



**The Fourth Annual
William G. McGowan Forum
on
Communications, Technology,
and Government**
Technology, Elections, and Electronic Voting

October 17, 2008

Ensuring that voting systems accurately record and report voter intent has become a matter of great public concern since the 2000 confusion in Florida. Much of the public debate has centered on the security of electronic voting systems. Are these concerns valid? What are the advantages and disadvantages of electronic voting systems? What can the U.S. learn from experiences with new technologies around the globe? Brookings Senior Fellow Thomas Mann moderated a panel including Donetta Davidson, Vice Chair, Election Assistance Commission; Roy Saltman, author, *The History and Politics of Voting Technology*; Patrick Merloe, director, Electoral Programs, Democratic Institute for International Affairs; Paul DeGregorio, former commissioner, Election Assistance Commission; and David Beirne, director, Election Technology Council.

ALLEN WEINSTEIN: Good evening.

AUDIENCE: Good evening.

WEINSTEIN: I can't hear you. Good evening.

AUDIENCE: Good evening.

WEINSTEIN: A little better. Welcome to the National Archives and to the William McGowan Theater, and welcome to all of those watching us on C-SPAN. I'm Allen Weinstein. I'm the Archivist of the United States, and tonight, we welcome the Fourth Annual William McGowan Forum on Communications, Technology, and Government. As you may know, this theater was made possible by the generosity of William McGowan's Charitable Fund, working through the Foundation for the National Archives. Since it



opened in 2004, the theater has become a very special venue, a very busy venue for film screenings, lectures, symposia, conversations with notable Americans, and other public events. Visitors to the Archives first enter this theater to view a brief introduction film before continuing on to the rotunda, the public vaults, and other special exhibits, but you start here with that film. All the events that keep this theater so busy help us pursue one of the National Archives' major strategic goals, and that is to raise the level of civic literacy of our citizens by drawing lessons from the past through historical records to meet increasingly complex current and future challenges. Tonight's program features a distinguished panel discussing technology, elections, and electronic voting, a subject that could not be timelier and which complements the Archives' civic education efforts. Before I turn to introduce him, our next speaker, I would--should share with you--it's so close to election, how can you not--how can I resist the temptation to share with you several--one or two comments on election processes?

This is Walt Whitman: "I know nothing grander, better exercise, better digestion, more positive proof of the past, the triumphant result of faith in humankind than a well-contested American national election." So said Walt Whitman. "Looking back, I'm content win or lose, I've told you the truth as I see it, I've said what I meant and meant what I said, I have not done as well I should have liked to have done, but I have done my best frankly and forthrightly. No man can do more, and you are entitled to no less." That was Adlai Stevenson. But this is my favorite. Some of you who've been here before know my penchant for novelists. This is George Eliot: "An election is coming, universal peace is declared, and the foxes have a sincere interest in prolonging the lives of the poultry."

[Laughter]

Now I'm very pleased to introduce Patrick Butler, the Vice President of the Foundation for the National Archives. Pat is Senior Vice President of the Washington Post Company, was an aide to both President Gerald Ford and Senate Majority Leader Howard Baker. Pat has over a quarter century of experience in the communications industry that Bill McGowan did so much to revolutionize. Pat.

PATRICK MERLOE:: Thank you, Allen. It's a special pleasure for me to be here tonight, both to represent the Foundation for the National Archives and especially to introduce Sue Gin McGowan. The mission of our foundation is to extend the reach of the National Archives far beyond the elegant borders of this building to thousands of classrooms and millions of homes around the country. Our goal is to educate America about the historic significance and current relevance of the charters of freedom enshrined here, the Declaration of Independence, the Constitution of the United States, the Bill of Rights, but also the nearly 10 billion other documents and records kept in the Archives' care. This work is greatly enhanced by the technological revolution begun by William McGowan more than 40 years ago. It was Mr. McGowan's vision to bring competition and innovation to the world of telecommunications, a world that had been dominated by a single giant



company for more than a century before Bill shook things up, and the fulfillment of that audacious vision can now be seen in the hundreds of communications products and services that define so much of our lives in these early years of the 21st Century.

