerning the 'privatization' of computer vote-counting, the election process is not the only governmental function that relies on proprietary software."

Waskell: Glad you asked. The FEC worldview at the time is explained in a 4-page letter dated April 25, 1990 from Penelope Bonsall to Mae Churchill. From page 1. "Concerning the 'privatization' of computer vote-counting, the election process is not the only governmental function that relies on proprietary software. The reliance on private industry is a common and accepted practice in federal, state, and local government. For example, county payroll and accounting systems are proprietary and licensed. Private vendors are responsible for the extent to which these systems work, one of the largest suppliers being American Management Systems. Another example is the tax system for New York City, which is being developed by Arthur Anderson."

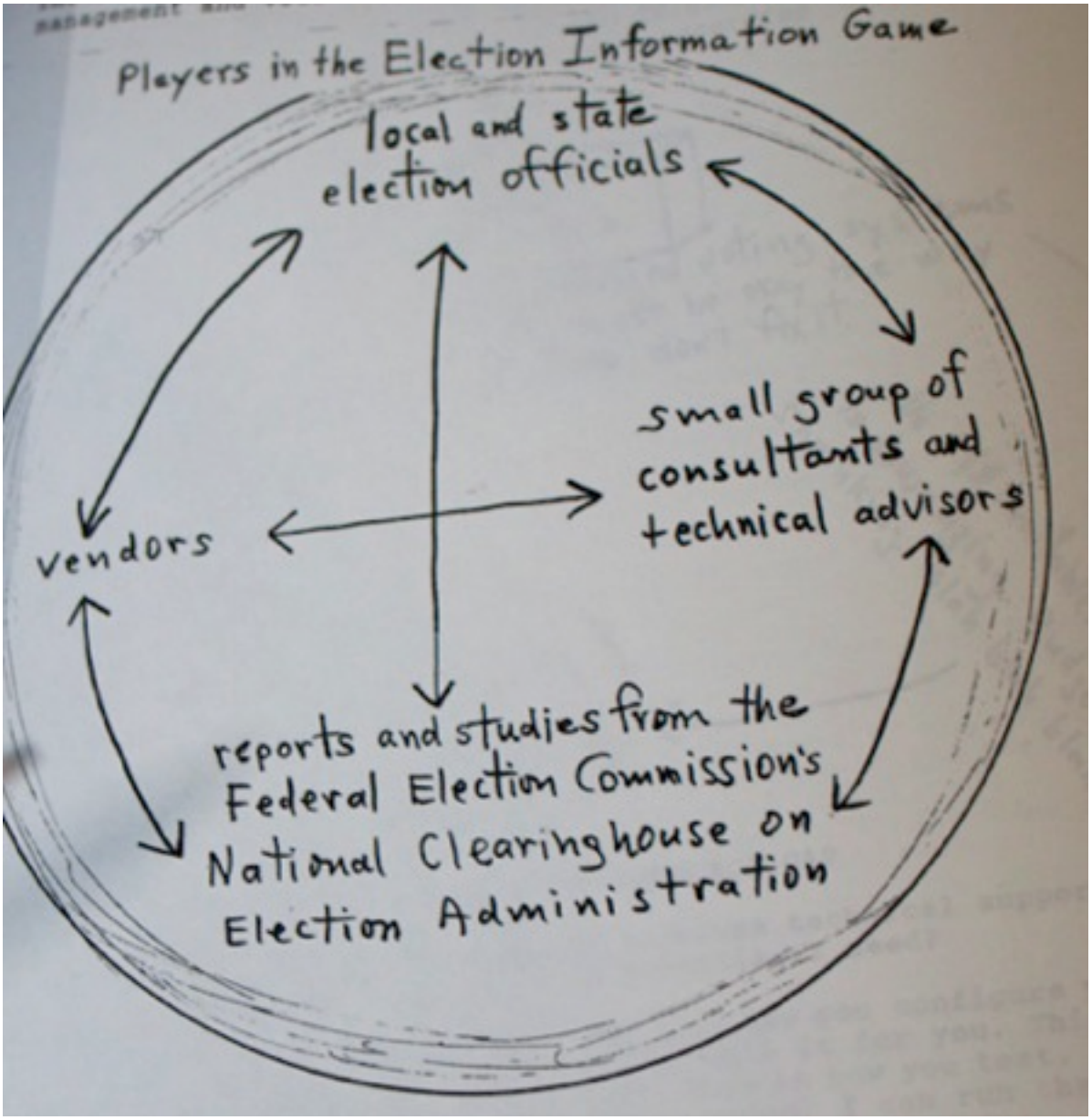
And on page 2. "Concerning the release and review of source code, the Commission believes that routine release of such sensitive information to jurisdictions responsible for programming elections could violate election security and put election officials in a compromising position. Craig Donsanto of the U.S. Department of Justice's Election Crimes Branch concurs with the Commission's position on this matter, as our responses to Messrs. Strauss and Stutsman indicate."

"...the [Federal Election] Commission believes that routine release of such sensitive information to jurisdictions responsible for programming elections could violate election security and put election officials in a compromising position."

In the concluding paragraphs of a 7-page letter dated April 25, 1990 to Howard Jay Strauss, Bonsall noted that "The requirements and recommendations of the standards program were developed with the real world [of elections] in mind." You'd have to read the entire letter to understand that the real world of elections was being compared to the rarified and opinionated world of computer experts, and that Bonsall was basically saying that Strauss' numerous concerns may have been valid in *his world* but they were not valid in the real world of elections. This is an extremely interesting letter because it sheds light on the rational that election officials still use today to dismiss the claims of computer experts who criticize election technology.

Bonsall also wrote a 6-page letter to David Stutsman that same day in April. Here's an interesting tidbit from page 3. "State and local officials should have no compunctions about certifying vote totals if the software has been qualified by an independent test authority, certified by the state, and

properly managed by the local jurisdiction. True, election results may still be endangered by errors in or manipulation of the system's election specific programming. Automatic and manual records will be available, however, to assist in auditing system preparation and operations. Election officials may also combat problems by implementing administrative procedures promoting adequate system preparation, testing, and accuracy." So there you have it. The resource-starved state and local

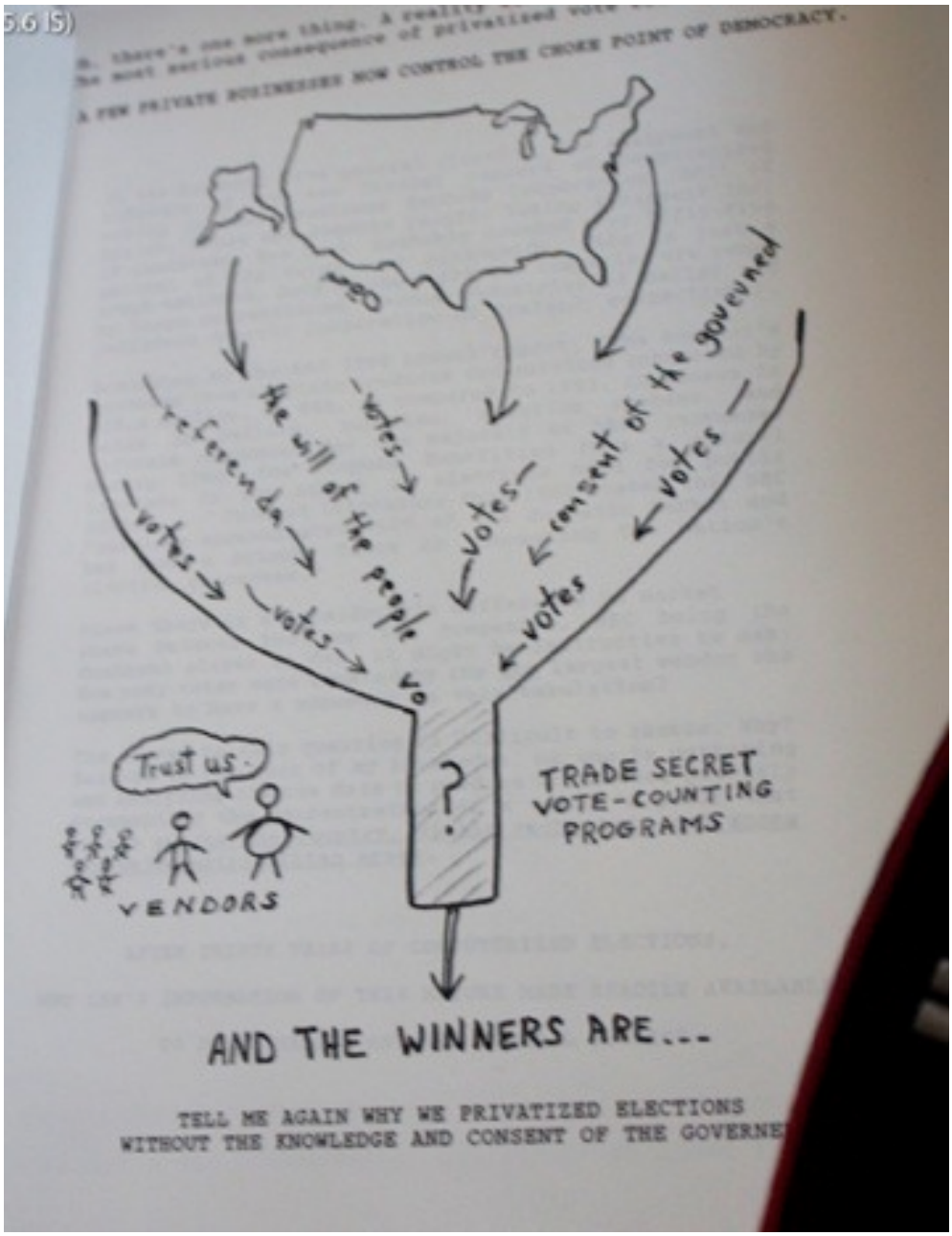


This is a page from the 1997 draft of Waskell's book. The page is entitled, Players in the Election Information Game. It's important to note that the small group of consultants and technical advisors to the Clearinghouse and the election community in general have remained the same over the decades. They have conversations primarily among themselves, and their work products and reports have never been through the gauntlet of peer review.

election officials can and will solve their own problems.

COOK Report: Was open source software ever a consideration?

Penelope Bonsall's view of open source software in elections. "It's a public-policy question; it's too broad for us to consider. It would have to compete with private interests. I don't know who would fund it. I just don't see how you would eliminate private efforts in this area."



This is a page from the 1997 draft of Waskell's book, but it's still an accurate reflection of the choke hold that private companies have on elections. The recent merger between ES&S and Premier Election Solutions (formerly Diebold) is currently under review by the Department of Justice. Concerns have been raised about the implications of the monopoly power this merger gives to ES&S which would control about 70% of the jurisdictions in the country.

Waskell: Open source was never a consideration on the part of the LEC. Here's an often-repeated quote from Penelope Bonsall about the subject, and it's an accurate reflection of the brief conversa-

tions I had with her about open source software in elections. "It's a public-policy question; it's too broad for us to consider. It would have to compete with private interests. I don't know who would fund it. I just don't see how you would eliminate private efforts in this area." *Of course,* the FEC couldn't see how to eliminate private efforts, i.e. privatized vote-counting in elections. The FEC was totally occupied with protecting and respecting the private efforts and the private interests of the private companies whose private software counted votes.

But Mae Churchill and other Election Watchers certainly thought that open source software should be considered. So did I. And as I mentioned before, so did Irwin Mann, a mathematician at New York University who made an argument for the use of open source software in elections in a paper he presented at the 1993 Computers, Freedom and Privacy conference that had a panel on electronic voting and elections.

COOK Report: So if the voting system standards had been developed in a truly open and neutral forum where input from the public sector, independent computer scientist, security experts, and election experts like Roy Saltman were paramount and seriously considered, along with the rights of voters, there would not have been any room for the private companies whose proprietary software now controls elections.

Waskell: The role of the private companies would certainly be diminished. But remember that no matter what kind of change you want to implement in the election process, elections will continue to take place. You can't cancel an election while you swap out one vote-counting system for the other. It has to be a gradual process. In addition, the private software packages of the vendors were integrated into the entire election process, so any brand new or open source software would face monumental compatibility problems. In short, making any significant changes in an election is like doing open-heart surgery on someone who's playing tennis.

I think what you're trying to say is that if the Internet Engineering Task Force model that developed the Internet was adopted and used to develop the standards, we'd certainly have something very different than the utter mess we have today. Of course, there was no public Internet in the late 1980s but the development process certainly could have been much more transparent, open and voter-friendly.

COOK Report: How did the FEC itself view the standards development process?

Waskell: This is how they officially described it to the general public. Their January 25, 1990 press release says in part, "The standards are the culmination of 11 public meetings conducted nationwide and are based on the input of more than 130 state and local election officials, independent technical experts, vendors, congressional staff, citizens, other federal agencies, and members of the Commission and it's [*sic*] National Clearinghouse on Election Administration. Even in draft form, the standards received favorable support from many state and local election officials as well as the National Association of Secretaries of State." This is all pretty accurate information, although I'd quibble with the phrase "independent technical experts." The other words the Clearinghouse used frequently in describing the process were open and consensus, i.e. the standards development

process was open—there were 11 public meetings and over 130 people provided input—and the standards represent a consensus on technical and operational issues.

If you define consensus as "the majority opinion," then yes, the standards were a consensus in that they represented the majority opinion, i.e. the opinion of the vendors and the Clearinghouse staff. If you define consensus as "general agreement or concord, harmony," then the standards were definitely not a consensus. It was closer to a David versus Goliath situation...and citizen David lost. And we've just heard what Robert Naegele, the FEC's own technical consultant, thought of the process. At one point he notified Bonsall of his intention to formally request that his "name not be associated with the Standard." She asked him not to do that and he didn't. Naegele felt that if his name was not on the standards, it would diminish them even further.

COOK Report: Anything else you want to say about the process?

Waskell: Before I make a final comment about the process, let me say something about the people involved. It's important to note that the small group of consultants and technical advisors to the Clearinghouse and the election community in general have remained the same over the decades. These advisors have conversations among themselves and with election officials...in private. We're talking about a well-established, and unexamined, relationship that has grown over many, many years. All of these people trust each other. *However, the work products and reports authored by this small group of consultants and technical advisors have never been through the gauntlet of peer review.* So now that independent computer scientists and security experts have been part of the picture since 2000, public servants in election administration are frequently faced with dueling experts. So you can imagine what a dilemma this is for local and state election officials.

And finally, I know you'll think I'm seeing the glass as half empty, but there's something else that was missing in the process of developing the standards that I think is important. There were no public hearings. A public meeting is not anything like a public hearing, which is likely to get more press coverage and raise public awareness. It also puts people and their testimony on the public record. Furthermore, Mae Churchill had a one-hour phone interview with Penelope Bonsall on July 14, 1988 and typed up four pages of notes on the interview. Something on page 3 really caught my eye. "There were six closed, 1-2 day meetings with vendors only, unpublicized. The most recent took place in December 1987 for review of the presumably final draft. A number of revisions were suggested at that meeting and are being incorporated in final, final draft. (Copies of revisions are being sent to me.)" Wouldn't you love to have been a fly on the wall—a fly with a tape recorder—at those six meetings!!?! I know I would. But since I was not present at those six unpublicized meetings that lasted one to two days and were held behind closed doors, I have no idea whatsoever what was said. Therefore, I will not go out on a limb and comment about them.

At one point he [Naegele] notified Bonsall of his intention to formally request that his "name not be associated with the Standard." She asked him not to do that and he didn't.

COOK Report: Anything else?

Waskell: I think I've said quite enough.

14. Testing and Certification of Voting Systems

COOK Report: Back in 2007, the offices of the secretaries of state in California and Ohio produced lengthy reports that detailed a multitude of weaknesses and problems with the current crop of voting systems. As a result it's now widely recognized, and indisputable as far as I can tell, that our voting equipment is not only unreliable but also riddled with security vulnerabilities. How did these flawed and tamper-friendly systems ever get certified for use in the first place? Give us a little background to help us understand what happened.

Waskell: What happened was that there was no adult supervision. Up until the early 1990s, voting systems were tested individually by each state before the state certified them for use. The quality and the amount of state testing varied enormously from the superficial to the gold standard, which was eventually set by Florida. There was little if any usability testing at the state level. This didn't really show up on the radar screen of any of the state testers until after Florida's butterfly ballot.

None of the state testing included a line-by-line examination of the vote-counting software because the states respected the vendors' rights to keep their software a secret. And once a piece of software was state certified, the state had little if any control or effective oversight of what happened to the software at the local level. The vendors installed the software on the local election computer and they were the ones who maintained it from then on. They provided upgrades. They would make changes in the software right before an election. Vendors would usually have to put the vote-counting software in escrow with the state office before the election, but if they changed the software at the local level after this was done, there really was no way for the state to know about it.

There was no requirement in place that would routinely guarantee that the software that ran on election night was the software that was certified. This point is often overlooked by the media when they inaccurately report that the escrow system is somehow a security feature that helps prevent election fraud.

Please note that even if the vote-counting software *was* publicly inspected and put into escrow prior to an election, there was no requirement in place *that was in anyway enforced,* and that would *routinely guarantee* that the software that ran on election night was the software that was

certified. This is an important point often overlooked by the media when they inaccurately report that the escrow system is somehow a security feature that helps prevent election fraud.

Nevertheless, in a few states the testing process did get some serious attention. In 1984, Illinois became the first state to systematically and exhaustively test the voting systems in all of its 111 jurisdictions. The State Board of Elections testing found tabulating errors in 28% of the systems that were tested. For some ballots, one-half vote was recorded; for others, two votes were recorded. There were errors in straight-party voting (that have persisted nationwide until this very day) and over voting, i.e. voting for more than the allowable number of choices. In one county, 42% of the precincts had errors. And with results like that, what do you think happened? I'll tell you what happened. The testing came to a halt because the state legislature didn't provide any more funding for the project.

In 1984, Illinois became the first state to systematically and exhaustively test the voting systems in all of its 111 jurisdictions. In one county, 42% of the precincts had errors. And with results like that, what do you think happened? I'll tell you what happened. The testing came to a halt because the state legislature didn't provide any more funding for the project.

I talked at great length about the testing with Michael Harty, the Director of the Division of Voting Systems and Standards at the State Board of Elections, who was closely involved with the project. He often said that no one seemed to care that there would be no more testing. He soon left the election department. I talked with him on and off for the next few years. The last time we spoke he was working in southern Illinois in a library...at a university....maybe. He was a great source of information about elections and I always enjoyed our conversations. And I will *always* remember the sound of sadness in his voice. "No one cares." The September 17, 1985 report about the testing results was something I very often included in the information packet I sent to people.

COOK Report: What about some of the other states?

Waskell: California never did statewide testing on the scale that Illinois did. But the late Robert Naegele, who worked on the FEC's voting system standards, was a consultant to the California Secretary of State's office for 30 years. He also worked as a consultant for several other states, including Florida. Naegele wasn't a programmer so he couldn't read computer code but he didn't have to. As I said before, none of the states required that vote-counting software be examined line-by-line. And even though he did know a lot about voting equipment, he had little input from mainstream computer experts throughout his career.

In Pennsylvania, the vendors had to deal with Michael Shamos, one of the state examiners of voting systems. He gets tough with the vendors. Surprises them with his questions and what he does with the voting equipment. The entire test is videotaped and available for public inspection. Sha-

mos wrote a report for the state in 1980 that was highly critical of the Votomatic punch card system and went into great detail about its many flaws. He recommended that the Votomatic not be certified for use in the state. Two other state examiners recommended just the opposite. The Votomatic was certified. Shamos also examined voting systems in Texas for a number of years. And over all he "has personally examined over 100 different electronic voting systems." His election resource page is outstanding and quite comprehensive <http://euro.ecom.cmu.edu/resources/elibrary/evotinglinks.shtml>.

Douglas Jones, a professor of computer science at the University of Iowa, is another excellent state examiner. His website <http://www.cs.uiowa.edu/~jones/voting/> has a good overview of elections, including an historical perspective, and links to all of his publications and presentation. Highly recommended. Ohio has an interesting setup. Their Board of Examiners is composed of election officials.

For a very long time, Florida was the state with the most thorough and rigorous testing and certification process for voting systems. It was a program they designed and developed in-house with the use of outside consultants. It was widely known as the gold standard for state testing and certification. The vendors constantly complained about how long it took to get a voting system through the Florida process. I'd like to point out that in November 2000, it was voting systems in the Sunshine State—systems that had never undergone meaningful usability testing—that became the flashpoint for the electoral storm that followed.

COOK Report: So does each state still do its own testing?

Waskell: The states can now accept the tests results from a new testing entity I'll speak about in a moment, and then go ahead and certify the voting system after they've made sure it complies with state law. Or the state can do additional testing and then move forward with certification.

Remember I said that the individual state testing was very time consuming for the vendors because they had to take their systems to each individual secretary of state's office and have it go through the testing and certification process required by that state. By the late 1980s, the vendors were certainly behind the push for a centralized testing process because it would be very convenient for them to have one location testing their systems. Hence, the idea arose for the Independent Testing Authority (ITA). But ITA is a complete misnomer. These are private labs and they're not independent. They're paid by the vendors to test their systems, which creates a conflict of interest. Frequently a vendor rep was present during the testing. Everything was done behind closed doors without any public oversight at all. None. No independent expert reviewed the testing protocols. Everything about the process is secret. The ITA's final report was confidential and sent only to Doug Lewis at The Election Center, who then distributed it election officials as necessary. Citizens have been complaining for years about all of this secrecy and conflict of interest.

The Election Assistance Commission (EAC) is working to establish a testing fund to which all of the vendors contribute. This fund will then be used to pay the labs. This is a much better arrangement but the details haven't been finalized. So as of today, the vendors are still paying the labs. But starting last year, the final reports from the ITAs will be posted on the EAC website. Better late than never. And by the way, there is one person of unknown qualifications named Shawn Southworth who has tested and given a passing grade to a majority of the (flawed) voting systems used

across the country.

COOK Report: When did these quasi-independent testing labs get started?

Waskell: In the early 1990s. I don't want to get into all of the details, so I'll be brief. The National Association of State Election Directors (NASED) began to qualify labs to do the testing. Actually it was a committee composed of a few NASED members and technical consultants, typically those with an established relationship with the election community. No mainstream or independent computer scientists need apply. The Election Center, a nonprofit organization of election officials, served as secretariat to the committee and, Doug Lewis, the head of The Election Center, was the only person who received the confidential test results which were only distributed privately to state election officials who asked to see them and who, of course, never released them to the public. Pretty transparent, huh? And as far as I know, local election officials who purchased the voting systems have not *routinely* reviewed these ITA reports *in detail.* Also note that Doug Lewis of The Election Center and members of the NASED Voting Systems Board were individuals not truly accountable to the public.

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Since 2000, activists have done public records request for correspondence between the ITAs and the vendors. Emails indicate that the two groups have an unduly close working relationship, which is contrary to the rules of NIST's National Voluntary Laboratory Accreditation Program. This is the program that sets the criteria for how you go about qualifying a lab to do software testing. And the folks at NIST do a *really good job* in this department. They are the experts! So if a testing lab isn't following the rule book from NIST's Lab Accreditation Program, it's a big deal. It was citizens who discovered that the ITAs were not following NIST's rule book. They were the curious ones. *They did due diligence*. State election officials have never bothered to look into this relationship. State election officials just assumed that the ITA testing guaranteed that voting systems were reliable and counted votes accurately. And they were perfectly content with the secretive system that was in place. Until "Wyatt Earp" showed up in Dodge City.

In 2004, California Secretary of State Kevin Shelly rode into town and pulled back the curtain on the ITAs. He did his job; he looked more closely at how voting systems were approved. He said he "was shocked. Everyone seemed to be in bed with everyone else." Read all about it in the excellent overview in the May 30, 2004 Mercury News article by Else Ackerman entitled *Lax controls over e-*

voting labs, Election Officials Rely on Private Firms. And here are two more must-read articles that complete the picture, including the vendors' viewpoint. A November 1, 2004 article by Kim Zetter of Wired entitled *E-Voting Tests Get Failing Grade*, and an October 23, 2008 article by Greg Gordon of McClatchy Newspapers entitled *Warning on voting machines reveals oversight failure.*

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And by the way, Kevin Shelly also found uncertified election software in use in California counties. He was bold enough to decertify the systems and make the vendors actually follow the law!! Kudos to him! The vendors must have been absolutely livid with rage.

Now let's consider the following. You note that the use of uncertified software at the local level was *never* a problem before...*in just about anywhere in the country.* Why is that? Because no one from the state had ever bothered to check. Is this what you could call an honor system?

COOK Report: So all of the testing done by these privately operated ITAs over the last decade or so wasn't that thorough, was it?

Waskell: It was anything but thorough. Michael Shamos, the Pennsylvania state examiner of voting systems who also teaches at Carnegie Mellon, in testimony before Congress on June 24, 2004 described it best when he said that "the system we have for testing and certifying voting equipment in this country is not only broken, but is virtually nonexistent. It must be re-created from scratch or we will never restore public confidence in elections." Then he put in a plug for transparency, bless his heart. "I believe that the process of designing, implementing, manufacturing, certifying, selling, acquiring, storing, using, testing and even discarding voting machines must be transparent from cradle to grave, and must adhere to strict performance and security guidelines that should be uniform for federal elections throughout the United States." We are so far from this ideal it isn't funny; it's a national tragedy.

For decades the ITA's inadequate testing gave a passing grade to one voting system after another that later on proved to be flawed—usually on election day. But remember what they were set up to do. The ITAs just had to test to see if a voting system complied with the Voluntary Voting System Standards. That's all the ITAs have to test. And the standards don't touch upon security or system vulnerability or involve any kind of risk assessment. They don't talk about usability or human factors, even though Saltman's 1975 report clearly mentioned human engineering factors. And the development of these standards was not only heavily influenced by the vendors, as we've just learned, but the standards contain many loopholes that let parts of the system avoid testing, like the operating system and Commercial Off The Shelf (COTS) software.

Furthermore, the ITA testing environment is strictly controlled and very limited and *in no way* re-

flects the conditions on election day. The testing did not involve penetration testing or any kind of security analysis. The security plan was left in the hands of the local election officials and their staff, the people with little or no training in computer security. But the great benefit to the vendors was that once the ITAs were firmly entrenched, the vendors could say that their system was "federally certified," and the person who hears that reads a lot more into it than it really deserves.

Furthermore, the ITA testing environment is strictly controlled and very limited and in no way reflects the conditions on election day. The testing did not involve penetration testing or any kind of security analysis. The security plan was left in the hands of the local election officials and their staff, the people with little or no training in computer security.

Mae Churchill was aware of the dangerous consequences of having LEOs, with no real experience in computer security, designing and implementing a security plan. And she told the FEC so in writing. But even if somehow the FEC did not ever receive any warnings from Churchill or others, they were in a position to be well aware of the situation at the local level when the standards were being developed. But apparently they were willing to trust, to blindly trust, that the vendors and LEOs could deal with security issues in private, with no official oversight, and with no outside review of the security plan by a genuine and independent computer security expert.

What we have here is a colossal misjudgment on the part of the FEC which, along with the lack of regulation of the voting system industry, and the lack of transparency and accountability—to name only *a few* of the missing elements—resulted in an electoral system run on the honor system when it came to extremely critical aspects of an election. And to this day, many critical aspects of elections are basically an elaborate honor system run by insiders who blindly trust each other and who become extremely defensive when their hidden powers are questioned. This charade continues because it can. It's a multi-level don't ask, don't tell kind of situation. And if you think that Wall Street is all-powerful in the way it has been able to successfully block genuine financial reform, from my experience their clout is second only to that of the political forces blocking genuine, comprehensive election reform. Enough said.

COOK Report: But didn't California do a more thorough review of their systems?

Waskell: Yes, they did. California and Ohio conducted a thorough review of voting systems in 2007. I'm referring to California's Top To Bottom Review (TTBR) <http://www.SoS.Ca.gov/elections/elections_vsr.htm> called for by Secretary of State Debra Bowen and Project EVEREST (Evaluation and Validation of Election Related Equipment, Standards and Testing) called for by Ohio Secretary of State Jennifer Brunner. <http://www.sos.state.oh.us/SOS/(X(1)A(-Pp5DUXoygEkAAAANDc3YTYyYmMtNzBhNi00ODY3LWIxNmQtY2I3ODViZGEwOTll11gGt6_Gmu8tp_NT532q78ROUf41)S(l5rck2embhcx3k45r5vpgd45))/Text.aspx?page=4512&AspxAutoDetectCookieSupport=1> Both secretaries of state received awards for doing this ground-breaking work. Both of these reports were devastating. They contain hundreds of

pages describing the details of the extensive flaws, vulnerabilities and inadequacies that were found in the voting systems that were reviewed. *All of these flaws were missed by the ITA testing process.* And the California TTRB wasn't talking about only minor or utterly banal flaws, but serious *systemic flaws* that were an integral part of the design of the voting system. For example, regarding one of the voting systems it was noted that "Virtually every important software security mechanism is vulnerable to circumvention."

An historical note. After Terry Elkins and Michael Shamos testified before the Texas House Committee on Elections in the 1980s, state law was changed to give the Texas Secretary of State the power to re-certify voting systems. But unfortunately, the lawmakers in Austin failed to fund such an endeavor so there has been no top to bottom review of voting systems in the Great State of Texas.

Over 40 years after computers were first used to count votes, two out of the 50 chief election officials in the United States of America finally got up the political courage to ask for the first genuine and independent review of the voting systems that determine the winners in all local, state and federal elections. Two out of 50.

Now think about this. Over 40 years after computers were first used to count votes, *over 40 years later*, two out of the 50 chief election officials in the United States of America finally got up the political courage to ask for the first genuine and independent review of the voting systems that determine the winners in all local, state and federal elections. Two out of 50. And keep in mind that these reviews focused only on the vote-counting portion of the technology. They did *not* include a thorough review of any other part of the proprietary election management systems (or the absentee ballot processing software) that run our public elections. They did not include a review of chain of custody procedures or the effectiveness of the checks and balances and internal controls in place, or how transparent critical election procedures were, or how effective election monitoring was. Of course, all of these reviews would cost money and there simply isn't any available to get the jobs done. So we work with what we've got. I understand that. I just want your readers to have some idea of the scope of the tasks ahead on the election reform To Do list.

15. The Importance of Location

Living in Washington, DC from 1981 to 1999

COOK Report: Your living in the Washington, DC area must have had other advantages as you pursued your election work. How did this work in your favor?

Waskell: For starters, I had access to the Library of Congress, the FEC's Clearinghouse, and the Securities and Exchange Commission where I did research on the corporate filings of companies of interest. And during my never-ending public-awareness campaign, I was able to speak personally with people at public interest groups like Public Citizen and the national headquarters of the League of Women Voters (LWV).

By the way, the League told me that this issue was too technical for them...which was likely due to the way I was framing the problem at the time...more in terms of lack of standards, inadequate testing and certification, little computer expertise at the level and so on. The use of proprietary software didn't ring any alarm bells. I tried to educate the local League in Reston about the issues but didn't get anywhere either.

But ten years later the League is now actively involved in several different aspects of election reform at the national and state level. One of their most interesting projects from my point of view is what the LWV of California did at its May 17, 2009 state convention, i.e. adopt a Election Transparency Resolution which supports the principle of transparency in all election procedures. The LWV of the Monterey Peninsula created the Resolution <http://www.lwvmp.org/election-integrity-resolution.pdf> and was instrumental in getting it passed at the state level. The Resolution reads in part: "Election transparency means full public access to all election procedures in order to allow meaningful verification of ballot handling, tabulating, auditing and related elections records." Isn't that great! It's simple and direct. I love it.

The next step is to get this Election Transparency Resolution passed and added to the SARA Resolution (that our voting systems be Secure, Accurate, Recountable and Accessible) at the LWV national convention. The giant step for the rest of us is putting this revolutionary resolution into practice—which will happen over many, many years I expect—so we can finally experience the reality of full public access to election procedures and meaningful verification of election results taking place routinely in all elections. It ain't gonna be easy. The high road is always the hard road. But it's essential that we as a nation accomplish this gigantic task if we ever expect to genuinely restore and maintain public trust in elections. This is going to be much harder to do than putting a man on the moon because the strong political will that was behind that outer space project is totally lacking in this more down to earth project.

Another advantage to living in the DC area was that I was able to attend Congressional hearings on elections over many years. With a few exceptions, the topics covered at these hearings were about increasing turnout (voter participation), overseas voters, pollworkers, the "Motor Voter "Act (National Voter Registration Act of 1993) and voter registration databases. And occasionally accessibility. I attended many of the Senate and House hearings and always had my little information kit

with selected handouts and reports regarding computer security, flawed equipment and proprietary vote-counting software. I gave the materials to a few of the committee members and/or the head of the committee, and I asked if I could call their office for a follow-up...which I did. But there was no genuine interest and basically I got the brush-off. I continued to attend hearings and take my information kit, but I began looking for people in the audience who might be interested since it was clear that the committee members had their plates full with other election-related issues closer to their hearts.

I also approached other members of Congress on Capitol Hill who were not on the election-related committees and subcommittees. I got no response—with two exceptions. First, a staffer from Senator Ted Kennedy's office actually had a conversation with me and it was clear he had at least glanced at the materials I had given to the Senator. But nothing happened after that. Second, I had no problem at all getting an appointment and meeting with a staffer in the office of Jim Trafficant, the Ohio congressman who subsequently went to jail for racketeering, bribery and extortion. I left this meeting and was half-way to Cloud Nine. I practically skipped down the long, musty-smelling hallway of the old Russell Office Building and I found it hard to resist sliding down the wide handrail of the large staircase. "This is fantastic!" I thought. "Someone in Congress really listened and said that his office would support the need for voting system standards." Silly me. I was still politically clueless in many ways. Swimming with the sharks that I mistook for dolphins.

16. Post-1988: Computer Professionals for Social Responsibility Picks Up the Ball

COOK Report: What were you doing after 1988?

Waskell: I was pretty much the only voice actively talking in public about these invisible problems and that made it difficult to get people to listen. But there was one organization that this issue had resonated with and that was Computer Professionals for Social Responsibility (CPSR). They were a new organization founded officially in 1983 and they naturally wanted to expand. I came to know people in Washington, DC who wanted to start a local CPSR chapter and elections seemed to be an issue that the new chapter could rally around. David Girard and Paul Hyland are two names I remember from that time and they worked very hard to bring the DC Chapter to life. I joined CPSR and became active in the DC Chapter. Mae Churchill had also joined CPSR around this time and was trying to get funding through them for election-related projects, including help for Elkins to continue with her election research.

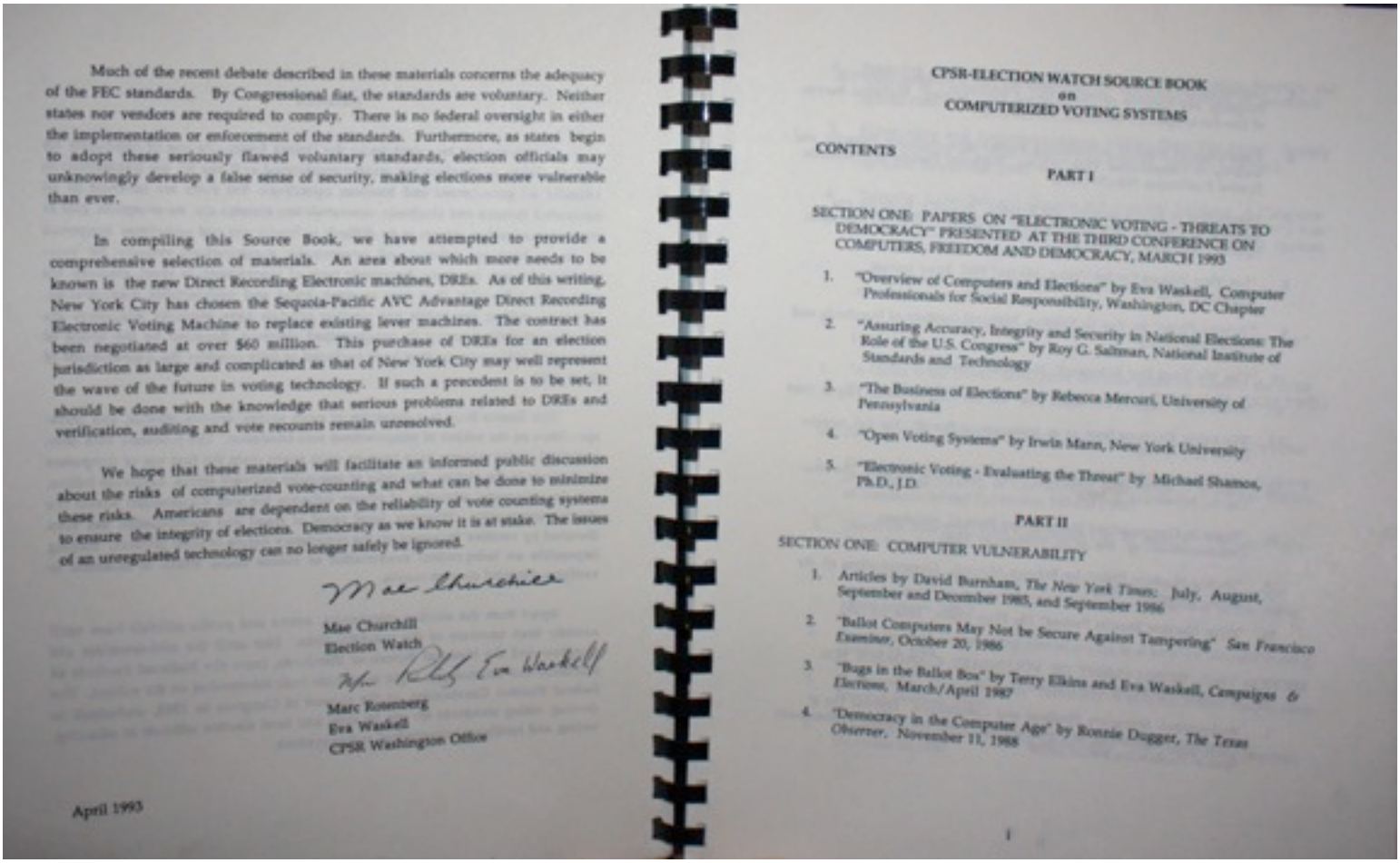
And I need to mention that Erik Nilsson and Bob Wilcox of Portland, Oregon ran CPSR's Computers and Elections project for many years during which they advised the FEC on voting system standards and election security. In April 1994, they also helped South Africa prepare for its first multiracial elections.

For about ten years from 1989 to 1999 I was the volunteer director of the Elections Project for the Washington, DC chapter of CPSR. In that capacity, I spoke to groups of concerned citizens in Florida, Illinois, Maryland, Ohio, West Virginia and to CPSR Chapters in Palo Alto and Boston, Lance Hoffman's class at George Washington University and other smaller groups of concerned citizens.

I helped put together an inch-thick source book on computerized voting systems. In April 1993 I mailed copies of the source book to the 50 secretaries of state, and about 10-14 days later I started calling their offices. No one had read it, no one was interested.

I helped put together an inch thick source book on computerized voting systems. Sherri Alpert had gotten a good start on it and I compiled the remaining materials, took the finished product to a printer to be copied and bound—entirely at my own expense. The source book was the idea of Mae Churchill at Election Watch and she worked on it in conjunction with Mark Rotenberg at CPSR's national office in Washington, DC.

In April 1993 I mailed copies of the source book to the 50 secretaries of state, and about 10-14 days later I started calling their offices to see if anyone had read it. I was looking for their feedback. That's when another light bulb went off in my head. These people simply weren't interested.



Much of the recent debate described in these materials concerns the adequacy of the FEC standards. By Congressional fiat, the standards are voluntary. Neither states nor vendors are required to comply. There is no federal oversight in either the implementation or enforcement of the standards. Furthermore, as states begin to adopt these seriously flawed voluntary standards, election officials may unknowingly develop a false sense of security, making elections more vulnerable than ever.

In compiling this Source Book, we have attempted to provide a comprehensive selection of materials. An area about which more needs to be known is the new Direct Recording Electronic machines, DREs. As of this writing, New York City has chosen the Sequoia-Pacific AVC Advantage Direct Recording Electronic Voting Machine to replace existing lever machines. The contract has been negotiated at over $60 million. This purchase of DREs for an election jurisdiction as large and complicated as that of New York City may well represent the wave of the future in voting technology. If such a precedent is to be set, it should be done with the knowledge that serious problems related to DREs and verification, auditing and vote recounts remain unresolved.

We hope that these materials will facilitate an informed public discussion about the risks of computerized vote-counting and what can be done to minimize these risks. Americans are dependent on the reliability of vote counting systems to ensure the integrity of elections. Democracy as we know it is at stake. The issues of an unregulated technology can no longer safely be ignored.

Mae Churchill
Election Watch

Marc Rotenberg
Eva Waskell
CPSR Washington Office

April 1993

CPSR-ELECTION WATCH SOURCE BOOK
on
COMPUTERIZED VOTING SYSTEMS

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No one in the office had read it and no one returned my calls. When I told Mae Churchill what was happening she couldn't understand why any secretary of state *wouldn't* be interested. It's their *job* to be responsible for and knowledgeable about the election technology in use in their state. State law designates these people as the chief election officer. But I had a theory about the non-responsive state election officials. The source book was really criticizing them for falling down on the job by saying in effect that their office had certified defective voting equipment, and pointing to specific vulnerabilities and the lack of security of the electronic voting systems in their state. This was not something any secretary of state wanted to hear.

Another thing I remember in connection with the distribution of the source book is that when I went down to the CPSR DC office to do the actual mailing, Mark Rotenberg was there working at his desk over in a corner. As I began to stuff the source books into priority mail envelopes, he opened one of his desk drawers, pulled out a sheet of stamps and gave them to me to use for the postage. I was super surprised, *and* I was very pleased, because I'd been volunteering for so long that I automatically expected that I'd have to pay for postage myself. But while elections had become my magnificent obsession, I was also faced with the need to try to earn a living to keep a roof over my head. At the same time, I wanted to continue with my own investigations, research, interviews, and pro bono consulting. The education process was never-ending.

COOK Report: Did *The New Yorker* article help at all?

Waskell: Yes, it did. I frequently pointed people to it as an introduction to the topic and to give them some history and context for what I was talking about. It made me seem less crazy. Or so I thought.

Many election officials I talked with referred derogatorily to Dugger's article as alarmist, and they blithely and reflexively dismissed what he wrote with a scowl. "We have checks and balances in place." "Ronnie Dugger has never run an election." "It's all very theoretical." "The pre-election logic and accuracy test ensures that the software is counting correctly."

But while a lot of people I talked with had read the article, it appeared that nothing much was changing in the election community that still largely had its head in the sand. As far as I could tell, they were in a state of total denial and/or outright hostility. Many election officials I talked with referred derogatorily to Dugger's article as alarmist, and they blithely and reflexively dismissed what he wrote with a scowl. "We have checks and balances in place." "Ronnie Dugger has *never* run an election." "It's all very theoretical." "The pre-election logic and accuracy test *ensures* that the software is counting correctly." "There's never been any proof that votes have been manipulated in an election." "Our software is *certified*." And the vendor Business Records Corporation, one of the forerunners to the present day industry giant Election Systems & Software, was quoted in a news article saying that Dugger's *New Yorker* article was "hearsay " and "not valid." After all, "it's 8 years old."

Unbelievable responses! Especially considering that as I talked to many election officials, I very quickly learned that almost all of them had not read any of the transcripts from any of the lawsuits, so they were not at all familiar with what the plaintiffs' computer experts had uncovered. There was zero curiosity about all of this expert testimony. Absolutely zero. A few years back there was a big hullabaloo at a public hearing in Sacramento because state officials had learned for the very first time that the audit trail of one of the vendor's voting systems could be turned off. And they were rightly very concerned. I thought at the time...well, you can probably guess what I was thinking. No need to elaborate.

Now I recognize that it's hard to hear extensive, credible and public criticism of our election system. Let's be perfectly frank. It's very disturbing to be told that the emperor has no clothes...when the emperor is Uncle Sam. I get that. But I'm also told that I live in a democracy. And as philosopher Sidney Hook once said—I'm paraphrasing because I don't remember the exact quote—The difference between a dictatorship and a democracy is that a democracy can uncover the truth about itself, and live with it. I seriously think that the jury is still out on whether or not American democracy qualifies for this definition as far as elections are concerned.

COOK Report: If you were doing all of this volunteer work for CPSR, how did you support yourself?

Waskell: With difficulty. At times with great difficulty. My earnings from science writing and public speaking weren't especially lucrative and there were a lot of costs associated with my election education and research. I frequently had monthly phone bills of hundreds of dollars from talking with elections officials all over the country who, by the way, gave generously of their time. Some of the

court transcripts cost over $800. Then there was all of the copying of election–related materials I was doing and paying for postage. I had put myself through college waiting on tables and so I worked banquets when I had to, especially around holidays. And I did temp office work, of course.

COOK Report: Did the Texas Attorney General's office pay you?

Waskell: Yes, I got paid for the consulting work I did for the investigation of the Dallas election. Not that much, but it was something. On the other hand, my work as a consultant for the Florida Business Council was pro bono, but they did pay for my travel expenses. I ran the figures once, and between 1985 and the 2000 I made about $3000 from all of my election work. And that's an estimate on the high end.

17. The 1990s: A Leap into Full-Time Work on Elections

Waskell: In 1990 I began working full time as a program director for TeleStrategies, Inc. in McLean, Virginia where I designed and put together conferences on telecommunications technical issues and business opportunities. I was at TeleStrategies when the National Science Foundation lifted the Acceptable Use Policy governing the NSFNet, a move that made the commercial Internet possible. Jerry Lucas, the founder and President of TeleStrategies, saw the potential for expanding the company's conference topics to include business opportunities on the Internet. None of the other program directors were interested in doing a conference "on computers" but I jumped at the opportunity. Lucas let me have free reign to do research and design the programs. I loved it!! Everything about the Internet was new to me. It was another frontier to explore. And that's how I met you, Gordon. I invited you to speak at one of the first conferences TeleStrategies did on the Internet. As I recall, you got good evaluations from the audience and the rest is history.

Unlike the programming job at Datatronix, where sometimes the workweeks were 60 to 80 hours, Jerry Lucas genuinely felt that his employees should have a life of their own and that family was important. So except for the very long days when the conferences took place, I was able to continue doing my election homework on evenings and weekends. There was *always* something new for me to learn about elections, but my daytime work remained pretty much the same, i.e. designing conferences and often moderating panels.

I was at TeleStrategies for four years and resigned in May 1994. I had saved some money, even bought a small house in Reston near Lake Anne, and planned to devote myself full time to election work. I began working on a book called *A Citizen's Guide to Elections and Computerized Voting*. I remember sending a rough draft to Peter Newman to review. He liked it. Told me not to dumb it down. And around this time, I started working on model legislation and a voter bill of rights with several people in my network, including David Stutsman in Elkhart, Indiana and Peter Theis in McHenry County, Illinois.

***I began working on a book called* A Citizen's Guide to Elections and Computerized Voting. *And to be sure I covered all of the outreach bases, I worked on a screenplay, a political thriller about rigging an election with vote-counting software. Maybe this would capture the public's attention. I started to see* a lot of movies.**

And to be sure I covered all of the outreach bases, I worked on a screenplay, a political thriller about rigging an election with vote-counting software. Maybe this would capture the public's attention since all of my other public awareness efforts hit a brick wall. I started to see *a lot of movies.* I

rented piles of DVDs of my favorite political thrillers and other movie classics and analyzed them to death. I read books and the trade magazines, and I attended a seminar on making movies because I wanted to understand the industry. I followed a few of the best screenwriting blogs and had two top Hollywood script consultants, Linda Seger and John Truby, review my work. They made excellent suggestions for improvements and both thought that my idea was original. I've got several treatments (one of them is 50 pages long) that I registered with the Writers Guild of America, West. The next step was to write the actual dialogue. But by that time I had run out of money and returned to temp work. It was so frustrating to have to put all of these projects on hold and go back to the grindstone.

COOK Report: Didn't you talk with 60 Minutes around this time?

Waskell: Yes. I spoke with producer Bob Anderson on September 23, 1996 at the 60 Minutes office on M Street in Washington, DC. He flew down from New York City and we talked for a several hours. He got a full overview of the problems and asked excellent and thoughtful questions. He told me he I explained the issues very clearly and he seemed excited about what he heard. I also told him about the post-election events in New Orleans that Susan Bernecker, a Republican candidate for the Jefferson Parish City Council in 1995, had experienced and I suggested that he speak with her. Bernecker had a producer friend of hers videotape her post-election testing of Sequoia's touchscreen machines in the county warehouse. She touched the button next to her name on the ballot, but the name of her opponent appeared in the small LED screen at the bottom. (This type of vote-flipping is still seen today and it's explained as a calibration problem with the screen.)