In that sense, Bill McGowan is a founding father, and as such, he would feel right at home here with Washington, Jefferson, Madison, Franklin, and all the other giants of earlier ages who are celebrated here. True to his vision, the William G. McGowan fund has played a major role in the National Archives' outreach programs over the past 5 years. The magnificent \$5 million William G. McGowan Theater in which we gather tonight is only the most obvious example of that commitment. The McGowan Fund has also underwritten a major initiative to public programming here at the archives, and this annual William G. McGowan Forum stands at the pinnacle of that programming. I had the good fortune to know Bill McGowan and many of his colleagues from the old days at MCI, and I know that he and they would be proud of what the National Archives is doing in his name this evening. It is my honor now to introduce the wonderful woman who shared his life and carries on his legacy. She is an accomplished business executive in her own right, running an in-flight catering business in Chicago that serves 80 international airlines and a major real estate company for good measure. She serves on many corporate and charity boards, but we at the Foundation for the National Archives are particularly grateful that she is president of the William G. McGowan Charitable Fund, which is the benefactor of all that you will see and hear tonight. We are also grateful here to have so many of the William G. McGowan Scholars, of which there are 500 around the country, gathered here with us this evening. So, ladies and gentlemen, it is my great honor to present to you Mrs. Sue Gin McGowan.

[Applause]

SUE GIN MCGOWAN: On behalf of the William G. McGowan Foundation, it gives me great pleasure tonight to welcome you. It is a special night for us because every year we come to Washington to hold our board meeting here, and we invite our William G. McGowan Scholars, the alumni, and guests to come and visit here in Washington. This is the fourth forum that the William G. McGowan has had here in Washington, and we have developed in the last year another forum that we call Women in Leadership. We're really very proud to be partners with the National Archives in developing new ideas and bringing people together. This is really a highlight of the William G. McGowan Foundation, so I would like to thank you all for coming and look forward to this wonderful forum that we're going to talk about that is so timely for today. Thank you.

[Applause]

WEINSTEIN: Thank you, Sue Gin, who has--who has by the way become one of the real presences in Washington. We appreciate all of the good work that you do for us and elsewhere. Well, let me introduce now the moderator of our panel. This is a community



filled with opiniers of one sort or another, some better than others, but there are very few folks in the community who are living presences, who create realities, who basically manage to sort of move the ball along and bring us into better clarity on the world in which we're living. One of the few major figures in this regard is with us tonight as moderator of our panel, Tom Mann, well-known here in Washington as one of the foremost experts and observers of United States Congress, government, politics, and much else.

Tom is currently the W. Averell Harriman Chair and Senior Fellow in Governance Studies at the Brookings Institute. He's currently working on projects ranging from redistricting, election reform, campaign finance, and congressional reform. That's only on Monday.

[Laughter]

He's often called upon by the news media to explain how the House and Senate manage to get things--how they work. I was going to say something else. How they work, what is really happening on Capitol Hill. Well, Tom, actually, I think we're all interested in what's really happening, not just on Capitol Hill but elsewhere in town and what this means for all of us today, and so, ladies and gentlemen, it's with enormous pleasure that I give you Tom Mann.

[Applause]

TOM MANN: Much better than Tom Mann, you get the sterling cast for our panel today. I'm delighted to have the opportunity to moderate this session, to be at this symposium, to be in this gorgeous theater. It is just lovely, and I'm delighted to have the opportunity to come together with many old friends and colleagues who care deeply about the conduct of our elections. Let me first briefly introduce each of our panelists. Then I will say a word or two to set the context for our discussion. Then each of them will respond to the charge for the evening. Then we'll have a little conversation amongst ourselves, and finally, we'll get to the main business of the evening, which is to turn to you and see what questions you would raise with our panelists. I'm going to begin immediately to my right and move across. The bios are in the program, so I don't want to take time in listing all of their accomplishments, but we're happy to have Donetta Davidson here, who is now Vice Chair of U.S. Election Assistance Commission. She served as chair in 2007. She came to EAC from Colorado, where she served as secretary of state. Next--Donetta has laryngitis. I'm just warning you right now, and ready to step in and provide a backup is Matthew Masterson, who is a testing and certification program assistant at EAC, and we're delighted Matt is with us. To his right is David Beirne, who serves as Executive Director of the Election Technology Council, which is a trade association representing almost all of the voting systems used here in the United States. We then turn to Roy Saltman, who is the senior figure in this world, the guru, a man who has been very deeply involved in issues pertaining to voting technology for over 30 years and is the author of "The History and Politics of Voting Technology." Next to him is my friend Patrick Merloe. Patrick Directs