I first heard about Bernecker and her videotape from Douglas Kellner, a member of the New York City Board of Elections who was strongly opposed to the City's proposed acquisition of an enhanced model of the Sequoia touchscreen voting system used in Jefferson Parrish. Kellner had seen Bernecker's tape and was concerned about the implications of what he saw.

But on October 2 he called to say that 60 Minutes wasn't going to do the story. He said he agreed with me philosophically but there was no smoking gun. I tried to persuade him that it's impossible to get a smoking gun in any election and that's the real story. That's how dysfunctional our election system.

Based on what I told Anderson about the election in Louisiana and Bernecker's videotape, which I had personally viewed, he subsequently flew to New Orleans and interviewed Bernecker. But on October 2 he called to say that 60 Minutes wasn't going to do the story. He said he agreed with me philosophically but there was no smoking gun. I tried to persuade him that *it's impossible to get a smoking gun in any election and that's the real story.* That's how dysfunctional our election system is.

COOK Report: What do you mean by that?

Waskell: Imagine a bank telling you that it's impossible for them to get a smoking gun, i.e. im-

possible to get hard legal evidence regarding any kind of alleged embezzlement. "I'm terribly sorry, but the structure of the banking system isn't set up to uncover that sort of thing. We can't always tell if funny numbers are an innocent clerical error or deliberate cheating. And the reality is that sometimes numbers that don't add up are just...a mystery! They're simply unknowable. We leave it at that." Then the banker writes something on a piece of paper and you read it in silence. "Don't ever repeat this or I'll have to kill you, but we're pretty sure that insiders in the banking industry and all of our employees would *never* do anything evil. Never in a million years." This attitude in the world of banking would be considered reckless and preposterous. And yet it's the dominant mindset in the world of elections.

COOK Report: So you're saying that it's impossible to obtain hard evidence of vote rigging that would stand up in court?

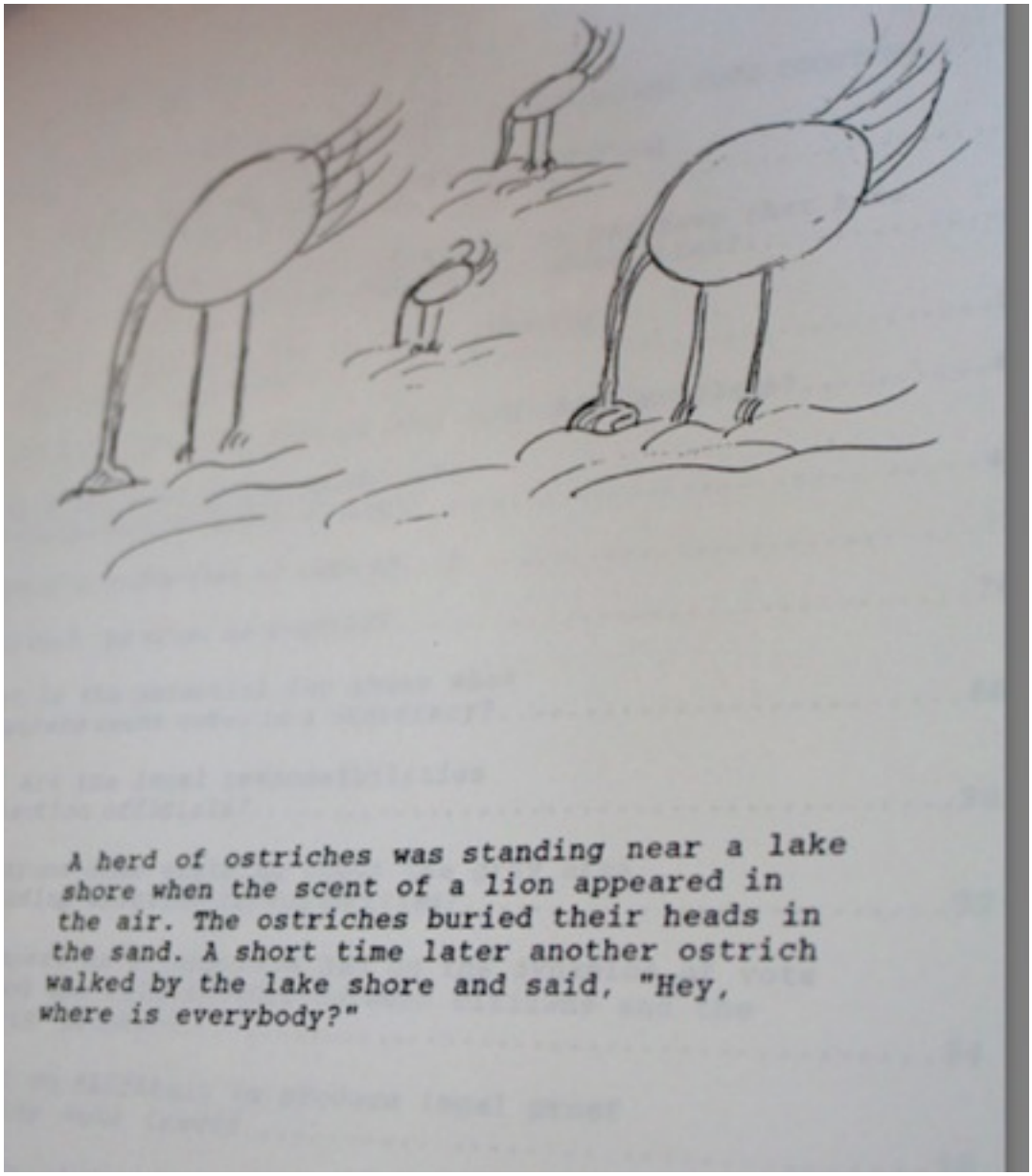
There's never been any legal proof or hard evidence of vote rigging because it's impossible to get your hands on it. I will show that this impossibility is really an indictment of our election system, not a vindication of it. As I just said, try to imagine anyone in the world of banking saying that it was impossible to obtain proof of embezzlement. Banks can and do catch people cheating their system and they have the evidence to prove it. This does not and cannot happen in the world of elections.

Waskell: Yes, I am. I'm going to write an essay that explains this in detail. It's something I've thought about for a very long time. It's the one conversation stopper that I've consistently encountered for 25 years and it's a factually correct statement—There has never been any proof of vote rigging in an election. There's never been any legal proof or hard evidence of vote rigging because it's impossible to get your hands on it. I will show that *this impossibility is really an indictment of our election system, not a vindication of it.* As I just said, try to imagine anyone in the world of banking saying that it was impossible to obtain proof of embezzlement. Banks can and do catch people cheating their system and they have the evidence to prove it. This does not and cannot happen in the world of elections. Enough said.

Back to my encounter with 60 Minutes. When producer Bob Anderson turned down my story idea, he said that if I had another story in mind to give him a call. I did give him a call again in December 2003 with an election story idea but it was turned down again. His assistant left a phone message saying that "a piece will not be going on the air about election problems." And that was that.

I also approached several other television news programs after 60 Minutes turned me down. But no one was interested. "It's too complicated. It's difficult to simplify." "No smoking gun." "What they did was goofy but it was legal." Dan Rather was very interested at first and he knew about Bernecker's situation in Louisiana but eventually he said no. One producer told me that "November is an election month but we can't run it then because that's sweeps month." Another producer admit-

ted that "From a civic standpoint, we feel lousy about not doing it, and personally it's scary as hell but..." Needless to say, no election story ran on these yes-but networks.



This is a page from the 1997 draft of Waskell's book. One could say that it represents the general strategy of the election community in dealing with the repeated warnings about the flaws and vulnerabilities in the electronic voting systems used in America's public elections.

18. In 1997, Jenny Appleseed Writes a Planning Grant Proposal.

COOK Report: I remember you were also trying to get a grant to establish a clearinghouse of information for citizens around this time.

Waskell: Yes. In September 1997 I wrote a planning grant proposal for the creation of a nonprofit resource and information center for computerized elections. The center would also train a grassroots network of citizen election watchdog groups. I always had several irons in the fire at a time because I never knew how or where or with whom any of my ideas would take root. I often thought of myself as Jenny Appleseed. Planting seeds of curiosity and concern which would hopefully lead to an eagerness to learn more, and then to act locally on what they learned.

To be really productive, I needed to be free to go wherever my curiosity took me or wherever I needed to fill a gap in my election knowledge. The downside was that my resources were extremely limited and I could only go so far down each trail.

Looking back now I see that I wasn't too smart about how I went about obtaining funding. There were probably large foundations that I should have approached but didn't. Having a mentor of some type would have been a great help. So obtaining funding to establish this type of nonprofit turned out to be impossible. And no one was able to see that election administration had serious problems. "Why haven't I read about it in the paper?" was the most common response. In retrospect, however, it may have been a good thing I didn't get a nonprofit organization going at that point because it would have focused my energies more narrowly and my independent research would have been cut drastically. To be really productive, I needed to be free to go wherever my curiosity took me or wherever I needed to fill a gap in my election knowledge. The downside was that my resources were extremely limited and I could only go so far down each trail. It was extremely frustrating. But because there never was enough money, I was forced to become very resourceful. And to maintain my sanity I had a file called To Do Next. I always felt that when I could finally do the things in this file, there was going to be *hope,* even a sliver of hope*,* for exposing all of these invisible problems. However, the list of items in the To Do Next file developed a life of its own and became a list without end.

COOK Report: Wasn't one of the things on your list a project like the Humboldt Transparency Project but with punch cards instead of optical scan ballots?

Waskell: Yes, that was the one project during this time I felt very bad and very sad about abandoning. You probably remember it because I told you it was something I wanted to do, and several months later as I recall, you said you had talked to Einar Stefferud about it and Stef knew someone

who might be interested in helping me. See, your connectivity genes once again automatically sprung into action.

COOK Report: And it turned out to be a good match, right?

Waskell: Yes, it was. In December 1997 I met with Stef at an Internet Engineering Task Force meeting in Washington, DC and explained what I had in mind, i.e. publicly disclosed and inspected recount software that could be used by a county to independently verify the election results generated from the proprietary vote-counting software. Stef liked the idea and commented that it should make election officials happy to see one more nail in the coffin of doubt about the accuracy and integrity of election results. He introduced me to Hugh Daniel, a techie who was heading a project to create a version of IP/SEC for Linux. Daniel was a self-described Boy Scout (He liked to do good things.) with an interest in elections and he immediately wanted to help. He had many good ideas I hadn't thought about and he offered to host a website for the project which I considered calling Election Watch: A Voice for Citizens.

Here's how it would work. On election night the punch card ballots would be run through the county's card reader and then immediately run through a public card reader which was attached to a dedicated PC with no hard disk, no operating system like DOS or UNIX, and about ten lines of publicly inspected software, written under a general public license and available for free, that did nothing but look for punched holes in the ballot and produce a printout of how many times it saw a vote for each punch position. So for a 228 position punch card ballot, the printout would have two columns of numbers. The first column would have numbers from one to 228. The numbers in the second column would represent the number of votes for the corresponding punch position. Several copies of the printout would be generated and distributed on election night to the political parties, citizen observers, a third party like the county judge, and the press. (I was still hoping for a miracle, i.e. that the press would get interested.) The entire operation would be videotaped. The whole idea was to have some kind of public control and public oversight, not to mention independent verification, of the secret and invisible vote counting.

COOK Report: Did David Stutsman know what you were up to?

Waskell: Yes. I kept him in the loop as the project moved forward for about five months and then it came to a halt. There was a delay on Daniel's end after I sent him the specs for the card reader, and I needed to start working full-time to pay the rent...again. I always hated having to drop my real job and return to temp work and banquets. But the upside was that frequently when I was doing something totally unrelated to elections, like answering phones as a receptionist at a law firm, that's when I had some of my best ideas and when some of the pieces of the larger jigsaw puzzle fell into place in my mind. Integration. That's what it was.

19. Flashback

The fallout from David Burnham's 1985 New York Times *article*

COOK Report: How would you characterize the July 1985 Burnham article?

Waskell: In a word...ground-breaking. It was the first in-depth article in the mainstream press about these very important topics and it was critical in raising the public's awareness—albeit only temporarily—regarding the vulnerabilities of proprietary voting systems. Prior to this article, anyone with *legitimate complaints* about the vulnerabilities of trade secret vote-counting software or the inadequacies of the pre-election logic and accuracy testing or the weaknesses of the checks and balances was either totally ignored and/or marginalized or *dismissed with official claims that no reporter ever bothered to substantiate.* I would also note that this general dynamic continues unabated to this very day...with a few notable exceptions.

My hope back then was that Burnham's article would help jump-start a long overdue public conversation about how public elections are managed and how the vote counting process is concealed. That never happened. As I said before, the initial and speedy reaction to this one article was largely denial and defensiveness. And even though there were investigations that skimmed the surface of the problems, a few reports that were anything but hard-hitting, and a Markle Foundation-sponsored workshop on Captiva Island in Florida which I'll talk about shortly, the immediate impact of the complete series of Burnham's articles on the election community was minimal to non-existent and the long-term impact has been nil. Dugger quoted Burnham in the 1988 *The Texas Observer* article. "Burnham said mournfully that his work 'fell like a goddam rock.'" But the articles did fuel the fire underneath a handful of us election integrity diehards.

By the way, it was Lance Hoffman's observation in his 1987 report on the Captiva Island workshop that Burnham's July 1985 *New York Times* article was the thing that really set the stage for what decades later would become the election integrity movement.

COOK Report: What else happened as a result of the July 1985 article?

Waskell: The California Attorney General's office opened an investigation. I went to California and spoke to Steve White, the chief assistant Attorney General in charge of criminal matters. I told him everything I knew about the lawsuits and the proprietary vote-counting programs. I gave his assistant the contact information for many of the people I had talked with. White's staff also talked with David Stutsman about his lawsuit. And at least four other states started investigations or took other actions that addressed problems with voting equipment in their states.

The Markle Foundation sponsored a workshop that was held on Captiva Island in Florida in February 1987. Lance Hoffman, a professor of computer science at George Washington University, got the initial grant from the foundation, organized the meeting, and wrote a report entitled *Making Every*

Vote Count: Security and Reliability of Computerized Vote-Counting Systems that was originally published in November 1987 <http://www.seas.gwu.edu/~lanceh/making.pdf>. I don't remember that Hoffman ever contacted me while he was setting up the meeting.

One of the real strange things about the final report, from my perspective, was that one of the focus papers was entitled *The Citizen and Political Scientist Perspective*. The paper was written by a political scientist at American University who did a good job when he wrote about elections from the academic perspective of a political scientist. But what he wrote about "the citizen" perspective from his perspective as a citizen was absolutely positively not what I, or any of the informed citizen that I knew, would have written about. The one person out of the 28 workshop participants who had the closest thing to a citizen perspective was David Stutsman, and the report didn't include a focus paper by him.

Probably the most frequently repeated quote from the Captiva workshop came from Willis Ware, a senior scientist at the RAND Corporation whose paper was entitled *A Computer Technologist's View.* Ware wrote, "There is probably a Chernobyl or a TMI waiting to happen in some election, just as a Richer-8 earthquake is waiting to happen in California." I would say now, and I said then, that there are and have been *many* election Chernobyl's of various intensity going on all over this country for decades at the county and state level, not to mention the 1980s lawsuits in Indiana and West Virginia. But no one paid any serious attention to these local tremors. They were casually and consistently brushed off as sour grapes or the desperate measures of sore losers. (*Most, but not all*, of this was indeed sour grapes.) Florida does not, and nor did it ever have, an exclusive claim to being earthquake territory, as David Remnick seemed to imply in his Talk of the Town article on pages 35-36 in the December 4, 2000 issue of *The New Yorker*. And what made Florida's November 2000 election a Chernobyl on a grand scale was that the world, including Vladimir Putin in Russia, was watching our electoral dysfunction and the Supreme Court's intervention, and has since publicly thrown what it saw back in our face.

Willis Ware of RAND wrote in 1987, "There is probably a Chernobyl or a TMI waiting to happen in some election, just as a Richer-8 earthquake is waiting to happen in California." I would say now, and I said then, that there are and have been many election Chernobyl's of various intensity going on all over this country for decades at the county and state level.

David Burnham, Roy Saltman and Michael Shamos were at the Captiva workshop along with many local and state election officials, vendors and a few other insiders. Larry Slesinger, a program officer from Markle, was also present. Slesinger had visited me in Reston prior to the workshop and I showed him my files, including a bunch of court documents. Although there was some correspondence between Terry Elkins and Markle, to the best of my knowledge, I don't believe that anyone from the foundation ever talked with her at length or reviewed her research in depth. This was very unfortunate because she was the person with the most intimate knowledge of the numbers that wouldn't add up and what went wrong with the nuts and bolts of the Dallas City election. And she

had a lot of hard questions to ask that could have been openly discussed by people who knew a lot about elections. It was only one of an endless string of missed opportunities.

I thought it was ironic that Elkins and I, who started this whole thing off with a first-of-its-kind combination election audit and research were not invited to the workshop. In hindsight, it was an ominous sign of things to come, i.e. where ordinary citizens were marginalized and not given a seat at the table.

I thought it was ironic that Elkins and I, who started this whole thing off with a relatively extensive and first-of-its-kind election audit and first-of-its-kind election research were not invited to the workshop. In hindsight, it was an ominous sign of things to come, i.e. where ordinary citizens were marginalized and didn't have a seat at the table where they could candidly voice their concerns when election reforms were discussed. Other than a few exceptional outsiders, the Captiva workshop was a gathering of insiders from the federal, state and local levels who sat down with the most powerful election insiders of all—the vendors. The workshop came up with some very good recommendations for improvements, most of which were unfortunately ignored, but it didn't really seriously address one of the core problems, i.e. the privatization of elections. What would have really made a difference at the time was support for a citizens' workshop. Such a group would surely have written quite an eye-opening report! And focus papers from individual citizens around the country that I knew would have been very different from "the citizen" perspective we see in the workshop's final report.

COOK Report: So Burnham's articles did have some impact?

Waskell: Yes, they had an impact on citizens who were struggling to get the word out about the systemic problems in our election infrastructure. But the bottom line was that the articles did *not* have an impact on improving the quality of election administration. Public awareness is one thing, concrete action is quite another.

COOK Report: Speaking of public awareness, wasn't there a conference at Boston University that you helped put together?

Waskell: Yes. It was the First National Symposium on Security and Reliability of Computers in the Election Process. Shortly after Burnham's article in July 1985 was published I got a call from Kurt Hyde, a DEC database programmer. Hyde was from New Hampshire and was a friend of William Gardner, the New Hampshire Secretary of State. Hyde had been interested in the flaws in voting systems for some time. He had his computer science students at Rivier College in Nashua conduct a security assessment of the Shouptronic touchscreen voting system.

By the way, Hyde also discussed in 1985 the idea of having a touchscreen voting system produce a paper ballot that would be passed under a transparent window for the voter to review and approve before casting the ballot. To protect voter privacy, the paper ballots would be cut as they were cast and not be on a continuous sheet of paper. And the paper ballot, of course, would be the definitive

ballot of record. In fact, Terry Elkins, David Stutsman, Melvin Armstrong (one of Stutsman's computer security gurus), myself and several other people in the 1980s talked about having a touchscreen system print a paper ballot as an audit trail. If you stopped to think about it, the basic idea was fairly obvious.

COOK Report: And this was long before many people began thinking that Rebecca Mercuri had introduced the concept.

Let's just get rid of the inauditable touchscreen systems altogether. You can't trust a machine that audits itself. Would the IRS let you audit yourself?

Waskell: Yes. Mercuri refined the basic idea something like Kurt Hyde had done, but it wasn't her original idea. Anyway, now I think that a voter verified paper audit trail on a touchscreen system is simply a bad idea. And I thought it was a terrible "solution" when it was implemented soon after November 2000. Let's just get rid of the inauditable touchscreen systems altogether. You can't trust a machine that audits itself. Would the IRS let you audit yourself?

COOK Report: So you and Kurt Hyde began to talk over the next few months after Burnham's first article appeared.

Waskell: Yes. I filled him in on the situation in Texas and the lawsuits I had researched. During the course of our conversations, it turned out that the two of us had independently come up with the idea of putting together a conference on computer security and elections. So we decided to join forces and make the conference a reality.

New Hampshire Secretary of State Bill Gardner attended and so did Bruce Sherbert from the Dallas County election department. The speakers were Terry Elkins, Kurt Hyde, Bill Gardner, Susan Kesim (a computer security expert who had worked with Stutsman), David Stutsman and myself. There are VHS videos of the symposium and eventually I'd like to put them online. [**Editor**: These videos are a part of Waskell's archives that are awaiting the investment necessary to digitize, catalogue, and preserve them and make them accessible. This unique collection can help us understand the nature and the history of this policy disaster, and that understanding can give us hope that the problem might be addressed.]

COOK Report: Are there any other people or reports that were circulating at this time that we rarely hear about today?

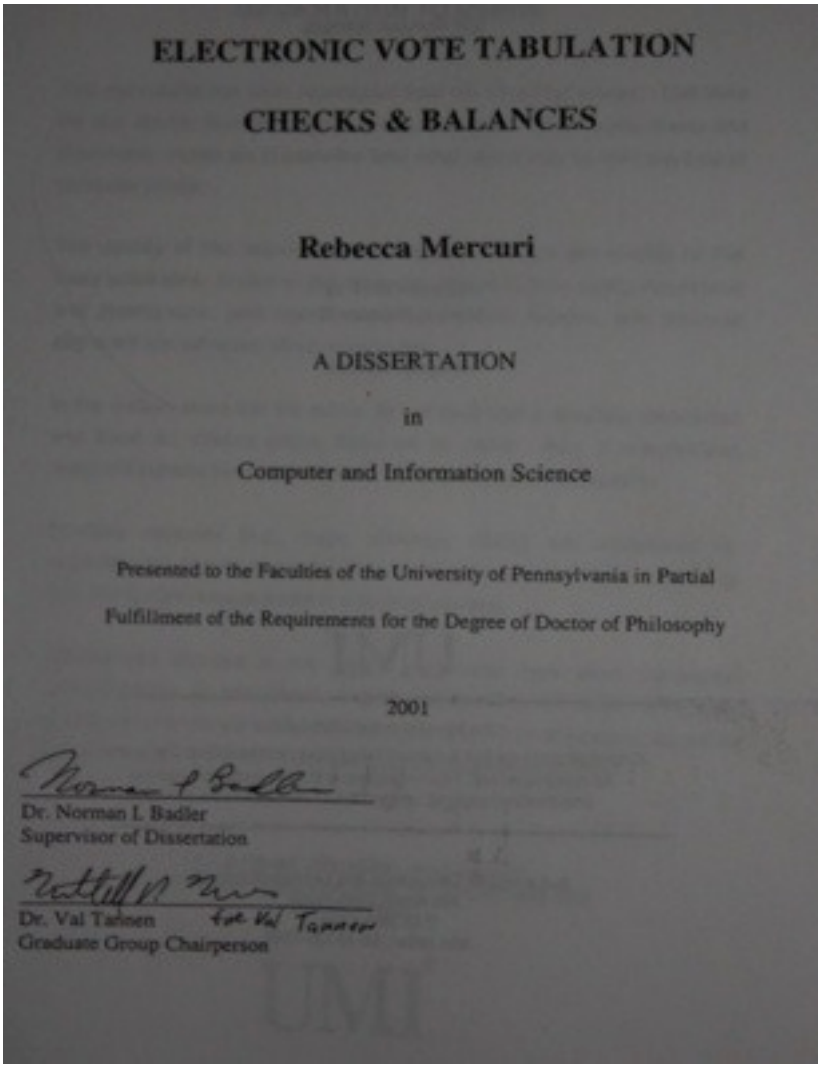
There was a report that came out of Los Angeles in 1970 that talked about the extensive problems with the new punch card system that the city had purchased to replace its antiquated lever machines. Los Angeles is a bellwether of sorts because it's the largest jurisdiction in the country and often sets the trend for where election technology is headed.

And in the fall of 1988, CPSR published two special reports on computing and elections <http://cpsr.org/prevsite/publications/newsletters/old/1980s/Fall1988.txt/>. One was written by

Erik Nilsson and Bob Wilcox of CPSR/Portland. The other report was by Election Watch and was based on a longer paper, *Ensuring the Integrity of Electronic Elections* by Howard Jay Strauss and Jon R. Edwards, both at Princeton University and computer scientists for Election Watch. At one point in this 1988 report, the following question was asked: "How much worse can it get?" How much? You can't possibly imagine how much worse it's gotten!

Rebecca Mercuri and I were in contact during this time and Mercuri has remained active in the area to some extent <http://www.notablesoftware.com/evote.html>. I think it was probably Mae Churchill who told her about me and my work. I sent Mercuri news clips from time to time and she sent me articles and other election-related materials. I was happy when she told me that her PhD thesis at the University of Pennsylvania was going to be about elections. It's entitled *Electronic Vote Tabulation: Checks & Balances* <http://www.cis.upenn.edu/grad/documents/mercuri-r.pdf> and was published in 2001. In the preface, she explains how she first got involved with elections in Bucks County, Pennsylvania in June 1989.

But Rebecca Mercuri, Terry Elkins, and Howard Strauss were not getting paid for any of their work at that time, as far as I know. I certainly wasn't. All of us were volunteering our efforts as a labor of love because we were deeply troubled by what we observed. I think this may be one of the reasons that Strauss, who had written several good reports criticizing both the voting systems and the voluntary standards, bowed out.



ELECTRONIC VOTE TABULATION

CHECKS & BALANCES

Rebecca Mercuri

A DISSERTATION

in

Computer and Information Science

Presented to the Faculties of the University of Pennsylvania in Partial

Fulfillment of the Requirements for the Degree of Doctor of Philosophy

2001

Dr. Norman I. Badler
Supervisor of Dissertation

Dr. Val Tannen
Graduate Group Chairperson

There were several other articles written in the 1980s and early 1990s but many of them were simply a shorter version of what was covered in the articles by Burnham and Dugger. And it seemed that everything fell into a black hole and had little effect on making any improvements in election administration. All the election community seemed capable of was defending the status quo and attacking their critics.

20. To the Victors Go the Spoils

COOK Report: Talk to me about some of the people you came in contact with once you began researching the lawsuits and became aware of the widespread problems with elections and voting technology.

Waskell: The first thing I noticed was that I was typically approached by someone who had lost an election or had been close to someone who lost. The winners of an election just want to take the money and run. To the victors go the spoils. And the victorious ones *always* want to put the election behind them as fast as possible. They're never that bothered by numbers that don't add up and they can forgive and/or overlook irregularities of any kind. They want to maintain their lead, at virtually any cost. The winners *never* ask probing questions to get at the facts. They don't care about the truth. They just want to win!!

And since there are no perfect elections, as everyone knows, there is always a list of flaws to choose from. The losers cherry-pick the flaw that can be manipulated to work in their favor. But after all is said and done, the bottom line is that election fraud and/or a rigged vote count only happens to the losers; it never happens to winners.

On the other hand, the losers in any election are going to be concerned about irregularities and may even want to identify as many as possible. They want to drag out the counting and the checking and the double-checking as much as possible. They want to look at everything. Well, not everything. They're really looking for the imperfection or flaw in the election they can be exploited to their advantage. And since there no perfect elections, as everyone knows, there is *always* a list of flaws to choose from. The losers cherry-pick the flaw that can be manipulated to work in their favor. But after all is said and done, *the bottom line is that election fraud and/or a rigged vote count only happens to the losers; it never happens to winners.*

So the losing candidates I talked with were usually convinced that the election had been stolen in one way or another. I tried to keep them focused on what they could actually *prove* and this is where the trouble began. For starters, they knew next to nothing about key election procedures and absolutely nothing about how to effectively monitor these critical procedures. They thought that the pre-election logic and accuracy test "proved" that the program would count votes correctly. Now there definitely and frequently were instances where it was established that human error was the culprit behind the irregularity in question. But frequently it was impossible to determine whether the irregularity or the funny numbers the losing candidates told me about were innocent error or deliberate fraud. Or the answers they were looking for were simply unknowable because of some flaw in the election system itself...like a missing critical record, broken chain of custody, a

minor and accidental violation of election law, the cartridge with the vote totals or the voting machine in question had already been returned to the vendor. Things like that.

But the election community has to realize that it's the loser, not just the winner, who has to be convinced that the election was fair and the counting was honest. *And even more important than that, it's the citizens, the members of the public who ultimately have to trust the election process. They have to be convinced*. And that's what changed after November 2000. Citizens who had been asleep at the switch got a pretty powerful wake-up call. And once they started looking more closely at the nuts and bolts of election administration, they found plenty of things they didn't trust.

COOK Report: Then was it only losing candidates that you had contact with?

Waskell: Mostly it was losing candidates, their attorneys, computer experts and friends; a few isolated academics who were looking closely at either punch card systems or computer security in elections in general; or a concerned citizen. In short, I heard from people when something went wrong in an election. No one ever called me to talk about how well or how smoothly an election went! Never.

COOK Report: So if you lost an election, all of a sudden you got interested in learning more about how elections were run behind the scenes.

You could be an election observer. But you were very, very limited in what you could actually observe. No one monitored chain of custody. The vote counting was done on a circuit board inside a computer so there was nothing to observe there.

Waskell: Right. And since there was no data or scientific research available, no college courses on election administration, and the General Accounting Office hadn't yet published one of the best overviews of elections, i.e. its October 2001 report, all anyone could do to learn about election administration was to start asking the LEO questions and do public record requests for a wide range of documents, including policy manuals. And you could be an election observer. But you were not only very, very limited in what you could actually observe, but any valid violations you reported just fell into a black hole. Nothing was done about them. And *no one* monitored chain of custody. The vote counting was done on a circuit board inside a computer so there was nothing to observe there. So much for public counting of votes. Many state laws, including California, say that *all* aspects of the election are open to the public. That's the theory. But in practice, election observers *are unable* to do this and are actively blocked from observing many critical parts of an election. This is a clear violation of the law and it's routinely done with impunity. Rather than go down the road of costly litigation, I'd like to see citizens and LEOs sit down and figure out a way for *citizen election observers to be integrated into a* <u>*meaningful*</u> monitoring process and given <u>*authority*</u> to do something to resolve and/or remedy any violations they witness. And I must say that the political parties have a lot to learn about *meaningful and comprehensive* election observation from well-informed citizens.

COOK Report: So it seems that you were just about the only person around at that point in time who actually took money out of your own pocket and traveled to the location where an election problem had occurred and started to ask questions, talk to the people involved, and connect them to others who could help. And these questions dug deeper into the issues than the sound bytes that appeared in the press. Is this how you built your network?

Waskell: Yes. I was very curious. I wanted to understand what was really going on and then be understood when I talked about it. And it was only the people who lost an election who were suddenly curious and then concerned about the vote counting. As I said before, no one ever called me to tell me how well their LEO ran an election! Losing candidates were really upset when they learned, for example, how sloppy record keeping could have an impact on the outcome of their election. And when they learned about the proprietary vote-counting software and the implications of *that*, they were shocked, disbelief set in, and then their eyes just glazed over with feelings of being overwhelmed. They went numb basically. And if these individual candidates then went to their state legislature to get some reforms in place, they'd hit a brick wall.

COOK Report: Name some of the states in which you began to tie together people who had been burned by the system and then started looking at it more closely.

Waskell: In the beginning I focused on a few scattered individuals in California. But what I did there was pretty much independent of what Election Watch was doing. The states of Florida, Indiana, Illinois, Texas, Maryland, Ohio and West Virginia each had a small circle of concerned citizens. I initially found that these people were working in cells and largely unaware that there were concerned citizens in other states. It was just like the LEOs who were unaware that their voting equipment was having problems all over the country, not just in their own state. I'd get news clips from someone in one state and pass them along to people in the other states. David Washington in Palm Beach, Florida had quite a collection of clips from all over the country. Occasionally I'd run into people who had been following these problems informally for a good ten years and by the time I arrived on the scene in 1985, they had newspaper clippings and other pieces of documentation or reports on problems that had only seen the light of day in local newspapers. They tended to be people who had run for a local office and lost, and when we started talking to each other we found that what we shared was a deep curiosity about how elections were run. So gradually I acquired quite a set of news clips about election snafus, software glitches, voting equipment breakdowns, inadequate pre-election testing, insufficient pollworker training and so on. It was every issue we saw in the nation in the November 2000 election. And these ongoing problems had been staring election officials in the face since the mid-1960s.

I'd also call many secretaries of state and ask for the certification reports on their voting systems. I'd contact counties and ask for a copy of the report on their acceptance testing and fire a bunch of friendly questions at them. How did you decide on this particular system?

I'd also call many secretaries of state and ask for the certification reports on their voting systems.

I'd contact counties and ask them for a copy of the report on their acceptance testing and fire a bunch of friendly questions at them. How did you decide on this particular system? What research and cost analysis did you do? What specific testing did you perform? Who designed the test? The counties knew next to nothing about the state certification process and they didn't seem to care how thorough it was or wasn't. All they cared about was that the voting system was certified for use in their state. And they were deeply concerned that voters would like the system. That was always hight on their list of priorities. I'd tell county officials about the flawed state certification process and the lack of a line-by-line inspection of the software and I'd usually get these responses. A blank stare from across the desk or silence on the other end of the phone. Or I'd hear about the virtues of the logic and accuracy testing and how *that* was what they relied on to ensure the integrity of the election, along with all of their checks and balances and, of course, *the recount.* That was a biggie! And I always tried to get several versions and/or perspectives of an event. Without fail, I'd come upon some interesting and vital details that were left out of the official version.

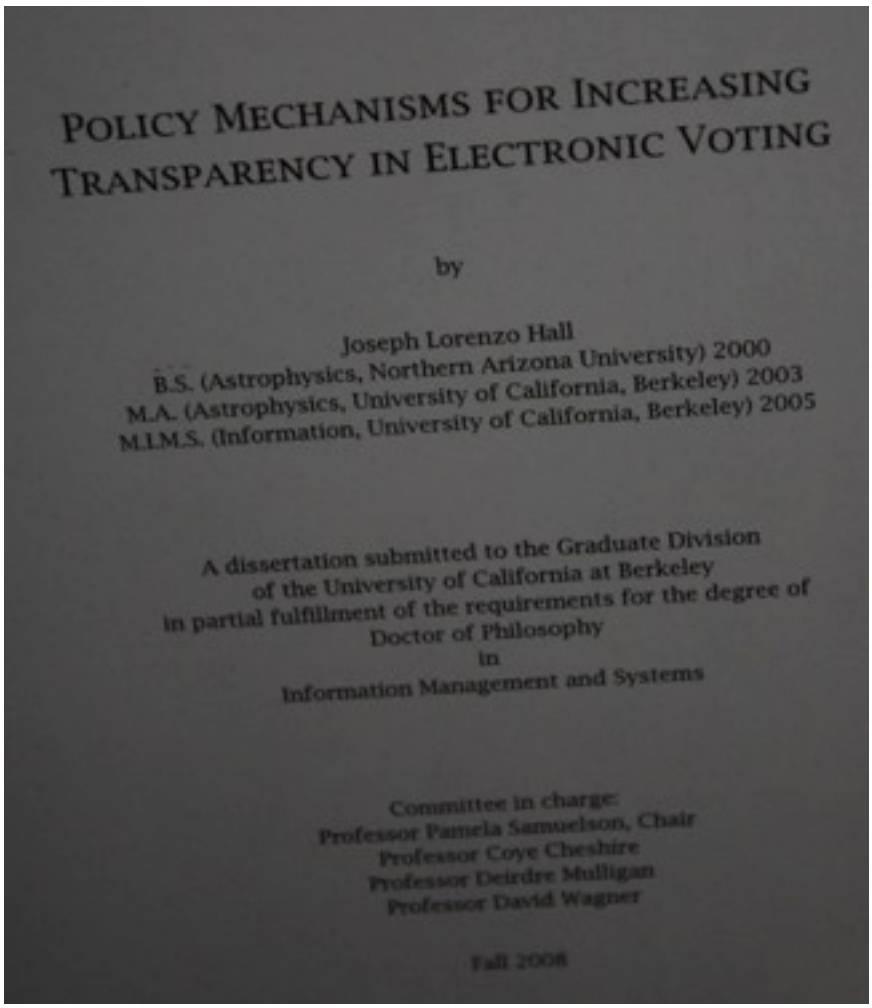
COOK Report: Would it be correct to say that there was some knowledge of the election process and some mini-investigations done by citizens—spontaneous combustion as it were—before you ever came on the scene?

Waskell: Absolutely. But these people had full-time jobs and therefore limited time, and often limited resources, to devote to this kind of public interest work, and they were working in isolation. *And they never got their hands on the voted ballots. That's the key.* What I would try to do was to connect these people with each other so they didn't have to reinvent the election wheel and so they would know what kinds of questions to ask and what to look for. Over the decades I spent hundreds and hundreds of dollars at Kinko's copying materials I received from one group of citizens and sending them to another. We were all about sharing information. Much of it was anecdotal because, given the widespread lack of transparency of the election process, there were no hard data evaluating how elections were run at the local level or how voting systems were tested and certified. Zip. No rigorous studies. No scientific approach to gathering data about the performance of the voting equipment or the LEOs. And when I read official reports that were issued in the aftermath of an election disaster, the reports always raised more questions than they answered.

Citizens were working in isolation. And they never got their hands on the voted ballots. That's the key. What I would try to do was to connect these people with each other so they didn't have to reinvent the election wheel and so they would know what kinds of questions to ask and what to look for.

I remember asking vendors at an IACREOT trade show if there had been a security review of their system. "Of course, there has. I'll send you the report," was the sly reply. I naively expected something detailed and comprehensive like California's Top To Bottom Review or at least a hundred pages or so of technical jargon I'd find difficult to interpret and evaluate. My plan was to give the security reviews to a genuine security expert and ask for *their* evaluation. But what I received from the vendors came from their public relations department. It was two or three pages of unsubstanti-

ated claims in plain English. What a joke! It was really disheartening when you realize that these were the voting systems that determined who would serve in our government. Remember how Congress was ablaze with indignation and action when it was learned that Dubai Ports World was about to purchase a British company that provided port security for several major US cities? See this article as a reminder <http://www.time.com/time/nation/article/0,8599,1161466,00.html>. It's too bad Congress has never been that worked up over computer security for voting systems.



POLICY MECHANISMS FOR INCREASING TRANSPARENCY IN ELECTRONIC VOTING

by

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A dissertation submitted to the Graduate Division
of the University of California at Berkeley
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy
in
Information Management and Systems

Committee in charge:
Professor Pamela Samuelson, Chair
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Fall 2008

21. January 2000

The move back to California from the East Coast

COOK Report: How did it happen that you moved back to California after so many years on the East Coast?

Waskell: I moved because I got a job offer. I left TeleStrategies in 1994 and did a few more conferences for the company as an independent consultant. But after a while the conference planning assignments were getting in the way of my election work so I began working full-time on election projects. There was the book, a screenplay, the nonprofit, the open source software for recounts, networking with concerned citizens, making attempts to interest the media, and always, always looking for the right words, the right stories, the right framing for all of this. *It was almost ten years since I first began looking closely at the people, procedures and technology that make up elections. I felt I knew more about this topic than the average voter but on another level I was still trying to understand...and to articulate the problem in a way that was compelling in order to raise public awareness. You can't solve a problem if you don't know there is one.* Yes, I had some solutions in mind but my focus was still somewhat on defining and framing the problem.

COOK Report: I remember that the funding for the election information center didn't materialize and your working on all of these various election projects must have depleted your savings. So in 1998 and 1999 you had to increasingly focus on doing whatever would pay the rent.

Waskell: Pay the mortgage. I eventually was forced to sell my house in Reston in the late spring of 1999 and move in with my Mother in Pennsylvania... where I *was* able to pay the rent. But leading up to that unhappy move were months and months of banquets and temp work...and a lot of packing. Yuk!

COOK Report: Then in November 1999 I got back from trekking in Nepal. Soon after that, Ed Gerck and I had a private email conversation with Larry Lessig about Lessig's book *Code and Other Laws of Cyberspace*. In that discussion in the context of trust on the Internet, I mentioned that I had a good friend involved in election technology. And by sheer coincidence it turned out that Gerck was interested and he asked me who this particular friend was. I made the introduction and he quickly called you. You were in Minneapolis at the time and apparently he convinced you to get on a plane and come out to California for an interview and work for Safevote, his Internet voting startup company. It turned out that you had the critical skills he was looking for, you understood the importance of standards and system requirements, and you could give him a detailed guided tour of the election community landscape and how the state and local election apparatus operates. You must have had quite a Rolodex by that time.

Waskell: Yes, I was in Minneapolis visiting the Jefferson Center (http://www.jefferson-center.org/) and talking to the people there about a citizen's jury. This is how it works. "The Citizens Jury process is a comprehensive tool that allows decision-makers and the public to hear thoughtful citizen input. The great advantage of the Citizens Jury process is that it yields citizen input from a group

that is both informed about an issue and a microcosm of the public." I had read some of the case studies on the Jefferson Center's website and I thought the process was very democratic and would be very helpful in raising awareness and directly involving regular citizens in shaping public policy in election administration. This was a radical idea for the world of elections but what the heck. There was nothing to lose by trying. After all, no secretary of state, the chief election official in a state mind you, and no LEO had ever been proactive in evaluating *in detail* how elections were run at the local level. So let the citizens have a crack at it.

Anyway, during my first phone conversation with Gerck in early December 1999, all he talked about was the technology involved. He invited me to come to San Rafael in mid-December for an interview. I guess he liked what he heard because I left the meeting with a work assignment that I had to start on immediately. One of the things that attracted me to his approach was that since the vendors knew absolutely nothing about the Internet, this could be a way to break their trade secret stranglehold over elections since Gerck had intimated that he would be willing to have his software publicly inspected at the appropriate time.

COOK Report: I remember Einar Stefferud's enthusiasm for Gerck when Stef discovered him down in Brazil and explained to me that this man who was trained as a nuclear physicist and had developed a paradigm changing way to enable the Internet to convey trust. So while Safevote was an Internet voting company, what to Stef was very different about it was its ability to enable the secure use of the Internet in the conveyance of authentication and trust in a way that they claimed could not be hacked.

Waskell: Those same principles have now been developed and applied to a secure email product offered by NMA, Inc., a company Gerck founded. And that product is used to secure the ballot in Safevote's Internet voting system. Full disclosure: I have stock in both Safevote and NMA, Inc. so I need to be upfront about that. The stock is absolutely worthless right now and the chance that it will be worth something someday is anybody's guess. If it does become worth something in the future, I will of course disclose that fact. For right now, I have nothing more to say about this.

COOK Report: He had a penchant for extreme control that in my opinion left him less likely to succeed. How long did you work for Safevote?

Waskell: Four years, from December 1999 through December 2003. But I wasn't even there for a full year when the November 2000 bombshell dropped and that changed everything. The vendors must have been absolutely giddy with gladness when the 2002 Help America Vote Act handed them hundreds of millions of dollars worth of new contracts for voting equipment on a silver platter. And all of this equipment had to be purchased within a two-year timeframe. So you had a massive shopping spree with a fixed deadline that occupied the minds and the budgets of election officials across the country, and their focus immediately shifted to implementing all of this new voting equipment *at breakneck speed*, and then a few years later having to replace most of it. It's no wonder that Internet voting got pushed to the back burner.

22. Internet Voting and other Public Policy Issues after 2000

COOK Report: What do you think about voting over the public Internet?

Waskell: It's a bad idea. We have so many other critical unsolved problems in elections that need to be dealt with first.

COOK Report: But Internet voting would save *a lot of money* for jurisdictions and that's extremely appealing. And it's a politically safe move, is it not? You can always say you're doing it for the benefit of the military voters.

Waskell: Absolutely. And given the current state of the economy, the "we must save money now" mantra has become even more ubiquitous as a knee-jerk reaction. But let's not ever forget that when an individual person or a political body reacts in this reflexive manner, the higher functions of the brain in the cerebral cortex are by-passed. Just so you know, I'm about to embark on my soap-box and talk about what I see as plain old crazy decision-making. Pure folly!

COOK Report: Be my guest.

Waskell: I fully realize that budgets are shrinking or frozen and that the economy is in the pits, and that's why state and local policy makers are currently giving little if any *serious* thought to the long-term consequences of their reflexive actions. But in the world of elections, this kind of reflexive reaction to extremely complex problems has *consistently* been made to one degree or another from the very beginning, i.e. from the time that computers were first introduced to count votes. Unfortunately and quite predictably, this approach gives short shrift to the more intangible but core values of democratic elections like transparency, public oversight, accountability, fairness, integrity, and so on. I think the chickens have come home to roost on this and it's the informed, involved citizens on the ground during election day who have taken note of it. They've seen elected officials give a lot of lip service and empty rhetoric to ensuring the sanctity of the electoral process, but if you look very closely at the real world decisions that have been made historically and the real world consequences, in many cases it's a very different story. The citizens' reaction to this since November 2000 has been this huge collective Aha Moment! As a result, they're mad as hell and they're not going to take it anymore. Okay, I'll get off my soapbox now. Quick. Ask me a question.

COOK Report: Has cost savings truly been the only driver for much of the decision-making about election technology and election procedures in general?

Waskell: I think it's more accurate to say that the twin juggernaut of cost savings for LEOs and of convenience for both voters and LEOs is what's been driving most of the key decision-making. It's not been the *only* driver, of course, but it's in the top ten and it frequently overpowers and crushes anything else in its path. The drivers are also a complex and inter-related mix of the traditional is-

sues of keen interest to the political parties like voter fraud, the status of voter registration databases, increased turnout or voter outreach, and voter convenience.

And I can't forget to mention the extreme importance of speedy results on election night. Yes indeed, a long delay in releasing returns can certainly arouse suspicion. At the same time, LEOs want to be as sure as they can that what they release is accurate, even though it's unofficial and vote totals *will change* in the post-election canvass period because absentees, provisional and overseas ballots have yet to be counted. But LEO's also have the media breathing down their backs on election night, a problem that's partially solved by having a separate room with a TV monitor showing the interim election results as they become available. As always, there's a balance and a trade-off that has to be made. And thankfully there are *many* LEOs who'd rather be accurate than fast on election night. I personally think if unofficial election results were *routinely* released at noon the following day, it would be better for everyone—everyone except the media, of course, that would scream bloody murder. But hopefully, the sleep-deprived candidates and people in the campaigns would just use the extra time to get some rest. I don't think that's going to ever happen however.

COOK Report: I recently saw a discussion between two authors with books on the economic and environmental impact of various technologies. And the author of *Ecotopia*, the older book, had made his reputation with the study of the economic impact and ecological impact of sewage systems. He commented that if there were an environmentally sound piece of infrastructure, it would never get built if it were not also cheaper than any other alternative.

Waskell: When you mention the public sewage system, I also think about the private laterals that connect to people's homes from the public sewer mainline. And all of these pipes are underground so we don't see them. As a result, our wastewater infrastructure has been sorely neglected and is deteriorating nationwide. But garbage, for example, is visible and if it's not picked up for one or two weeks, the sanitation department definitely hears about it and the problem gets solved rather quickly.

COOK Report: So in Florida in 2000, the voting equipment and the punch cards, the paper, and ballot design were readily visible and consequently that was what the press and the public interest groups glommed on to.

Waskell: Yes. That and the highly partisan secretary of state, Katherine Harris. The visible versus the invisible also definitely has an impact at the local level, which *funds* elections. For example, the county commissioners or board of supervisors have only so much money in their budget. They're faced with the decision as to whether they will use taxpayers' money to fix potholes, which people come to meetings to loudly complain about and which will give the county commissioners or supervisors brownie points with voters, or will they help the resource-starved election department. Given this context, their choice is rather obvious. Elections take a back seat to potholes and garbage collection every time. Election departments also do not generate any revenue for the jurisdiction like other local government agencies do.

I saw the impact of this kind of thinking first-hand when in the late 1980s I personally visited election departments in about 15 or 20 states. What was striking was that when I popped into to the offices of the mayor or the board of supervisors, generally the furnishings were modern and quite nice. The computers were fairly new. But when I went to the election office, I saw telephones from

the 1950s and old filing cabinets of World War II vintage. The computer systems looked like they belonged in a museum. This difference spoke volumes about the spending priorities and the political values at the county level.

To suggest that insiders might cheat at vote counting in an election is not only totally unacceptable socially and politically, it's unpatriotic.

Let me get back to my soapbox for a moment. This is what's missing in action in the public policy decision-making in the world of elections. The drivers have definitely *not* been transparency (or we wouldn't have privatized the vote-counting in the first place.), *not* accountability (or we'd see consistent, rigorous and widespread enforcement of election laws.), *not* quality of voting equipment (The determining factors were fast, cheap and LEO/voter convenience.), *not* auditability (Since there's rarely been a *meaningful, comprehensive* audit of any election, how would we ever even realize that this feature was lacking?), and definitely *not* security (Unlike the technology used in any other critical industry, like banking for example, the operating but unspoken assumption in the election industry is that the insiders who control their equipment can be trusted completely; to suggest that insiders might cheat at vote counting in an election is not only *totally unacceptable* socially and politically, it's unpatriotic). And yet people were so surprised in November 2000 to find out, along with the rest of the world, that blatant partisan election administration and shoddy voting equipment were an integral part of the US election landscape, and not just in the Sunshine State, which *The Onion* re-named Flori-duh!

Please note that each and every one of the defects in the punch card systems that came to light in the Florida 2000 election, *all* of these defects had been an open secret among election officials for *decades*. And yet, as Roy Saltman pointed out in 2006 in his book *The History and Politics of Voting Technology: In Quest of Integrity and Public Confidence*, there was never a chorus of complaints from the election community about this deeply flawed technology. That is, there were no complaints until Florida's 2000 presidential election when the well-known chads that had been hanging around elections all over the country for 36 years suddenly became the butt of jokes around the world.

COOK Report: Let's finish talking about Safevote. You edited the Safevote newsletter called *The Bell*, which talked in eloquent terms about the right way to develop standards and requirements for voting systems. Ed Gerck was very familiar with the Internet culture so that must have had an influence on him.

The systemic issues like lack of transparency and accountability were present not only in Florida, the state with the gold standard for testing and certifying voting equipment, but in states all over the country.

Waskell: Yes, Gerck wanted to follow the Internet Engineering Task Force model when he formed the Internet Voting Technology Alliance (IVTA), but the IVTA never really took off. Safevote did take part in an Internet trial in Contra Costa County, California. However, implementing all of this new HAVA-funded voting equipment at such a frantic pace was taking up all of the bandwidth of the election community, and once again the technology became the center of attention. And the press, of course, did very little to dig deeper into the Florida fiasco and look for all of the underlying causes. The systemic issues like lack of transparency and accountability were present not only in Florida, the state with the gold standard for testing and certifying voting equipment, but in states all over the country.

COOK Report: Those *Bell* newsletters you edited emphasizing a collaborative process have survived very well. They're all over Google.

Waskell: The newsletters were an attempt to inform and educate election officials. But by January 2001, a national wake-up call was underway in the wake of a presidential election that had been influenced by deeply flawed election technology and a partisan system of administering elections. So Internet voting dropped out of sight for a while.

COOK Report: What finally happened with Safevote?

Waskell: They ran out of money. I didn't like working without being paid so I left.

COOK Report: What did you do at that point?

23. Election Reform after 2004

Repeating all the lessons of the 1980s

Waskell: In January 2004 I started doing temp work again. A lot had happened in terms of increased public awareness of the problems with how elections were run in this country. Many public interest organizations, academics, technologists, and others became involved in seeking solutions to the most visible problems that were reported in the press. So I had a lot of homework and catching up to do. When I wasn't temping, I put in at least five hours a day or more following the election reform-related websites and citizen-based groups and reading the river of reports that were published. Today I regularly monitor over 50 websites.

Acting quickly behind the scenes were the vendors who weren't going to let this disaster go to waste. The vendors and their lobbyists saw a golden opportunity to increase sales not only of voting equipment, but of the much more lucrative, very pricy service contracts that typically accompanied a sale.

COOK Report: As you look back at what transpired starting in 2001, how did this second stage of election reform evolve? Who were the players now?

Waskell: Acting quickly behind the scenes were the vendors who weren't going to let this disaster go to waste. The vendors and their lobbyists saw a golden opportunity to increase sales not only of voting equipment, but of the much more lucrative, very pricy service contracts that typically accompanied a sale.

Next in line at the public trough, and with unmistakable dollar signs in their eyes, were the companies who wanted to get into the election business. They were coming out of the woodwork. They showed up at the NASED winter meeting in February 2001 en masse. But these newbies didn't have a snowball's chance in you-know-where because of the long-standing cozy relationship the vendors had nurtured for decades with the local and state election officials. The vendors and the LEOs were joined at the hip with mutual blind trust. It was a wink-wink relationship on a grand scale. The state officials played this game too. They all knew each other for a long time and had become a family, as one secretary of state truthfully put it. Plus, the news kids on the block really knew very little about elections so they could never really gain the trust of the LEOs. They quickly faded back into the woodwork.

But the new players I was really interested in were from academia, public interest organizations, and the grassroots. Especially the citizens at the grassroots who were in the trenches and seeing

first-hand how the theoretical election procedures were practiced in the real world, as opposed to how they looked on paper—assuming you could actually get a copy of that policy and/or procedure paper(s) from your local election department.

COOK Report: So the folks at the grassroots pretty much discovered what you and your network had experienced over the last two decades?

Waskell: Just about nothing this generation of grassroots discovered was really new to me. Absolutely nothing was surprising. Weak enforcement. Antiquated election laws. Limited opportunities for meaningful election observation. Testing protocols that would make any IT professional laugh out loud. Vulnerable and defective software that was certified. No transparency. No accountability. No public counting. Lack of internal controls. Lots of hostility when you asked hard questions. Unexplained election anomalies. Numbers that didn't add up. Over and under votes off the charts that never undergo a thorough investigation. Meaningless audits. Accessibility and usability issues ignored. An appalling lack of resources that continued unabated and unchallenged for decades. Unregulated vendors in control and claiming that they weren't. Election officials defending the vendors and their shoddy equipment. People with their head in the sand. No scientific research and no data about virtually every critical aspect of elections you can name. The good news, if you can call it that, is that all of what the citizens and activists and academics have run up against since 2000 has validated what Terry Elkins had uncovered, what I had seen happen to someone in my network, or what I had experienced myself first-hand.

COOK Report: Is there anything that you know of in particular that's been overlooked by the current academics?

It's very likely that Melvin Armstrong and the graduate students working with Deloris Davisson "looked at" the source code in Indiana during the course of the lawsuit. So if that were true, then Avi Rubin would be about the tenth person, not the first, to look at a vendor's source code. I told David Dill about all these people and he was genuinely surprised to hear about them.

Waskell: One of the main misconceptions has to do with the review of a vendor's proprietary source code. On June 19, 2008 I heard David Dill, a professor of Computer Science at Stanford and founder of Verified Voting, speak at the annual meeting of the Marin County Election Advisory Committee. Dill said that Avi Rubin at Johns Hopkins was the first computer scientist to look at a vendor's source code. That's not true and I told him so in private after the meeting. Rubin is the *fifth* computer scientist to look at a vendor's source code after Wayne Nunn (West Virginia), Deloris Davisson (Indiana), Eric Clemons (Wharton) and Howard Jay Strauss (Princeton), who both reviewed source code for the July 1985 *New York Times* article). And Rubin is the *sixth person* if you include Bev Harris of Black Box Voting who must have "looked at" the source code since she was the one who turned it over to Rubin in the first place. (In his presentation Dill failed to mention the

role that Harris played.) And it's very likely that Melvin Armstrong and the graduate students working with Deloris Davisson "looked at" the source code in Indiana during the course of the lawsuit—I'd have to first confirm this with David Stutsman—so if that was true, then Avi Rubin would be about the tenth person, not the first, to look at a vendor's source code.

I told David Dill about the people I just mentioned and he was genuinely surprised to hear about them. He had no idea they even existed.

COOK Report: You haven't said much about election laws.

Many election laws carry no real penalty. So if there's no enforcement and no penalty, is it really a law? While election laws also don't cover what really matters, like bona fide independent verification of election results, they get very specific about certain other things, like the requirement to perform the pre-election logic and accuracy test, which proves very little but has a great feel-good effect on the uninformed.

Waskell: Let me just summarize. Election laws are applied inconsistently, even within a state and from election to election. There's weak enforcement or no enforcement at all in many cases because the resources and/or the political will to prosecute just aren't there. Many election laws carry no real penalty. So you have to ask yourself, if there's no enforcement and no penalty, is it really a law? Election laws also don't cover what really matters, like bona fide independent verification of election results, but they get very specific about certain other things, like the requirement to perform the pre-election logic and accuracy test, which *proves* very little but has a great feel-good effect on the uninformed. When a law is broken, there's frequently no recourse. None whatsoever. You're stuck with the negative consequences of the law's violation. Many election laws contain sections that contradict each other. And finally, state election laws are vague, ambiguous and confusing. What this means is that the LEO, or the secretary of state, is empowered to interpret the ambiguous or confusing law, sometimes on a case-by-case basis.

Here's a good example of the level of enforcement. I *very briefly* did some pro bono consulting for a Florida Senate candidate in the 1990s and had occasion to be in Palm Beach County when ballots from the contested election were going to be recounted. Florida law clearly states that in a recount, the sealed ballots have to be opened in the presence of the...the candidate (or their representative) I think it was, and you proceed from there. I brought a copy of the relevant section of the state law with me because by this time I had learned that LEOs would misquote or misinterpret the law right to your face and if you didn't have anything to contradict them, you were just plain out of luck. Their word always trumped your word, and if you raised your voice in protest, you risked being kicked out.

So when I arrived at the LEOs office, the attorney for the losing candidate was sitting behind a long

table. A handful of observers were there and so was the press. The LEO walked into the room. She was carrying an open tray of punch card ballots, which she set down on the table in front of the attorney. She immediately proceeded to hand count the Senate race, pulling out one ballot at a time for the attorney to inspect. Wow! I just saw a clear violation of the state election law with my own eyes. I immediately went up to the attorney, showed him a copy of the law, and whispered softly something like, "She's breaking the law." The LEO glared at me with eyes of fire. The attorney waved me away and I stepped back in disbelief. I was flabbergasted! "I'll show him," I thought. I went right over to the gentleman from the press and showed *him* a copy of the state law that he himself had just witnessed being violated. "Look at this," I said. "She's breaking the law." I didn't say anything else because I assumed the reporter would put two and two together and come up with four. He came up with zero. He did absolutely nothing. In fact, he turned away from me and walked away...heading straight for the lawbreaker. I was speechless. Yep! You could say this was a light bulb moment. No question about it.

The good news is that in 2008 a project of the American Bar Association created online help for trial court judges who preside over election lawsuits.

And let's not forget that judges hearing an election contest typically have little or no computer expertise. Nor are they at all familiar with the nuts and bolts of election procedures from the perspective of the well-informed citizens in the trenches who have seen the nuts and bolts of election procedures up close and personal. Judges historically have gotten their primary information about the election process from election officials, the attorneys who represent them, and election experts from academia. The good news is that in 2008 a project of the American Bar Association created online help for trial court judges who preside over election lawsuits. And the National Center for State Courts worked with the College of William & Mary law school to "put together video lectures and a manual on election law with chapters devoted to tallying the ballots and recounts, as well as post-election challenges." These efforts are a good start...and long over due I might add. I've only watched a portion of these videos so I really can't comment on their quality.

COOK Report: What were some of your other observations regarding what happened in the post-Florida fiasco timeframe?

24. First Define the Problem

Only then can you craft a solution.

Waskell: I've always thought you should define a problem before you set about solving it. But the political forces that had been deeply disturbed and, most importantly, had been greatly and globally embarrassed by the Florida fiasco immediately went to work to define the problem *as they saw it.* Now some of the problems that were identified—for example, the partisanship of election officials (think Katherine Harris in Florida and Ken Blackwell in Ohio, and later on it was the partisan election officials in Maryland) and the horrendously out-dated and inaccurate voter registration databases, and the flawed ballot designs—these were genuinely important problems that needed attention. But these extremely *visible* problems that the press endlessly focused on represented only the tippy-tippy top of the iceberg. Below the surface were the bigger and more fundamental problems of privatized election software, transparency and the public right to know, accountability, observer access, inauditibility. These core problems were systemic and were not seriously and sufficiently addressed by the academics, the public interest organizations, the election community, or elected officials.

I do need to acknowledge that the totality of what these new players faced for the first time in the aftermath of November 2000 must have been overwhelming, like a kid in a king-size candy shop. Where do you start?? This is what I observed as the general reaction to that. First, the dominant strategy was a top-down approach. Second, while all of new players were certainly very well-intentioned, I have no doubt about that, each of them entered the arena of election reform with three important things: an intellectual and emotional lens through which they viewed the problem; a specialized tool kit; and a specific motivation or institutional mission statement. Third, this combination of factors meant that the new players would unconsciously "see" the problems and formulate the solutions in a sort of pre-determined and fairly predictable way. Thus, the individual manner of approach on the part of each new player was inevitable. Now these people are definitely making progress in identifying and solving problems. Kudos to them all! Their work is absolutely *necessary* but it is not *sufficient* to get at the heart of the matter. You have to find the *root causes and deal with them aggressively and honestly,* and not just deal with the symptoms.

"The most important political office is that of private citizen," wrote Justice Louis Brandeis. And citizens in the election integrity movement take their political office pretty seriously. They're living it. And don't forget, they're angry citizens...who have the potential to have a powerful and lasting effect on shaping election reform.

So who was it that positively, and rather quickly, identified the systemic problems and wanted to address them *immediately*? By and large it was citizens. Of course, you *will definitely see the words* transparency, accountability, and trade secret software mentioned in a number of academic papers and in reports from a wide variety of organizations. These words typically garner a sentence or two or maybe a thoughtful paragraph, with some rare and wonderful exceptions that I've included in my with "the good stuff." But public acknowledgement and acceptance of the true depth and nature of these problems?? Meaningful legislation that addresses these problems?? Missing in action. Nowhere to be seen. And citizens smell a rat.

COOK Report: Let's get back to what you were saying about the role of citizens.

Waskell: "The most important political office is that of private citizen." Justice Louis Brandeis said that, not me. And citizens in the election integrity movement take their political office pretty seriously. *They're trying to live it*. And don't forget, they're *angry* citizens. Angry citizens who have the *potential* to have a powerful and lasting effect on shaping election reform if they can *channel that anger into effective action.* There's a connection here to something a member of the audience at Supernova 2009 said. I'm paraphrasing a tiny bit. "The public Internet was created by angry young men. Now it's run by old men who still act like angry young men." Something similar in terms of harnessing human energy is happening with today's innately curious citizens who for the first time really started paying *attention* to how elections were run and then suddenly they became angry! It was citizens who were closest to the nuts and bolts of local election procedures *as practiced*. They were in the trenches and saw with their own eyes what was happening on election day at the polls and at the LEOs office, and on *election night* in the central counting room, and they had a gut reaction to much of it. It was citizens who directly observed the meaningless pre-election logic and accuracy tests, the meaningless recount procedures, the flagrant partisanship, the barriers to observer access, the rigged recount in Ohio after the November 2004 election.



25. How the November 2004 Ohio Recount Was Rigged

COOK Report: How exactly was the hand recount rigged?

Waskell. Election staff members used cheat sheets given to them by one of the vendors so that during the hand recount they would know what vote totals to report, i.e. vote totals that "matched" the vote totals from the computer. Not a very nice thing to do but not surprising. And the only reason it became an issue was because a citizen videotaped it!

COOK Report: Weren't there political observers at the recount?

Waskell: I believe there were. But as far as I know, the political observers didn't raise a fuss. This is a very good example of why we need *public oversight* of elections. One academic, who shall remain nameless, commented that although the Ohio recount was indeed rigged, we should remember that the original vote count was *not* rigged! Huh? This is supposed to make me feel more *confident* about the election?? I don't think so.

In short, I saw the years after Florida 2000 as a time of citizen awakening. And they didn't like what they saw. For very good reasons.

Since November 2000, these angry citizens got to work and started telling their stories. And they had stories to tell! Almost all of the stories I read about in the press or on the blogs and citizen-based websites that started popping up were stories that I had already heard or read about in one form or another or had experienced myself. And there were only stories and anecdotes from the grassroots at this point because there was no data. Nada. No science-based data on virtually all aspects of how well an election was managed. Yes, some of the grassroots stories were sensationalized but that's no reason to disregard *all* of the stories, some of which had great merit.

In short, I saw the years after Florida 2000 as a time of citizen awakening. And they didn't like what they saw. For very good reasons. In terms of the election integrity movement, if you can properly call it a movement at this point, it's still in its infancy. And one of the long-term strategic questions that may have to be answered is, Should the focus be on ensuring rights or building institutions? Or doing both?

As I recall, and I'm on shaky factual ground here, I admit, but I think it takes about 30 years for a movement to become mature. (Readers, correct me if I'm wrong. And quote your source please.) Citizens are doing fantastic and unrecognized work all over the country. They tend to work in cells on their pet projects, although that's been changing. Remember that election administration is

hyper-decentralized into thousands of local jurisdictions so it might be natural that the citizen-based election integrity groups have become decentralized, too. Each county's political culture is different. Minnesota is in a class by itself!! Well respected and envied by many in the election community. And Minnesota citizens seem to have a low tolerance for corruption.

COOK Report: Don't these various citizen groups have anything in common?

Waskell: There definitely is common ground and common purpose to what these dedicated volunteers are doing but they're largely functioning in cells. I haven't seen any real kind of sustained national coordination. The Creekside Declaration of March 22, 2008 is one attempt by about a dozen election integrity advocates (including election official Ion Sancho of Leon County, Florida) to define a common purpose: "Our mission is to encourage citizen ownership of transparent, participatory democracy." And Nancy Tobi in New Hampshire, Andi Novick in New York, voting rights attorney Paul Lehto from Washington state, and Bev Harris' watchdog group Black Box Voting and her mighty elves have begun to focus more and more on election integrity and election reform as a human rights issue. In addition, Harris et al rightly focus on the public right to know, public access to open election data, transparency, and accountability. Right now these concepts, especially the public right to know, public oversight and public control of elections, are pretty foreign to mainstream thinking in general and within the election community itself.

COOK Report: I'm sure that the concept of equal rights for African Americans was pretty foreign to mainstream thinking in the Deep South many years ago.

Waskell: Good point. But that attitude did change, just as I'm hopeful that the attitudes in the election community will change over time as the election integrity movement grows and matures, and as a young and Internet savvy generation of people become actively involved in meaningful election monitoring. Currently it's a very difficult uphill battle against the monumental inertia of the status quo, a staggering amount of complacency, and the unwillingness to ask hard questions and look the answers straight in the eye.

While we're on the topic of public control of elections, I need to mention a March 2009 ruling by the Justices of the German Federal Constitutional Court which banned computerized voting as unconstitutional, but upheld a Bundestag (similar to the US Senate) election using a paperless touchscreen voting system. Both sides of the touchscreen (and the Internet voting) debate, will find arguments for their side in this decision, but there's most certainly food for serious thought here. The mainstream press isn't covering this much but it's a hot topic among activists.

The decision mentions the impact of the complexity of a voting system, requirements for trust in elections, and most importantly, the Justices framed the issue as one of human rights. One commentator summed it up by writing in the May 23, 2009 issue of Newsweek: "After almost two years of deliberations, Germany's Supreme Court ruled in March that e-voting was unconstitutional because the average citizen could not be expected to understand the exact steps involved in the recording and tallying of votes."

This March 19, 2009 post on Black Box Voting <http://www.bbvforums.org/forums/messages/1954/79633.html> contains the press release about the decision and commentary by Bev Harris. Here are two brief articles which summarize the

issue and contain links to more information: A September 10, 2009 article in OpEdNews by William J. Kelleher, PhD entitled *Paperless Electronic Election Upheld by German Supreme Court*; and an October 15, 2009 article in OpEdNews by Kathleen Wynne entitled *An Interview with Dr. Ulrich Wiesner* (who filed the original lawsuit).





26. Applying the Principles of Three Cups of Tea

Listening to the citizen

COOK Report: Let's get back to the nascent election integrity movement.

Waskell: Some of the initial post-2000 efforts of the election integrity movement have been quite successful. But if this is going to grow into a genuine movement that makes a permanent difference, they are going to have to build relationships with election officials based on mutual respect and understanding. Exactly what Greg Mortenson did in Afghanistan as described in his recent books *Three Cups of Tea* and *Stones Into Schools*. Mortenson also points out that the very first step in his mission to promote peace through education was *listening*. *He listened to the people*. He listened and he heard what they wanted and that was what motivated him. I can't emphasize enough how critical face-to-face listening is as a first step.

Right now I don't see much listening and mutual respect at the local level. Citizen activists and election officials are largely throwing stones at each other. Yes, election officials *must* be held accountable if they violate the law and I know from first-hand experience that *they have done so repeatedly with total impunity*. This has set a very bad and deeply engrained precedent within our election system. Just ask the two women who found official election records, results tapes of precinct vote totals, in a dumpster behind the election department building in a county in Florida—a crystal clear violation of the federal law regarding retention of election records. And it was caught on videotape! The citizens were subsequently harassed by officials but the LEO was not punished at all. Injustices like this must not be allowed to continue. They're part of what fuels many activists.

I can't emphasize enough how critical face-to-face listening is as a first step. Right now I don't see much listening and mutual respect at the local level. Citizen activists and election officials are largely throwing stones at each other. But election officials must be held accountable if they violate the law.

At the same time, this arrogant and unlawful behavior does *not* reflect the vast, vast majority of hard-working, patient, dedicated and honest election officials who are doing the very best they can with very limited resources and working under pressure coming from a very large number of conflicting forces. Let's think about what they have to deal with as the ringmistress or ringmaster of a 30-ring circus. By the way, election administration/management courses in The Election Center's Professional Education Program cover the topic of "organized anarchy."

Election officials need to remember that there are definitely some citizens who ask questions that expose their basic ignorance about election procedures. And there are citizens who only seem to point out what you're doing wrong and not what you're doing right. (Election administration is like housework in this regard. People only notice when something is not done. "You didn't wash my *blue* socks." There's never any praise for what is routinely done. "Hey sweetie, thank you ever so much for taking out the garbage. Let me give you a hug.) This does not mean that *all citizens* can be painted with the same brush of disdain.

At some point, hopefully in the near future, citizens and election officials are going to have to create a process equivalent to having three cups of tea. And they need to create a safe space where this can happen. It's going to be exciting to see how this unfolds in each jurisdiction.

COOK Report: After 2000 I remember seeing many reports that came out of organizations based in the nation's capitol. What about these groups?

If you remain desk-bound and fail to do enough of the right kind of fieldwork, you'll never become familiar with local political cultures and traditions and their enormous impact on election procedures as practiced, not as they're preached.

Waskell: Many, *but not all*, of the very well-intentioned public interest people working in an office in Washington, DC were very insulated from what was actually happening on the ground on election day and in the computer room on election night. I think they were caught a little off guard by the chaos surrounding the Florida recount, like the "spontaneous" Brooks Brothers riot—that was in truth very well orchestrated—and that successfully shut down the recount in Miami-Dade County <http://www.democrats.com/joel-kaplan>. All I'm saying is that the perspective of those who work inside the Beltway would be a little different if they left their bubble on a regular basis, traveled to the counties, and listened to the stories of folks on the ground and not just talk exclusively to the election officials and their small circle of consultants, and the academics. If you remain desk-bound and fail to do enough of the right kind of fieldwork, you'll never become familiar with local political cultures and traditions and their *enormous impact on election procedures as practiced, not as they're preached.* Yes, you're going to hear some wild and sensational stories during these out-of-office experiences. And you're definitely going to hear political rhetoric and exaggerations. But if you listen carefully, if you listen wisely, if you listen with an open mind and no preconceived notions, you'll soon be able to sort out the wheat from the chaff. You'll hear themes and stories that emerge again and again in different geographical locations. This is a signal to pay attention. After all, given the unfortunate absence of scientific data, anecdotes are all we had, especially prior to 2000. These stories tell you where to look more closely and *where to start digging.* Where to get all the facts and separate myth and tall tales from reality. Sadly, in some cases the reality is not very pretty and it gets shoved under the carpet. Only to rear its ugly head in the next close election.

I feel compelled to draw an analogy here with the recent financial crisis because it illuminates the problem very well. I heard Charlie Rose talking to a high-level officer at PIMCO, one of the world's premier bond managers and a company that did not get burned in the financial meltdown because

they saw the housing collapse coming. How did they do it? They looked at the numbers, i.e. the rapidly rising prices of residential real estate and the huge profits being made by people who bought homes and quickly flipped them. Wow! This rate of growth is too good to be true!! It can't continue!!! So they sent three people to different parts of the country and asked them to *visit the offices of real estate agents and find out what was going on*.

What all of theses field interviews revealed was absolutely astonishing. It was unbelievable, and it turned out to be true! Not only were there enormous amounts of over-valued houses in the real estate market, but the real estate agents noticed, i.e. *they paid attention*, that people who were totally unqualified for refinancing were getting these loans that they couldn't possibly pay back. How in the world did the mortgage companies *qualify* these people?? So the three desk-dwellers turned temporary field-workers report back to headquarters with their amazing stories. And what does PIMCO do? *Take steps to minimize the risks of a housing bubble that they now knew was going to burst at some point in the all-too-near future.* In hindsight, we know that there was a lot of undetected mortgage fraud going on during that time. The underwriters were not asking for independent verification of data on the applications, and in many cases the underwriters themselves simply adjusted the figures on the applications, i.e. they'd add a zero after the last number representing a person's income, for example. I'm sure you get the picture.

Back to the lack of data. We *are* beginning to see more data on elections, thank goodness, but as Yale law professor Heather Gerken said in her 2009 book *The Democracy Index*, "...we should be deeply troubled by our inability to know whether the system is working or not." And "...it is difficult to make precise claims about the current state of the election system because the data are so sparse." And "...we don't even have the data we need to map where we are now." Well, right now we're building that map *without* the routine input from well-informed citizens and advocates. Our map is going to be incomplete and misleading if we don't allow them to contribute and we continue to treat them like they're a fringe segment of the population. Citizens in Riverside County, California and counties in southern Florida and New Hampshire, to name only a *very* few, have been methodically gathering data and writing excellent reports. I'll have more to say about citizens in Riverside County and their bottom-up approach to collecting election data in Chapter 30. Here's an example of a 19-page report from the citizen-based Florida Fair Elections Center <http://www.ffec.org/documents/Invalid_Vote_Reoirt_Reivsed_23June2009.pdf> that *used the same set of data* that the the secretary of state's office used for a report and the *official* conclusion, <http://election.dos.state.fl.us/reports/pdf/Over_Under_Report_08.pdf> but reached *a very different conclusion*, and one that I think is perfectly valid.

COOK Report: What I hear you saying is that what happened since 2000 validated the findings of your unique circle of people and you yourself who already had 15 years of experience in the trenches when the Florida fiasco hit. But these experiences were largely invisible to those who were working on election reform after Florida, especially the well-meaning academics who inhabit the universities. They tended to form partnerships with election officials, not with the grassroots.

Waskell: That's right. But remember that this partnership is not at all about accountability or oversight. Academics and election officials tend to be extremely polite with each other. And because the academics don't usually ask the hard questions, they're comfortable working together. The professors are there to get data and get published. And when their reports are published, the general reaction is, Gee, that's not good. Too many lost votes. Or...LEOs really need help with bal-

lot design and voting machine allocation. How can I help improve the situation? And the academics then get busy and they *really* do help! They're doing invaluable work and I respect that! Kudos to them all! Like the extremely smart folks at the Caltech/MIT Voting Technology Project <http://vote.caltech.edu/drupal/>. See for yourself the type of publications and events they're involved with. On the other hand, when citizens publish a report, the general reaction is, No, that can't be happening. It just can't. I don't want to *know* that it's happening. This report stinks! I must also point out that while typically the academics don't take the activists seriously, we have to recognize that *published reports from both of these groups can, and does, vary widely in quality.*

Many secretaries of state and LEOs also don't take the activists seriously and consider them to be operating on the fringe. Keep in mind that the kind of broad-based and intense scrutiny these public servants are getting from citizens is *their first genuine encounter with accountability*. Election officials have traditionally and routinely dealt only with the candidates during the pre-election candidate filing period, and with the candidates and their attorneys during any post-election challenges. V. Kurt Bellman, a former election director in Bucks County, Pennsylvania summed it up best when he noted that "election officials view citizens as people to be educated, not consulted." And just as election officials come in a wide range of personalities and attitudes and skill sets, you see the same variety in the various citizen-based groups. You'd see this kind of variety in *any* group of people. However, I have to say that the election official/citizen relationship is certainly off to a very rocky start. But it will improve over time. I hope.

In the sense of Malcolm Gladwell's book The Tipping Point, *you were truly performing the role of the connector for all those years and probably just about the only one doing this.*

COOK Report: In the sense of Malcolm Gladwell's book *The Tipping Point,* you were truly performing the role of the connector for all those years and probably just about the only one doing this.

Waskell: Yes, I was and am a connector. But I never consciously thought of myself that way. I just saw two things or people or ideas that were separated and felt they would be more effective if they were connected. The sum of the parts is always greater than the whole. And because elections are so vast and complex and arcane in many respects, there was an endless amount of connecting that had to be done. But I think it's now widely recognized that any work toward solutions to the challenges we face has to be an inter-disciplinary endeavor. The only problem is that well-informed citizens are still left out of this equation. They still don't have a seat at the table. And that's got to change.

COOK Report: I'm beginning to see how you found elections so fascinating.

Waskell: Good. And the learning curve seemed to have no end in sight because every election was the same in important respects and every election was different because the context of each election was always changing. And you constantly had to expect the unexpected. So it was never ever boring.

27. Because it was so very important . . . I just kept at it.

COOK Report: And it was very easy for this election work to take over your life.

Waskell: Anyone who dipped their toe into these fascinating and turbulent waters soon got sucked into a hefty amount of work. Volunteer work. The downside was that at some point they would just burnout. And many of the people in my network were inevitably faced with a choice given to them by their spouse or significant other. "Honey, it's either me or your damn election project!" (I really don't know if they used the word damn.) Many people dropped out. I certainly couldn't blame them.

But because it was so very important and because nobody else was doing what I was doing, I just kept at it. By the time 2000 rolled around, most of the people in that first-generation network of activists had dropped out. After 2000, the problems were more obvious and thus much more difficult to ignore, so once people got involved, they found it easier to stay involved. No, that needs to be qualified. It was easier for the public interest organizations who had the *resources* to stay involved. But I know it isn't easy for the many grassroots organizations or individual citizens who are doing outstanding work, even though burnout is always lurking in the background waiting to pounce on you. For example, I think of work done by Tom Courbat and SAVE R VOTE in Riverside County, California. And Dr. Richard Hayes Phillips in Ohio and his comprehensive detailed review of ballots from the November 2004 election. That was a huge project. There's also excellent work being done by citizen watchdog groups in southern Florida, California, Colorado, Connecticut, New York and Ohio. There's VotersUnite! which has done a terrific job of gathering news articles on election-related issues. If you want to know what's really going on in elections you have to check both the Pew Center's list of news articles at electionline.org and the news and reports at VotersUnite!

Most of the second round of people involved with election reform were totally unaware of the long and uninterrupted history of software glitches, snafus, confusing ballot designs, ugly partisanship in election administration and so on. They were also totally unaware of the election reform efforts that had been made by many citizens in Illinois, Indiana, Ohio and Florida and watchdog groups like Mae Churchill's Election Watch. And many people still can't identify the key players, the decision-makers, and especially the pre-2000 policy history that led directly and inevitably to Florida 2000.

28. VoteWatch and the Election Science Institute

COOK Report: How did you end up working for VoteWatch?

Waskell: In the summer of 2004, Steven Hertzberg, the founder of VoteWatch, spoke at an event in San Rafael that I attended. I peppered him with some probing questions during his presentation. Afterwards, I went up to him and introduced myself. We met for coffee in San Francisco shortly thereafter and he explained what he had in mind for monitoring the November 2004 elections, with a focus on exit polls in Ohio. He invited me to be on the VoteWatch Advisory Board. He recognized that I knew a lot about punch card systems in particular and elections in general. Once I was on-board, he got the bright idea to try and audit a handful of counties in Ohio in addition to doing the exit polls. We picked about 20 counties at random and I made up a list of public records to request—precinct records, audit logs, interim reports of election results, chain of custody documentation and so on. The goal was to get a snapshot of a county's record keeping and to try and verify the accuracy of the election results. I personally reviewed about 15 or more boxes of documents and was preparing to write a report on my findings.

Ohio election officials didn't fully comply with the public records requests. Records were missing in quite a few categories of documents and for some counties there were whole categories of documents that were missing. This wasn't surprising at all. Even so, the records that were turned over were quite revealing.

COOK Report: Were you doing a real audit?

Waskell: No, not at all. I was just trying to get a snapshot of a few targeted election procedures. Unfortunately, Ohio LEOs didn't fully comply with the public records requests. Records were missing in quite a few categories of documents and for some counties there were whole categories of documents that were missing. This wasn't surprising at all. Even so, the records that were turned over were quite revealing. For example, it was impossible to know exactly which voting machines were in which precincts because the delivery directions on the records I saw indicated that these seven machines numbered one-seven go to ABC community center where there were three different precincts at three different places in the building. But based on what I had in front of me, I didn't have any idea how the delivery people knew which machines went to which precinct. Then there were the ballot reconciliation forms filled out by the pollworkers when the polls closed. All ballots had to be accounted for...ballots received, voted ballots, spoiled ballots, unused ballots and so on. There were quite a few errors in the math on these forms and several cryptic comments

from pollworkers who were trying to explain why their ballots didn't balance. It was all par for the course. I forged ahead and learned a lot in the process.

Before reviewing the election records from Ohio, I had contributed to a report published by VoteWatch. I remember that I finally completed the review of precinct records late on a Wednesday evening, and on the following Friday, Hertzberg told me to stop work because funding had become uncertain. What a disappointment! And a surprise!! In the end, a lot of people who had worked for VoteWatch, including myself, never got paid the full amount of what they were owed. I remained on the advisory board when VoteWatch changed its name to the Election Science Institute. Hertzberg and I were definitely on the same page regarding the need for data, studies, and a rigorous science-based approach to improving elections. He said, with a smile, that my new title would now be Chief Election Scientist. I didn't like the CES initials because they reminded me of the vendor Computer Election Systems.

But Hertzberg eventually got funding from somewhere because in August 2006 the Election Science Institute published a report entitled *DRE Analysis for May 2006 Primary Cuyahoga County, Ohio* <http://bocc.cuyahogacounty.us/GSC/pdf/esi_cuyahoga_final.pdf>. The 229-page report analyzed the county's Diebold touchscreen voting system and found serious shortcomings, with serious consequences, that merited urgent attention. Hertzberg and I talked on the phone several times after the report came out. On one occasion he mentioned that he had to put some of his own money into the Cuyahoga project to ensure its completion. It was "financially draining," he said. "Welcome to the club," I replied...while thinking to myself that I had been financially drained and gone through my entire life savings not once. Not twice. But thrice over the many years of my volunteer election work.

COOK Report: What have you been doing since you left the Election Science Institute?

Waskell: Continuing my self-directed education. It's a never-ending process, of course. I'm always learning something new. And by 2006 there was a steady stream of reports coming out that I had to read and digest, and a smidgen of research projects in election administration and/or election technology that were just getting underway. Election science is in its infancy. I still followed the anecdotal evidence and written reports flowing from a wide variety of people, the activist communities at the grassroots level being the newest contributors. But in some areas, like the reports from VotersUnite! that kept track of nationwide voting machine malfunctions by vendor, citizens were doing a better job in collecting data than the Election Assistance Commission.

I also want to get my election files and historical materials from the 1970s, 1980s and 1990s online. It's important to see where we've been, what we missed, and what mistakes were made in order to move ahead in a direction that will produce the needed improvements in elections.

Some of the older reports from the past decades will make interesting reading today. The warning signs were everywhere. And everywhere they were ignored.

29. Evolution of My Thinking

COOK Report: Can you briefly summarize how your focus shifted over the years?

Waskell: Before I say something about my shift in focus over the years, let me say something about my focus during an actual election. It was always necessary to shift your focus and your awareness during any election to ensure that you saw *the whole problem in context and in relationship to all of the other parts of the election system.* The trick in doing this was that some of the election context was visible and some of it was either invisible or a taboo topic you didn't talk about. At the same time, you had to know what was important and keep your eye on that. You had to understand what you were looking at. This is a key factor in election monitoring that's overlooked all the time. You can't effectively monitor a process you don't understand. You wouldn't want me to evaluate brain surgery, for example, or someone's golf swing. Yet we have people observing an election process all the time and they have *no idea* of what they're looking at...whether it's the pre-election logic and accuracy test or the vote counting. One last point. Because there's so much happening election day within a very short period of time, it's very easy for something that's critical to get lost in the chaos.

COOK Report: So how did your focus and your thinking about elections evolve over time?

... agencies in Nevada and California know more about the employees in casinos and the people who collect money from parking meters than any election official at any level of government anywhere in the country knows, or has even tried to know, about the people who own, work, consult with and are tied to the companies that manufacture voting systems.

Waskell: Originally I focused on the technology and the need for robust, mandatory standards. And I researched the ownership of the vendors when I had the chance. Who really *owned* these private companies whose software had such enormous political power? Who were the programmers? Who were the other employees? Ronnie Dugger has done a lot of digging in this area and so have a number of citizen-based groups. Unfortunately, what these public service investigators have uncovered and documented is not well known at all outside the activist community. So government agencies in Nevada and California know more about the employees in casinos and the people who collect money from parking meters than any election official at any level of government anywhere in the country knows, *or has even tried to know*, about the people who own, work, consult with and are tied to the companies that manufacture voting systems. When any state or local election sleuths examine the private vendors, their number one concern is whether or not the company will remain solvent so no LEO gets burned buying a voting system and then having the vendor go out

of business. The vendors will tell you that this entire situation isn't really a problem because they do backgrounds checks on their employees. No further comment. Let's move on to something more uplifting.

COOK Report: You were talking about how your thinking evolved over time.

Waskell: Oh. I don't know how uplifting that is...but here goes. The proprietary vote-counting software was the first dragon I wanted to slay. Then later I realized that trade secret election software does much more than count votes. The vendors' election management systems are used for many essential and critical functions throughout the election process and all of this software is uncertified, unexamined and unregulated. So first it was all about the flawed voting equipment and this impenetrable black box that was counting votes.

Then over the course of a few decades, I spoke with numerous attorneys across the country who were involved in a variety of election litigation at the local level. The common theme that emerged here was that the courtroom was a dead end.

And because I jumped into the three lawsuits at the very beginning, I quickly saw the *limitations* of the courtroom process. Then over the course of a few decades, I spoke with numerous attorneys across the country who were involved in a variety of election litigation at the local level. The common theme that emerged here was that the courtroom was *a dead end.* The Catch 22 situation the plaintiff always faced was that you have to show fraud before you get access to the voted ballots. But you have to inspect the original voted ballots if you expect to prove fraud. And even if a judge orders the LEO to turn over the ballots or the election database on the election computer, *some or all of the key evidence—without failure—has a funny way of disappearing*. The plaintiff is left empty-handed (and soon to be ridiculed) and the LEO goes back to work as if nothing happened, except that the LEO will be sure to tell the stenographers—I mean the press—about how much money the "sore loser" has cost the local taxpayers.

That reference I just made to a judge ordering the election database on the election computer to be turned over to the plaintiff comes from a court case in Pima County, Arizona stemming from a 2006 Regional Transportation Authority election with just a yes/no choice on the ballot. I don't know where to begin to talk about this election and the actions of the local election department in Tucson because there are so many absolutely excellent examples of what really happens when someone gets too close to potential hard evidence. The voted optical scan ballots suddenly get moved to another county...for safekeeping. Poll tapes with vote totals go along for the ride. Critical documents are missing and never found. No one is held accountable. Transparency is close to zero. Observer access to the hand recount is restricted. The press reports are very, very misleading and incomplete, and when you read the citizen reports about what happened, the details that emerge are disturbing. It's a perfect story for PBS's FRONTLINE but the entire story would have to be shown in several parts so people would have time to absorb the dirty little election secrets that were exposed. But it's the disappearance of evidence that should concern us.

...the actions of the local election department in Tucson...there are so many absolutely excellent examples of what really happens when someone gets too close to potential hard evidence. The voted optical scan ballots suddenly get moved to another county...for safekeeping. Poll tapes with vote totals go along for the ride. Critical documents are missing and never found.

Look, it's not only the Arizona case. So you can't say that the people involved were just out in the sun too long. *Two-thirds of Ohio counties destroyed or lost ballots and election-related records from the 2004 presidential election when the counties were under a court order to preserve them.* You can read the excuses that were submitted (They may remind you of that ubiquitous dog that roams around eating homework.), and apparently acceptable, to the Ohio Secretary of State's office for yourself <http://electionfraudnews.com/Articles/OhioLettersScoop.pdf>. This is highly recommended reading. I don't want to comment any further about this unfortunate and purely accidental ballot destruction because it makes my blood boil, so your can read this one brief July 30, 2007 article by Steven Rosenfeld instead <http://www.theallianceforde mocracy.org/html/eng/2473-AA.shtml>. Thank you for your understanding.



After my experience in Texas working as Terry Elkins' assistant and a consultant to the attorney general's investigation, the complexities of an election hit me all at once like a ton of bricks. I was overwhelmed and over my head in many ways. If I only knew then what I know now! *That's when I realized that technology was only one part of the election process which was a massive management problem, not to mention the logistics nightmare of election day when anything that can go wrong often does. And the people involved are extremely important...pollworkers and the LEO's*

staff in particular. I also learned that there can be a huge difference between an election policy or procedure as it exists on paper, i.e. in theory, and how it exists in practice on election day. The manual may say that all voting machines must be tested, for example. But if there's no time to do it, which frequently happens, then only a small fraction of machines get tested.

So now I was aware of the people, procedures, policies and above all there was the politics. Local politics and the invisible impact of local kingmakers who worked their political black magic behind the scenes. Remember that when a LEO is appointed by the chair of one of the county's political parties, there is always the potential for partisanship hanging over practically every critical decision that's made, especially during an election dispute. But some of the more seemingly mundane decisions can also have a big political impact. For example. What locations do you choose for the early voting center? How much do you choose to be absolutely clear about and to emphasize certain directions to the pollworkers about how they should handle, say, provisional ballots? How lenient are you going to be in accepting overseas ballots that shouldn't *technically* be counted? I must say, however, that there definitely are appointed LEOs who do manage to be neutral and fair, and gain a well-deserved reputation for their virtuous conduct. And then there are LEOs at the opposite end of the neutrality yardstick, and all gradations in between these two extremes.

And once in power, the winners truly do not want to question the technology that put them there. They are not under any circumstance going to do a genuine comprehensive investigation of either the technology or the dysfunctional election system that got them elected.

As far as the role of election reform legislation goes, both Terry Elkins and I started out thinking that all of the losing candidates and/or the elected officials we spoke with and had sent little educational packets to, would quietly work through backchannels or would form a critical mass in their state at some point, and we'd see *some* kind of legislation addressing these concerns. After all, Texas *did* amend its election laws after the investigation of the 1985 Dallas city election. But we found that after the initial meeting with these people where we saw understanding of the problems and genuine concern, we never heard from them again. We were baffled for months on end until finally we realized that state election laws were written by the winners of an election. And once in power, the winners truly do not want to question the technology that put them there. They are *not under any circumstance* going to do *a genuine comprehensive investigation* of either the technology or the dysfunctional election system that got them elected. There may have been a Pecora Commission to uncover the root causes of the Great Depression, i.e. what went wrong and who was responsible, and bring about *major* financial reforms, but there will *never* be a Pecora Commission at the state or county level to uncover the root causes of any Great Election Disaster that may occur.

COOK Report: I can see why citizens feel that the job is up to them.

Waskell: The question is, How should citizens most effectively go about doing it?

Let me say a few words about the prevailing supremacy of states' rights. Following the Florida fiasco, the National Association of Secretaries of State (NASS) went on the record *strongly* defending states' rights, a position they've always strongly supported. NASS wants the federal government to keep their hands off elections and let them do their job; Congress should *not* meddle in how the states run elections. And historically, the federal government has had no say in how local elections are run. (See Article I, Section 4(1) of the US Constitution.) Nonetheless, NASS *does* support the functions of the newly created federal agency called the Election Assistance Commission (EAC), whose mandate is to provide information on election administration—no meddling there—and to distribute millions of dollars of HAVA funds—no meddling there either—and to work with the National Institute of Standards and Technology on the voting system standards and accrediting testing labs, which really does help the states.

But I need to point out that our elections are in such a pickle precisely because *the states have failed* in their duty to do due diligence regarding the risks of computerized voting systems; and failed to certify honest voting systems that were accurate, reliable and secure; and failed to perform adequate oversight of the locally-administered elections; and failed to enforce the election laws already on the books; and above all, the states have failed to protect the interests of the voter while consistently protecting the business interests of the vendors. These failures at the state level over the past 45 years have created our dysfunctional election system.

Oh, my goodness. I may not be able to attend another NASS meeting without having tomatoes thrown at me.

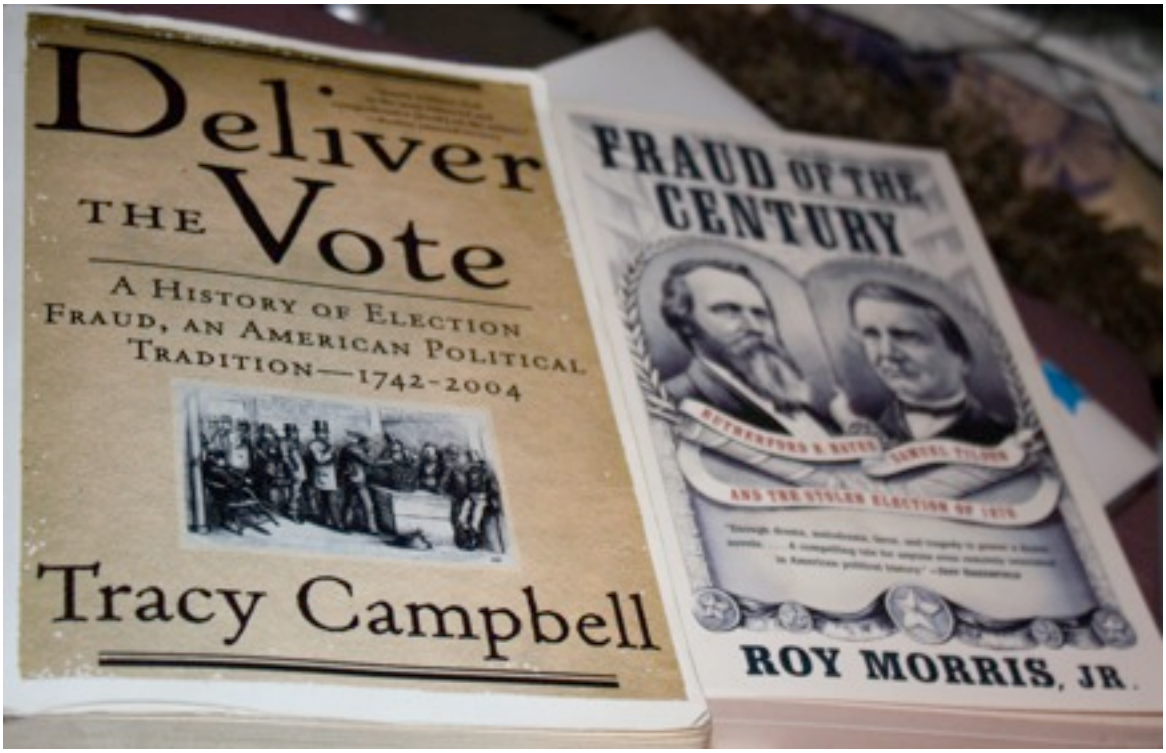
COOK Report: What role do you see for the political parties in election reform?

Waskell: The political parties will continue to focus on the issues they've been focused on since the presidency of George Washington, i.e. voter suppression and increasing turnout. You can read all about it in Tracy Campbell's *Deliver the Vote: A History of Election Fraud, an American Political Tradition—1742-2004.* And while you're at it, read *The Fraud of the Century: Rutherford B. Hayes and Samuel Tilden and the Stolen Election of 1876* by Roy Morris, Jr. *Then* talk to me about the sanctity of the American electoral process.

I don't mean to sound cynical because I think the 2000 Florida election crisis has given us an extraordinary opportunity for genuine election reform unlike any of the short-lived reform movements described in Campbell's book. Topics like ballot design, accessibility, statewide voter registration databases, usability, neutral and professional election officials—to name only a few—are all worthy of attention. And there are very good people working on these problems. Progress is being made in these areas and progress will continue to be made. And the political parties are supportive on these reforms. But the core problems of the public's right to know, ballots as public records, privatized and non-public vote counting, the lack of transparency and meaningful election monitoring—to name only a few—are issues that have yet to be widely identified and seriously addressed. And it's primarily *citizens* who are trying to bring these critical issues to light. Citizens who are being ignored and/or marginalized. That's the bottom line.

COOK Report: Let's go back to your initial feeling of being overwhelmed.

Waskell: I was overwhelmed by what I saw happening in Texas and what I still didn't know about



elections. I knew I had a lot to learn before I could even *begin* to understand the whole picture, but there was no hard data about any aspect of election administration, except for the over 400 pages of Joseph P. Harris's classic *Election Administration in the United States* published in 1934. It was many years before I got my hands on a copy. The course of study I followed was frequently dictated by what I needed to know right then in the election-related situation facing me.

I was also intrigued by the intricate relationships between all of the various players. For example, there was the relationship between the vendors and the election officials. That just fascinated me. They were like family. A secretary of state is quoted in the paper as saying that. I've heard many LEOs say the same thing. Vendors are like family but citizens are not.

COOK Report: So election officials and vendors are like family. That must mean they're very forgiving and very loyal to each other.

Waskell: It's certainly a cozy relationship. And a very, very trusting one.

COOK Report: So you were overwhelmed and yet you must have had some kind of goal, if even a short-term objective.

Waskell: I had *no idea* where all of this was leading but I knew I just had to keep trying. If I had any objective it was to raise people's awareness of the problems. My target audience was anyone who would listen. Maybe I'd talk with someone who knew someone who knew someone else who would be interested and could help in some way. The decision-makers who brought us this mess didn't think there was a problem so I obviously had to go elsewhere.

At the same time, the problems with the punch card systems and that horribly error prone Votomatic were a wide open secret among election officials. If you ever attended the IACREOT conferences and trade shows, as I have, and hung out in the hotel lobby and talked informally with LEOs during lunch and spent time in any of the numerous hospitality suites that were furnished with lav-

ish buffets and plenty of booze, you would hear the stories straight form the horses' mouths. I heard about problems I never knew existed! For example, when the punch card systems were first introduced, the LEOs had to experiment with different weights and quality of paper for the punch card ballots. The cards were very sensitive to humidity—think about Florida's climate versus that of New Mexico—and would swell, and that in turn caused problems with the card reader...paper jams, card reader errors and the like. You knew you were using the wrong weight of paper when you'd see confetti—that was the word they used—all over the floor on election night. Hhhmmm. That confetti represented votes that were all over the floor! Was this a close election? Did any candidate's attorney request that the confetti be counted? Did anyone know that the confetti even existed? While these types of stories held me spellbound, I also heard some dissent from LEOs who said they took one look at the confetti on someone else's floor and went right out and purchased an optical scan system.

Those small and ornery pieces of chad just stayed on the punch card and swung in and out and back and forth and in again...of their own free will...so one moment you had a vote...then you didn't have a vote...and then the vote would suddenly return...and you said the election officials' prayer before every election: Lord, let this election not be close!

Another problem—well, actually it became known as a feature of a punch card system—was that the chads, the hanging paper rectangle that the voters punched out when they voted, didn't always get completely punched out. Those small and ornery pieces of chad just *stayed* on the punch card and swung in and out and back and forth and in again...of their own free will...so one moment you had a vote...then you didn't have a vote...and then the vote would suddenly return...and you said the election officials' prayer before every election (Lord, let this election not be close!) and that is why there's no reason to be upset when the votes change during a recount because the chads did it and the votes are going to change just a tiny bit every time you run the punch card ballots through the card reader. But not to worry. It won't change the outcome of the election.

Another ongoing objective I had was trying to find the right words to describe the problem. Terry Elkins and I discussed this issue all the time. If someone didn't understand what I had just said, I'd have to use different words to make my meaning clearer. If I found a word or phrase that worked, I'd tell Terry, and vice versa. Several other people in my network were doing the same thing, i.e. coming up with new ways to talk about the problems. I used the Socratic method frequently and would just ask questions in order to engage in a dialogue with a person. I'd ask the same question to different people and see what kind of response I got.

Over the years it became quite clear that, in spite of all of my word-smithing, what I had to say was falling on deaf ears. It slowly dawned on me that the only effective way to overcome the monumental inertia of the status quo was to embarrass people into action, into making improvements. I recalled that during the Civil Rights movement in the 1960s, when photos of white po-

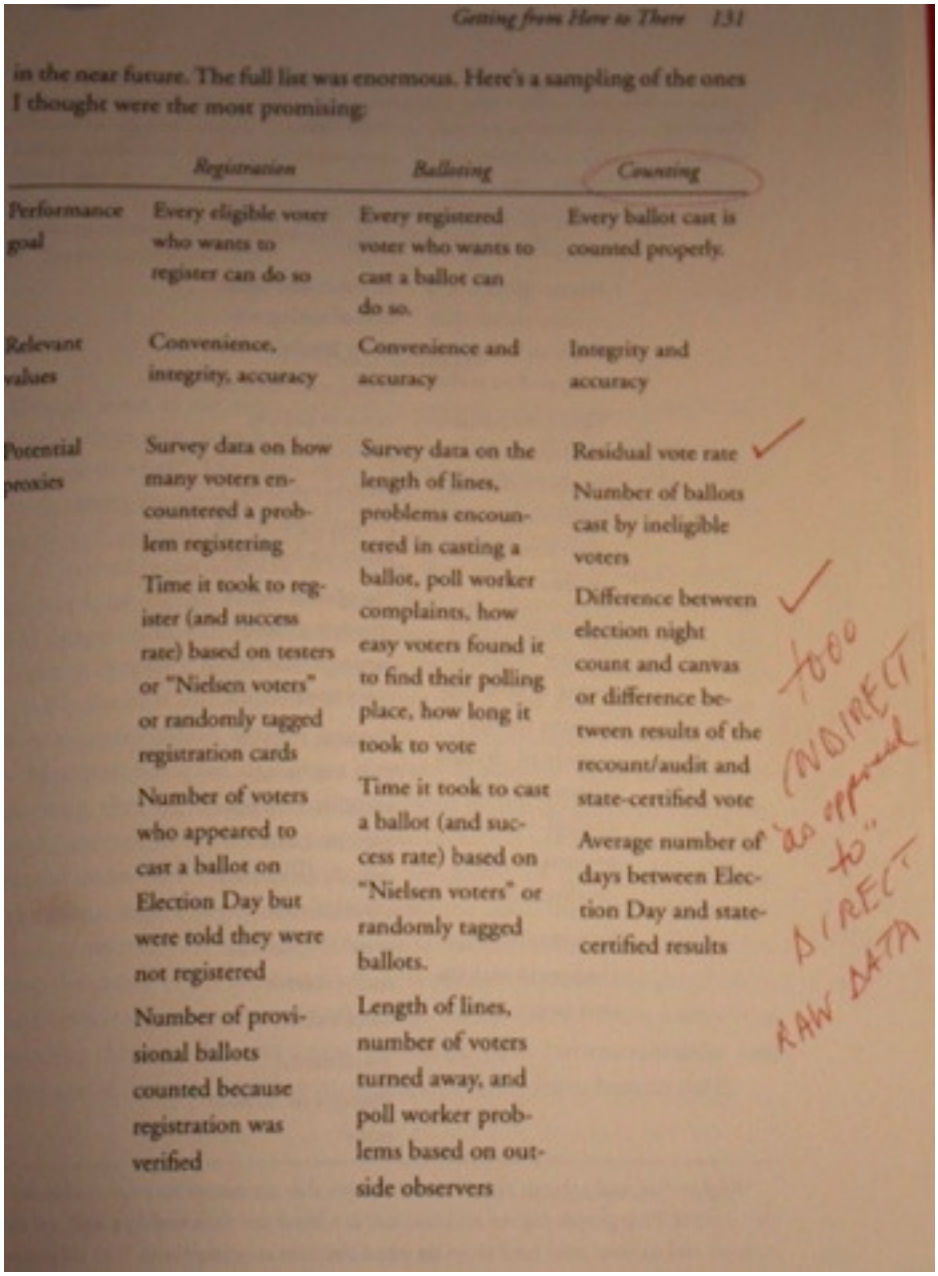
licemen hosing down black protesters began showing up in *European newspapers*—that had quite an effect on Congress. It embarrassed them. The situation in the South was something they were forced to begin to pay serious attention to.

Heather Gerken is also trying to embarrass election officials into action in a way, or rather she's trying to get them to avoid embarrassment, by having them compete among themselves for a better ranking in her Democracy Index. She's moving in the right direction. But as it stands right now, her Democracy Index uses only proxies and indirect measures for the "counting" category.

Heather Gerken is also trying to embarrass election officials into action in a way, or rather she's trying to get them to *avoid* embarrassment, by having them compete among themselves for a better ranking in her Democracy Index. She's moving in the right direction. But as it stands right now, her Democracy Index only uses proxies and indirect measures for the "counting" category, like the "number of ballots cast by ineligible voters" or the "difference between election night count and canvas [*sic*] or difference between results of the recount/audit and state-certified vote." (See page 131 of her book in the photograph on the next page.) Gerken notes on page 130 that these are examples of "what experts think is achievable in the short term." She's referring to the experts who attended "a 2007 conference on the Democracy Index sponsored by the Pew Center on the States, the Joyce Foundation, the AIE-Brookings Election Reform Project, and the Ohio State University Moritz College of Law." These proxies will certainly give us some indirect measures of the counting and it's a worthwhile set of data to collect. However, I think the use of proxies would be a very weak kind of validation of election results in the eyes of most citizens.

I have a somewhat different perspective on how to handle the counting. Let's cut to the chase and go right to the strongest validation possible, which is the direct evidence, i.e. the voted ballots. The votes on the voted ballots are the most important and fundamental pieces of data in a democracy in terms of trustworthy election results. Is this approach achievable in the short term? I believe we must achieve this is the shortest time possible by fast-tracking the only projects I've seen that put the voted ballots online on election night, i.e. the Humboldt Election Transparency Project and the Clear Ballot Group. Perhaps the open source community could put its full weight behind creating more pilot projects like the one in Humboldt County, California. Perhaps the Clear Ballot Group will be able to obtain enough funding for their commercial venture that they'll have a handful of pilots. I wish them both super-duper success. These pilots are all doable for the November 2010 elections if we get started right now. They're both already past the proof of concept stage. And think about what we could have in place for November 2012 to minimize chances of another election meltdown.

COOK Report: You are now an election integrity strategist. So what was your strategic direction over these past decades?



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in the near future. The full list was enormous. Here's a sampling of the ones I thought were the most promising:

	Registration	Balloting	Counting
Performance goal	Every eligible voter who wants to register can do so	Every registered voter who wants to cast a ballot can do so.	Every ballot cast is counted properly.
Relevant values	Convenience, integrity, accuracy	Convenience and accuracy	Integrity and accuracy
Potential proxies	Survey data on how many voters encountered a problem registering Time it took to register (and success rate) based on testers or "Nielsen voters" or randomly tagged registration cards Number of voters who appeared to cast a ballot on Election Day but were told they were not registered Number of provisional ballots counted because registration was verified	Survey data on the length of lines, problems encountered in casting a ballot, poll worker complaints, how easy voters found it to find their polling place, how long it took to vote Time it took to cast a ballot (and success rate) based on "Nielsen voters" or randomly tagged ballots. Length of lines, number of voters turned away, and poll worker problems based on outside observers	Residual vote rate Number of ballots cast by ineligible voters Difference between election night count and canvas or difference between results of the recount/audit and state-certified vote Average number of days between Election Day and state-certified results

This is page 131 of Heather Gerken's *The Democracy Index* where she lists potential metrics for measuring registration, balloting and counting.

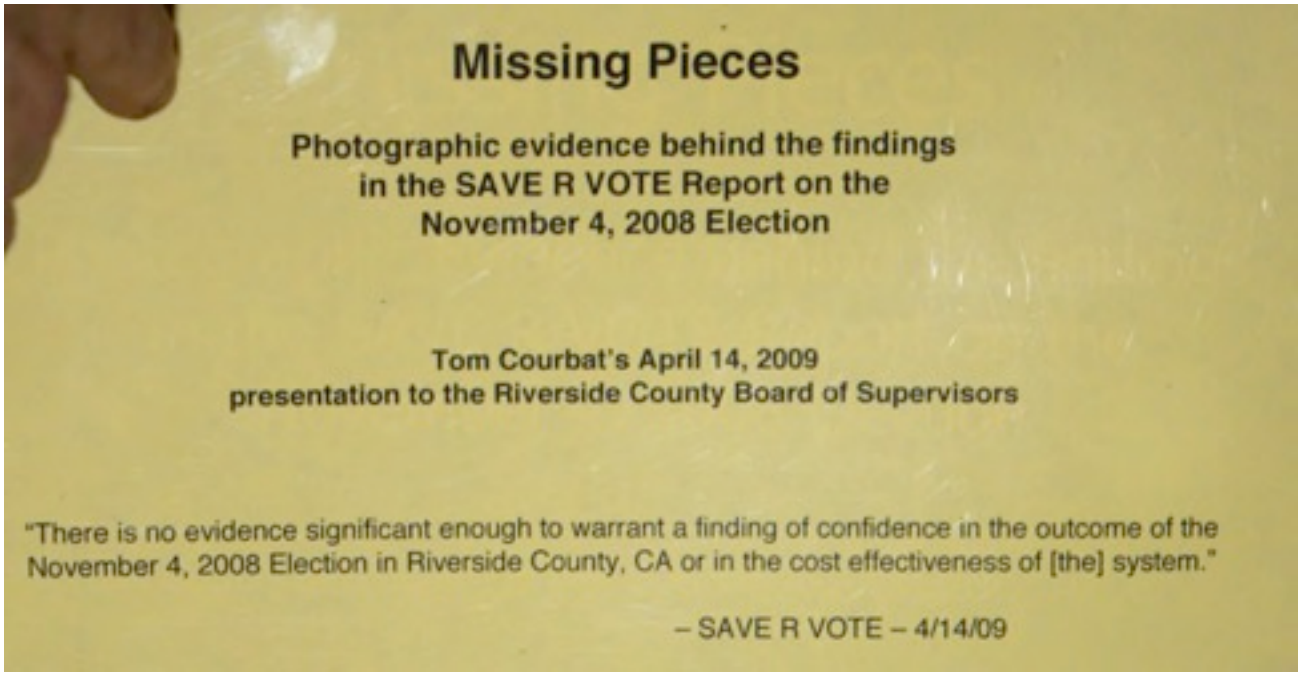
The only real goal I had in mind was to raise enough public awareness to start a public debate so the problems could be* honestly identified *and framed in a manner that would produce genuine and long-lasting reform. To tell you the truth, I never really looked back until you asked me to do this interview.

Waskell: The only direction I had was to keep moving forward. The only strategy I had was to keep learning. Keep asking questions. Keep talking to people. Listen, listen, listen and read be-

tween the lines. Dig below the surface. Be super-observant. Look for connections. Examine relationships. Do your homework. There was always something new I could learn no matter what situation I was in. Each election I studied or was involved in had familiar themes and each one was different. Like snowflakes. The only real goal I had in mind was to raise enough public awareness to start a public debate so the problems could be *honestly identified* and framed in a manner that would produce genuine and long-lasting reform. To tell you the truth, I never really looked back until you asked me to do this interview.

30. Bottom-up Data Collection in Riverside County, CA

In addition to a Democracy Index, we also need to get to work on gathering election data for a Transparency Index and an Accountability Index for LEOs. Citizens have a pretty good head-start on gathering solid data in these areas. One of the groups that come to mind is SAVE R VOTE in Riverside, California, which was founded by Tom Courbat. SAVE R VOTE has written six citizen observation reports on six elections from June 2006 to November 2008 and submitted them to the Riverside County Board of Supervisors and state election officials. These reports detailing multiple and repeated violations of election procedures, chain of custody, security, transparency and auditability are well worth the read. I suggest starting with the report on the June 2008 election entitled *Broken Links* <http://electiondefensealliance.org/files/Broken_Chains_of_Custody_SRV_0608.pdf> and the follow-up report on the November 2008 election entitled *Missing Pieces* <http://electiondefensealliance.org/Riverside_Missing_Pieces>.



Their report on the June 2008 Election entitled *Broken Links* resulted in the county Board of Supervisors immediately commissioning a $165,000 outside *review* (It was *not* an audit.) that *failed* to require looking at two of the most important parts of the election process, and *failed* to ask these two questions. Did the numbers balance? No, they did not. What was going on in the central tabulating computer where all the vote totals are aggregated and reported? The auditors did not review the audit logs, events logs, etc. which would have indicated what was happening inside the central election computer while the county-wide precinct totals were being aggregated to produce the final election results. These critical deficiencies were obliquely referenced when the report stated, "… with respect to transparency of the ballot reconciliation process and other canvassing processes, the specific adequacy of the procedures cannot be determined without a forensic audit. [Emphasis

added.] The Audit (sic) Team did not conduct a forensic audit." Nonetheless, the Board of Supervisors paid the outside firm a total of $315,000 for this non-competitively-bid project awarded to the former Riverside County District Attorney and his firm.

So we went from the initial $165,000 for the review to the final $315,000? Where did the additional $150,000 in claimed costs come from? The report identified the culprit. "Involving SAVE R VOTE in the review process required hours of additional work and document analysis that was not considered in the original scope of work. As result, the cost of the audit (It was *not* an audit.) significantly exceeded the original contract." The 50+ page Executive Summary of the $315,000 report can be viewed at <http://www.clerkoftheboard.co.riverside.ca.us/agendas/2009/03_03_09/16.03.pdf>.

SAVE R VOTE's first report was on the June 2006 election and pulled no punches with the title *Riverside County CA Voting System Operations: Expensive, Insecure, Illegal, Unqualified and Unaudited* <http://electiondefensealliance.org/SaveRVote>. It was followed up with the hard-hitting November 2006 election report
<http://cfdtv.netrootz.com/web_pages/view_web_page.asp?Group=207&Page=543>.

These reports will give your readers a true sense of the level of professionalism, detail and dedication of this particular group of election integrity advocates.

COOK Report: So after all of this hard work, have the citizens in Riverside County seen any progress?

Waskell: SAVE R VOTE counts over 25 procedural improvements as a result of their constant scrutiny and willingness to report publicly. It's taken a lot of hard work to get this done. However, the Board of Supervisors continues to berate the current Secretary of State Debra Bowen as an obstructionist who is hamstringing a perfectly accurate voting and counting system. They're referring to the "obstructionist" fact that Bowen's Top To Bottom Review of voting systems in the state resulted in the decertification of Riverside's touchscreen system made by Sequoia Voting Systems. Bowen imposed additional security requirements for recertification or re-approval of Sequoia's voting system, and I'm sure the Board of Supervisors also considers this to be the action of an obstructionist.

The review conducted by the former Riverside County District Attorney and his firm stated that the "…ROV [The Registrar of Voters is the title of the LEO in California.] is in *general* compliance with *almost* all of the … re-approval conditions. However, 8 conditions were incomplete and require further review by the ROV and Secretary of State." The recommendation that the Board commission a forensic audit to determine the validity of the ballot counts has been ignored. So SAVE R VOTE started doing Public Records Act requests for copies of the central tabulator computer audit, security and event logs. But they've been met with delays, duplicity and incomplete and/or unreadable documents, which now requires that they take legal action to obtain election-related materials which by law are in the public domain.

In addition, the county ROV Barbara Dunmore has placed a one-year limit on the time anyone can serve on the Election Observer Panel, effectively ensuring there are no experienced election integrity advocates to question her actions. And the November 2008 election-copying project of approximately 25,000 pages of documents could have been completed in a week or so, but the

county limited the copying to only one day per week, thus dragging the project out to nearly more than two months.

At the state level, SAVE R VOTE has seen times when there's been a positive response to a specific issue that needed immediate attention, but the overall situation remains pretty much the same, i.e. the ROV can choose which laws to comply with...with impunity. This was confirmed when I attended the February 8, 2010 California Secretary of State hearing entitled *The Future of Voting in California* and Deputy Secretary of State Lowell Finley responded to a question from Los Angeles County Clerk and Registrar of Voters Dean Logan who asked, "Is there…assessment or review of those [conditions of re-certification] on a regular basis to indicate the effectiveness of those conditions…or are they effectively dealing with the vulnerabilities identified?" Mr. Finley responded, "… the answer is no. We have not…the budget or staff to be conducting these kinds of formal studies. We've relied on the feedback from county elections officials and pollworkers who often contact us directly." This is a pretty amazingly truthful statement. What he's saying is that the local election officials, the Registrar of Voters, basically self-certify that they are meeting all legal conditions of re-certification. Does this sound like an honor system?

The bottom line is that there is no, or incredibly limited, enforcement by the state of the election laws and the Conditions of Re-Certification of the voting systems in California. As a result, any county election official can ignore the very conditions that were placed upon them to safeguard the integrity of the vote and not have to worry about consequences. This is why I say that there's an urgent need for eternal citizen vigilance at the local level.

Now here's something I really don't understand. Remember how I've been talking about how super cost conscious election officials are, and especially the ones in financially strapped California? Well, at the February 9, 2010 meeting of the Riverside County Board of Supervisors, the Registrar of Voters Barbara Dunmore requested an additional $688,000 to get through June 30, 2010. The Board awarded this local taxpayer money to her without discussion. However, Sequoia owes Riverside County almost that amount under the terms of the recertification of the Sequoia system used by Riverside County. The terms of this recertification include an extra auditing/tally process the County has to perform...and Sequoia has to pay for it. But the County hasn't aggressively pursued the receipt of these legally-required private funds. In fact, one Board member commented that it looked like Sequoia was "the victim" here, and perhaps the County should sue the Secretary of State for the extra costs associated with extra auditing/tally requirement. It looks like the relationship between the County and Sequoia may be too cozy, and the ultimate cost will fall to the local taxpayers.

And speaking of someone who needs funds. I was talking with Tom Courbat, the founder of SAVE R VOTE, very recently and he commented that without adequate funding, the citizen efforts in Riverside County will wither and be thwarted by recalcitrant election officials. What is needed now, he said, is a pool of grants and donations specifically designated for citizens to closely monitor and report on election operations in their counties and to push for voluntary compliance. As necessary, these funds will be used to file litigation to force compliance with existing election laws and conditions of certification. Funding of $10 million or more would be needed to monitor key locations throughout the US. Riverside County would be a good starting place. Donors wanted!

So we have a situation where citizens are being forced to spend money to force recalcitrant election officials to comply with the law. Sounds like something out of a Franz Kafka novel, but this

situation is commonplace in the world of elections. It is not the rare bird one would think.

The main point I wanted to make when talking about the excellent work done by SAVE R VOTE is that if we want an accurate and comprehensive measure of the performance of LEOs, including accountability, we need a grassroots bottom-up approach to gathering election data to complement the government and the academics' top-down approach. Otherwise, we're going to have a very incomplete data set that's skewed toward election data from only one source, i.e. the election officials. It's as if we were collecting data about the healthcare of veterans and only collected data from the doctors and not from the veterans themselves.

At this point I thought I'd say something about what's going on in San Diego, since we're talking about southern California...part of that earthquake territory that Willis Ware of the RAND Corporation talked about in his 1987 paper from the Captiva Island workshop. But all I want to say about San Diego is that the Registrar of Voters there is Deborah Seiler. Remember her? She was the person in the California Secretary of State's office that I talked to way back in May 1985. After many years in Sacramento, Seiler went to work for Sequoia Voting Systems, and then as a sales representative for Diebold from 1999 to 2004. She sold $30 million in Diebold equipment to San Diego. Since May 2007, she's been the trusted public servant in San Diego County who runs elections. Need I say more? Oh, and San Diego's second in command election official is Michael Vu, who "resigned as executive director of elections for Ohio's Cuyahoga County, which includes Cleveland, after a tumultuous, 3 1/2-year tenure that included a disastrous May 2006 primary in which the county began using new electronic voting machines."

There are other California election officials who have left the wonderful world of public service and gone to work for a vendor, but I won't list all of them here. And California is not the only state where you see this type of job hopping take place.

But all I want to say about San Diego is that the Registrar of Voters there is Deborah Seiler. Remember her? She was the person in the California Secretary of State's office that I talked to way back in May 1985. After many years in Sacramento, Seiler went to work for Sequoia Voting Systems, and then as a sales representative for Diebold from 1999 to 2004. She sold $30 million in Diebold equipment to San Diego. Since May 2007, she's been the trusted public servant in San Diego County who runs elections. Need I say more?

31. Inside the Last Bastion of our Democracy: the Central Computer Room

What happens on election night in the central computer room?

Waskell: Let's be clear about exactly what takes place in the central computer room on election night. This is where the consent of the governed is given, or taken away. This is the room where the keys to the kingdom are passed from one candidate to another. This is the room where it's ultimately decided whether our government will be legitimate, or not. And it's the computer operator who holds the position of supreme power in this room. This is the person who *knows* the details of the full range of capabilities of the proprietary software that resides on the computer on election night, and this person *knows how to use them in real time*. Absolutely no one in the state's department of elections or secretary of state's office has anywhere *near* this type of hands-on knowledge about the proprietary voting systems that the state certifies.

What else can we say about this room? Only authorized personnel are allowed in it, i.e. the local election official (LEO), designated county employees and representatives of the vendor. A vendor rep is often at the controls of the election computer on election night and helps out in many other ways. Authorized personnel have unrestricted access to the room 24X7 in the days and/or weeks leading up to the election. Typically this room is entered with a key card and a log is kept of the people who come in and out of the room. The log is rarely, if ever, inspected. Sometimes the log is overwritten on a regular basis, an activity which destroys the record from election night.

***This is where the consent of the governed is given, or taken away. This is the room where the keys to the kingdom are passed from one candidate to another. This is the room where it's ultimately decided whether our government will be legitimate, or not. And it's the computer operator who holds the position of supreme power in this room. This is the person who* knows *the details of the full range of capabilities of the proprietary software that resides on the computer on election night, and this person* knows how to use them in real time.**

The people in this room may or may not be wearing name tags with their name and affiliation clearly legible from a distance. Name tags can at any time be turned over so it's impossible to read them. This can and does happen. It tends to happen when there's a problem with the election computer or other equipment in the room and an unknown person enters the room and corrects the problem. The unknown person can correct the unknown problem in an unknown manner with an object taken out of their pocket, like a punch card that would be inserted into the control deck of cards in the old days, an action that changed the instructions of the vote-counting program.

Nowadays the object that corrects an unknown problem is frequently a memory card that is inserted into one of the troublesome card readers, for example. Or this unknown person can walk over to the election computer, type something on the keyboard, stay there as long as necessary, and then leave the room. If any election observer asks the LEO who this unknown "corrector" was, the LEO is under no obligation whatsoever to reply. The unknown person remains unknown—unless citizens later invest their time and energy in uncovering the identify of the "corrector."

The monitor for the election computer is usually placed off in a corner away from the glass window where observers stand. If an election observer brings binoculars in an attempt to see what's on the screen—maybe the monitor is at an angle that allows a partial view—that person will likely be immediately required to leave. If someone asks the LEO to make a very minor technical adjustment to the monitor in the computer room so that a copy of the screen shots can also appear on a second monitor that election observers can actually see, this request will be denied. Thus, for all practical purposes, the computer operator is the only person who views the screen.

The use of recording devices or video taping of any kind is strictly prohibited. This rule is always consistently and vigorously enforced. Any equipment someone dares to bring to the election observation area will be confiscated.

What else about the election observers? They can only watch through the glass windows(s). They are unable to hear what goes on inside the counting room. If they see an authorized person with their name tag turned over, and they know that doing this is against a written policy because they have a copy of the policy in their hands, they may choose to tell the LEO about the violation. The LEO may choose to ignore them. If election observers bring binoculars and the computer operator's monitor *can't* be viewed in any way, then the use of binoculars is probably okay. When something clearly goes wrong or there's some kind of unexplained delay in processing the ballots, memory cards or cartridges from the precincts, people inside the room can and do position themselves in such a manner that election observers are unable to see what's happening. The use of recording devices or video taping of any kind is strictly prohibited. *This rule is always consistently and vigorously enforced.* Any equipment someone dares to bring to the election observation area will be confiscated. Frequently there are surveillance cameras in the observation area. The footage is always in the possession of the county, so it is can easily be erased, written over or destroyed and there is no way for an election observer to prevent this from happening.

There may or may not be a surveillance camera in the computer room. If there is, it's always in the possession of the local jurisdiction so any potentially incriminating footage can always be erased. Camera or no camera, there is certainly no complete, permanent and publicly inspected record at all of the most critical events that take place in the room on election night. Airplanes have flight recorders so we know what happened in the cockpit in case of a plane crash. There is no equivalent comprehensive record—or anything closely resembling it—of what the computer operator does in the cockpit of elections on election night. None. There is no black box or other device to record audio and, say, all of the keyboard keystrokes. The only black box in the room is the election computer that aggregates all of the individual precinct totals to produce the winning numbers, i.e. the

summary vote totals for the entire jurisdiction.

The election computer generates an audit log. Gaps in the audit log as long as 60 minutes are acceptable. They are not explained; they are just accepted. Any investigation of the gap usually leads to a dead end, hence the lack of an explanation. Throughout election night, there may be more than one person at the keyboard of the election computer. For example, someone may have to assist the computer operator when there's a glitch in the vote-counting program. The election computer may have to be shut down and restarted. The audit log will show who did what at what time because the system is set up so that each user has a unique identifier when they log onto the computer. I'm sorry. My mistake. Not all voting systems from the major vendors are set up that way. In some systems, everyone who logs on shows up as "admin" on the audit log so there's no way to tell *who* did what and when. Citizens have been publicly complaining about this feature for many, many, many years. Their complaints have been ignored for many, many, many years.

There may or may not be a surveillance camera in the computer room. But there certainly is no complete, permanent and publicly inspected record at all of the most critical events that take place in the room on election night. Airplanes have flight recorders so we know what happened in the cockpit in case of a plane crash. There is no equivalent comprehensive record—or anything closely resembling it—of what the computer operator does in the cockpit of elections on election night. None. There is no black box or other device to record audio and, say, all of the keyboard keystrokes. The only black box in the room is the election computer.

Cheer up! Here's a bit of good news. In November 2009 I decided to be an election observer on election night in Marin County, which has 120 precincts. What an experience of transparency in action! I could observe whatever part of the process I wanted. (Yes, I do realize that the counting was concealed.) The LEO and/or their staff escorted all of the observers to the ballot receiving station when the optical scan ballots from the precincts (and the cartridges containing the vote totals) arrived downstairs. I saw a series of long tables where people sat and took the cartridges out of plastic bags. I couldn't see around the corner at the far end of the room. No problem. Someone took me there so I could see what was happening. Every question I asked about *anything* was answered, and if someone didn't know the answer, I was immediately taken to someone who *could* answer it.

Up in the main office, I put my nose right up against the window of the small computer room to have a close look at the screen of the Windows-based PC that was the election computer. The screen was not that far away from the window and it was facing me!! This is an extremely rare

event in an election and I was proud to be a part of it. While my nose was pressed against the window of the computer room, no one told me to get away from the window. No one put a hand on me. When the computer operator was waiting for another batch of cartridges to process, he came out of the enclosed room and I was able to ask him a bunch of questions that he gladly and thoroughly answered. I was taking notes as I always do. The computer operator was not wearing a name tag but all of the election observers, including myself, knew his name. The main point I want to make is that the LEO and the election staff were all acting like they had nothing to hide. It's just my perception of what I observed all through the evening, but perception means a lot.

Now I realize that in a jurisdiction with 500 precincts or 1,000 precincts or 3,000 precincts would have a different type of election observer management system in place. But whatever system is in place has to be a free-range system, i.e. election observers should be able to go wherever the ballots are being handled and they should be able to closely and clearly and constantly see what's happening in the computer counting room. That's where the action is, baby, and don't let anyone keep you away by wrapping themselves in the flag and saying things like, "You can't see or know what happens in here because this is a secure area for authorized personnel only and the authorized personnel are protecting the integrity of the election. Get out of here and let us do our job."

"The feeling in the [voting system] industry is that there are so many easier ways to affect an election that tampering with the tabulating software doesn't really make sense."

- Penelope Bonsall, quoted in* Electronic Elections Seen as an Invitation to Fraud *by Wiliam Trombley, The Los Angeles Times, July 4, 1989

32. Framing a Solution for a Seemingly Intractable Problem

COOK Report: Is there any other way you see to frame what sounds like an intractable problem?

Waskell: It certainly can be framed as a human rights issue, i.e. the public's right to know, the public's right to a public vote count, the public's right to observe all critical aspects of an election. This is a something that's not being discussed.

My present thinking is that this is also an ethical problem. I don't want to get philosophical here, so I'll just say that by ethics I mean a consideration of what a person does when no one is looking. For years I've closely followed Larry Lessig's blog and his critical thinking. He's absolutely brilliant in how he frames and talks about the issues he feels passionate about. I especially like his definitions of independence and dependency. I've learned an awful lot from reading his books and watching his Keynote presentations. He speaks about lobbyists and the economy of influence, the pernicious influence of money in political campaigns, and he sees solving the corruption of Congress as "the first problem." He is correct in saying this...but only partially correct because I think that solving the election integrity problem, specifically the integrity of election results problem, *precedes* what Lessig calls "the first problem." It's really the preamble to the first problem. Election integrity is a much, much harder problem to talk about openly and honestly. It's the crazy aunt in the basement who surfaces whenever there's an election. We hope and pray no one will notice her. Heaven forbid we confront her about her condition and insist she get help!! If someone does notice her, we call *that person* crazy and/or simply ignore them. Once the election results are certified and any election challenges are put to bed, the crazy aunt descends again into the nation's cellar of dirty secrets.

I found it very interesting that Lessig is now director of the Edmond J. Safra Foundation Center for Ethics at Harvard. The center is currently accepting applications for research projects regarding institutional corruption, which Lessig defines as "a certain kind of influence, within an economy of influence, that either weakens the effectiveness of the institution or weakens the public trust of an institution." Ah, the public trust of an election outcome. In my opinion, there's a solid case to be made that the "institutions" of state and county election departments may need to be *objectively* studied with this definition of corruption in mind. Who is influencing whom in these election departments? Whose interests are really being represented and served? This is an area of scientific research that could easily degenerate into a political hot potato but I'd like to see it seriously, rationally and professionally explored at some point.

Another ethical element that caught my eye was a September 13, 2009 article by Gretchen Morgenson in *The New York Times* entitled *But Who Is Watching Regulators?* She mentioned "an idea of Edward J. Kane, ... an authority on the ethical and operational aspects of regulatory failure, on how to hold [financial] regulators accountable when they perform as poorly as they did in recent years." Kane suggested that financial supervisors take an ethical oath of office to basically do their job; he listed their four duties. The last duty was the duty of "conscientious representation," which was described as "regulators swear to put the interests of the community ahead of their own."

So who are the regulators of elections? Let's first remember that *there is no effective national or state regulatory body per se for elections. None.* The Election Assistance Commission (EAC) is definitely *not* a regulatory body in *any* sense of the word, and neither is the EAC's Technical Guidelines Development Committee (TGDC) as the vendors falsely claim. The TGDC is purely advisory and has no enforcement power whatsoever when it comes to non-compliance with its guidelines. The EAC can write a letter scolding a vendor for naughty behavior, and it has done so on several occasions. But the EAC has no mandate, legal or otherwise, nor do they have the resources, to always follow-up to verify that their scolding has been effective and that their recommended course of corrective action has actually been properly implemented. NIST is finally getting involved here to some extent but basically the EAC "regulation" functions more like an honor system.

So who are the regulators of elections? Let's first remember that there is no effective national or state regulatory body per se for elections. None. The Election Assistance Commission is definitely not a regulatory body in any sense of the word, and neither is the EAC's Technical Guidelines Development Committee as the vendors falsely claim.

Furthermore, it has primarily been by sheer accident or by the diligent and hard work of pro-active citizens, not pro-active election officials, that the vendors' repeated non-compliances with the Voluntary Voting System Standards (the technical guidelines) have been uncovered. Nevertheless, it's extremely revealing to read the vendors' perspective regarding what they (incorrectly) perceive as a "regulatory" process that is broken (It's non-existent, not broken.) and what policy recommendations they have for the EAC. This 15-page June 18, 2008 report by the Election Technology Council, "a trade association of the leading voting system manufacturers representing over 90% of the voting systems used in the United States," and whose tagline is "Working Together for Secure and Accurate Elections," has an executive summary that will give you a flavor of the vendors' thinking <http://www.electiontech.org/documents/ETC-BROKEN.pdf>.

COOK Report: What about the perceived regulation at the state level?

Waskell: *Effective* regulation (and enforcement) is what's needed at the state level. But too often we see that the secretary of state's office, or its equivalent, has undergone "regulatory capture" by the vendors much like what's happened at state PUCs (Public Utility Commissions) in telecom. And typically the state election office lacks the resources, the people power, and the technical expertise to monitor much of anything really. There will be occasional isolated, narrowly targeted and heavily publicized spurts of monitoring, but that's about all. Very few state election offices are equipped to monitor statewide compliance with the federal voting system standards, for example. Furthermore, the state certification process itself is inadequate in this regard; flawed and unreliable systems have repeatedly been certified.

Now let's suppose that a group of citizens perform due diligence and point out, officially report or

document some kind of violation or non-compliance at the local level. More often than not they'll get the run-around when they bring these concerns to the state level. "Take it to the local district attorney's office," the citizens might be told. Well, that's a death sentence for any kind of a thorough investigation. I've watched this death penalty played out at the local level again and again and again. And at the state level, there's no political will to enforce the election laws that are already on the books, especially when it comes to meaningful election monitoring and observer access, for example. What we need is a People's Election Sheriff! The state level bureaucracy also continues to this day to defend the private interests of the vendors and not the public's right to a public vote count and the public's right to know, i.e. transparency. On the other hand, one political party will purposely sabotage a secretary of state from another political party when that state official genuinely attempts to do the right thing. And if a secretary of state plans to run for governor, which happens frequently, then this person is going to be very cautious about what their office puts forward in the way of election reform. Notice that the interest of the voters is not a part of these political calculations.

Next we have to ask, Is there effective regulation or meaningful oversight at the local level? No. State officials *generally* let the local officials do their own thing; and there's almost always strong push back from the local level when the state officials do in fact try to do their job. The first battle cry from the LEOs is typically, "This will cost too much money and take too much time!"

But the local level is precisely where the real power and control over elections takes place and this is where to start, i.e. with LEOs taking an ethical oath of office. A *rewritten* oath of office I should say, a modification of the oath of office they already take. (I realize that holding people accountable for this oath and enforcing it is another matter entirely.) In short, the duties of local and state election officials would better serve election integrity and increase trust in election results if these public servants would truly and consistently represent the interests of the voters and not the interests of the private companies that provide election equipment and services.

COOK Report: How do you think the idea of an oath to specifically perform your duties and Edward Kane's idea of "conscientious representation" would be received by election officials?

But the local level is precisely where the real power and control over elections takes place and this is where to start, i.e. with local election officials taking an ethical oath of office. A rewritten oath of office I should say, a modification of the oath of office they already take. In short, the duties of local and state election officials would better serve election integrity and increase trust in election results if these public servants would truly and consistently represent the interests of the voters and not the interests of the private companies that provide election equipment and services.

Waskell: It might be considered a pretty radical idea for the world of election administration where the unwritten rule is "trust us, we know best," instead of "trust, but verify." This unexamined doctrine of "trust us, we know best," originally surfaced in the relationship between the vendors and the election community when computers were first used to count votes. You put an IT system in the hands of people without technical expertise and that's what happens. And no one saw it coming?? And remember that the regulatory environment for the vendors of voting equipment in the 1960s was non-existent. Not *virtually* non-existent. But absolutely non-existent. Zip. Nada. No one was looking over their shoulder at anything they did. Right from the very beginning, states certified voting systems and *never* did a line-by-line examination of the source code; they bowed to the demands of the private companies. And elected officials everywhere looked the other way while the "trust us" doctrine took hold and got firmly rooted in the psyche of election administrators. It's their dominant worldview.

So given this entrenched belief system, perhaps we'd have to start with ethical baby steps. Take recounts and election contests, for example. I remember that way back in the 1980s, David Stutsman was the first person I heard talk about the idea of having an election official take an oath, or swear under penalty of perjury, that the ballots to be recounted were the original and unmodified voted ballots. It made perfect sense to me then and it still does today. If you're not absolutely guaranteed that you're recounting or contesting original ballots, what's the point?! Without this official assurance, what you end up with is a feel-good activity without any real meaningful contribution to the public's trust in the outcome of the election.

I remember that way back in the 1980s, David Stutsman was the first person I heard talk about the idea of having an election official take an oath, or swear under penalty of perjury, that the ballots to be recounted were the original and unmodified voted ballots. It made perfect sense to me then and it still does today.

And come to think of it, a rewritten oath of office to perform ones duties in the interest of the voters and not the vendors might serve as a litmus test whereby some election officials might not have a problem with it at all and others might be extremely defensive or even offended. It would be interesting to see which election officials self-select and accept the idea and what arguments are put forth for *not* accepting it. But regardless of what kind of change you wanted to make in election administration, I would think you would want to start with the people most receptive to a new idea, make heroines and heroes of them, and the others would follow suit...eventually. Hopefully. The whole thing would be played out in the context of the local political culture, of course.

33. Progress Toward Solutions and How to Overcome Obstacles

COOK Report: So are you concluding that if we are going to make any progress, it has to happen independently of Congress and the state lawmakers?

Waskell: Not necessarily. What Congress could do right now—but won't—is require states to have uniformity in things like processing provisional ballots, ballot design, the matching formula used with voter registration databases, or standards for what a vote is (like Washington state already has). Congress could also require the states to have detailed rules for recounts, like Minnesota already has, and require these rules to be continually updated and refined. This will *never* happen because it would limit the power of the attorneys who represent the candidates in these election contests and who know how to game the system for the benefit of their client. That's their job during a recount! As far as the voters and general public are concerned, having detailed recount rules spelled out *ahead of time* would give them more reason to trust the recount results. So which way do you think this is going to play out?

There are also two main problems with any federal legislation, unintended consequences and ensuring that the legislation does no harm. That's very difficult if not impossible to control, given the powerful influence of lobbyists, the economy of influence, and the corruption of Congress, all of which Larry Lessig writes and talks about so eloquently. These same concerns are relevant when you talk about state legislation. And remember that state lawmakers have had since 1964 to do something about all of these problems I've been talking about and they haven't succeeded. Our elections were first legally privatized—at the state level! When punch card systems first came into use, one state legislature right after the other eagerly embraced the idea of protecting the vendors' intellectual property. Undoing the damage may also have to be done one state at a time.

COOK Report: Then what in your view is the solution?

Waskell: There is no one solution. No silver bullet. It's a complex problem and it will require a complex suite of solutions. The problems are too vast, complex, and deeply entrenched in the culture and political traditions at the state and local levels. What it will take is never-ending, incremental improvements to continually solve the problems that themselves will continue to change.

But first things first. Let's honestly define the problem. We haven't done that. *And it's vital that all stakeholders be at the table on an equal footing when this problem definition process happens.* Stakeholders include well-informed, dedicated citizens who need to be *equal partners* in this process They have valid concerns that have yet to become an integral part of the election reform dialogue going on primarily among election officials, computer experts, academics, and public interest organizations. "We the People" are nowhere in sight.

None of this is going to happen without transparency and accountability. These come first. Without transparency there can be no trust. Without accountability there can be no trust.

But first things first. Let's honestly define the problem. We haven't done that. **And it's vital that all stakeholders be at the table on an equal footing when this problem definition process happens.** ***Stakeholders include well-informed, dedicated citizens who need to be*** **equal partners** ***in this process. They have valid concerns that have yet to become an integral part of the election reform dialogue going on primarily among election officials, computer experts, academics, and public interest organizations. "We the People" are nowhere in sight.***

Right now it's mainly citizens who are on the transparency/accountability bandwagon because they're out in the field seeing with their own eyes how much of the election process is actually hidden from view and how LEOs can easily disregard the law and get away with it. Citizens feel that their right to a public vote count is being violated, and it is. The counting is concealed. This is why public access to voted ballots is paramount and the one single thing that can most readily restore trust in the outcome of an election. This is why I feel so strongly about the two election transparency projects I mentioned that put voted ballots online on election night. This needs to be one of our highest priorities, i.e. giving LEOs the tools they need to do *their job, i.e. to prove that election results are accurate and honest*. Citizens are *not* forcing local election officials to prove a negative, i.e. to prove that election fraud did not occur. This incorrect framing of the situation comes from the Election Technology Council, the voting system industry equivalent to the American Bankers Association. Citizens want LEOs to do their job, and using transparency tools to put voted ballots online on election night will help them accomplish this.

None of the improvements in election administration being discussed by any person or organizations are going to happen without funding. A sustainable means of funding. This is a part of the puzzle I have no clear answer for, but the power of the purse has *a huge role* to play in election reform. It's time to think out-of-the-box. Daniel P. Tokaji, an Assistant Professor of Law at Ohio State University Moritz College of Law, has a good idea that's gotten some traction—give the counties money in exchange for data about elections. His October 18, 2005 article entitled *The Moneyball Approach to Election Reform* explains how it works <http://moritzlaw.osu.edu/electionlaw/comments/2005/051018.php>. Bottom line: we have to put our money where our mouth is.

Where *is* our money going? Let's compare this year's Pentagon budget of about $660 billion to this year's budget for *all* of the election departments in the 10,000 local jurisdictions and the 50 state offices around the country. I don't have a calculator, so let me just sketch something here on the back of an envelope...and...it's...ahhhh...let's see...cost per registered voter is...and...we've got tanks, body armor, boots...ballot boxes...aircraft carrier is about...and the price of un-manned drones is dropping so...almost done here...and I can't leave out these two big tickets items...pollworker training and fighter jets...no discount on the jets, I'm afraid...oooops, printing voter pamphlets will cost more than that...sooooo...AK-47s...cheaper by the dozen...those "I Voted!" stickers are a must-have...and so a rough comparison would be...that...this is pretty sketchy now...ahhhh...the difference between the Pentagon's annual budget...and the budget for all the election departments is...uh-oh, I forgot to figure in the cost of night vision goggles, helmets, hand grenades and the—forget it...this is just an estimate. The difference between the two budgets is like the difference between *Tyrannosaurus rex* and a subatomic particle. I've made my point.

On a much more serious note. Many local jurisdictions and/or states around the country, especially those that have military installations, have a program called Vote in Honor of a Vet. The goal of the program is to increase voter participation as a way to honor and recognize the sacrifice of those who protect democracy. In other words, the simple act of voting becomes a way to pay tribute to America's military men and women. Participants in the program can wear a personalized button that has the name of a veteran. It's a wonderful program! It should be expanded. We could Make Ballots a Public Record in Honor of a Vet. We could Promote Genuine Transparency in Honor of a Vet. We could Test Voting Systems in Election Mode and Not in Test Mode in Honor of a Vet. We could Enforce Election Laws in Honor of a Vet. We could Hold Election Officials Accountable in Honor of a Vet. We could Give Citizens an Equal Voice in Honor of a Vet. We could Count Votes in Public in Honor of a Vet. We could Give Election Officials Transparency Tools in Honor of a Vet. We could do so much more to honor veterans and those who serve.

On the other hand, we can't just throw money at this problem and expect to solve it. Money is necessary but not sufficient. We need a change in attitude and mindset. We need commitment. We need leadership. But above all we need to take a good hard look at the remaining invisible problems we face in running elections and ask the hard questions. We're not there yet by a long shot. And perhaps we'll never be able to accomplish this kind of national soul searching and truth-telling. But this much is certain. "Our secrets will keep us sick." A wise man said that in reference to individuals, but our secrets will also keep us sick as a nation.

In my opinion, a combination of honesty, transparency and accountability is essential if we're going to restore and retain the public's trust that has been eroded by 45 consecutive years of incredible neglect and mind-boggling complacency. As Mae Churchill of Election Watch always said, "We must demand the changes we need." Unfortunately, the general public isn't engaged at all in election reform or even *aware* of the nature and extent of the problems in the way that well-informed citizens are. So the general public isn't making the kind of demands that Mae Churchill had in mind. Hopefully, the demands for the necessary changes will arise one day soon. And when they do, we'll have to face the music and all work together to make those changes happen.

"Democracies die behind closed doors."

- Judge Damon Keith in a 2002 federal appeals court ruling

COOK Report: Are there any closing comments you'd like to make?

Waskell: I'd first like to thank you for the opportunity to share my experiences and observations with your readers. And then I'd like to emphasize that what I've said here has left out many, many details and many of the dedicated people from all walks of life who deserve mention for the hard work they're doing in the area of election integrity. I am very grateful to them all for their...eternal vigilance in action. That's really what it is. And I feel like for each paragraph, and frequently for each *sentence*, I could talk for an additional 15 to 30 minutes and give a richer and fuller context for what it is I'm trying to explain. The devil is definitely in the details. But my purpose here is not be to devilish and not to over simplify. I just want to give a broad overview and cover some of the highlights, not the subtleties, of a vast, enormously complex, arcane and potentially boring, but politically sensitive issue. The fear I have is that something I've said here will be taken totally out of context and/or totally misinterpreted. But that's the chance I'm taking. No risk, no reward. Thank you again for allowing me to tell my story. Remember to vote. And show me the ballots!

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