the electoral programs for the National Democratic Institute For International Affairs, what we all call NDI, and all the way at the end--but we'd never miss him--is Paul DeGregorio. Paul served as commissioner and chairman of the EAC early on. Before that, spent years with the International Foundation For Election Systems, and is part of this policy community along with everyone else here that keeps the issues front and center on the public agenda here in Washington and around the world.

Now we were all innocent before November 2000 in Florida. Even supposed experts like political scientists knew so little about how we actually administer our elections, how we cast our ballots, how they're reported and counted. It was a revelation to many of us, certainly most citizens in the country, although less so to the experts around this table, but it set in motion a series of efforts at the state level, at the county level, and in Washington to try to bring some improvements to a system that is highly decentralized, amazingly diverse. No one can understand that we don't have a, if you will, a uniform national ballot for federal elections. We have many ballots that vary across the states and many, many different systems of voting, but coming out of the controversies of 2000 was a desire, I think, on behalf of policy makers and citizens to ensure that votes are properly cast and accurately recorded and reported. It's absolutely essential to the functioning of a healthy democracy. Here we are 17 days before an election, although I should say that the balloting has been going on for weeks through early voting and absentee balloting, but numerous controversies have arisen, ranging across a whole host of election administration issues, starting with matters pertaining to voter registration, and we've certainly seen a number of legal battles already enjoined with more certain to follow. This evening, we're not going to deal with all of those controversies. We're going to look at one particular aspect of it, namely the accuracy and security of electronic voting machines and systems more generally. As you know, this has been a source of controversy in this country for a couple of years. There are new groups that have formed to deal with what they think as the tremendous vulnerabilities in the system, and we've had responses by states.

Today--just today, the Election Data Service—Kim Brace as its director and the author--issued a report that's headlined "Nation Sees Drop in Use of Electronic Voting Equipment for the 2008 Election--A First." What we have had is a number of states that invested in ATM-like touchtone screen machines backing off, some just bagging their equipment and returning not to punch cards, thank God--that's illegal--but to optical scan equipment. There have been some individual incidents in states that led to that, but--and we have had many states without abandoning the equipment have added requirements for voter verified paper audit trails, VVPAT, as it's known to the cognoscenti, with others raising questions about whether that's a constructive change or itself potentially problematic. In any case, we have to acknowledge that this is an area of technology and public policy that has generated great controversy and some pressure to move back against the adoption of new technology. So the questions before the house this evening are how valid are these concerns about electronic voting systems, what are the advantages and disadvantages of



these systems, and is it time for the U.S. to learn from the international experience rather than always assuming it goes in the opposite direction? We have much to convey to the world. What does the world have to convey to us in the arena of electronic voting machines? Paul, get us started, if you would.

PAUL DeGREGORIO: Thank you, thank you, Tom, and thank you to the National Archives and this foundation and my friend Allen Weinstein for hosting this event--this important event tonight to have this good discussion with many people on this panel that I've worked with before, and it's an esteemed group. You know, Tom, we've spent \$3 billion of taxpayer money in the last few years on electronic voting, so it is an important subject, and the Kim Brace report that came out today that showed a decline in the use of electronic voting I find troubling, and let me just say that I've been involved in the election business since 1985 when I became director of elections in St. Louis County, Missouri. And one of my first acts there was to get rid of these old poll books that Donetta certainly remembers when she was a county clerk there in Colorado, where everything was done by hand, we got rid of them in St. Louis County and went to electronic registers of voters, which improved the process. We went to a database. So we introduced technology. Roy Saltman in his book, that I certainly recommend, points out that electronic voting is nothing new in America certainly. Back in the Sixties and even Seventies and Eighties is when we really get engaged in using electronic voting systems. Even punch cards that were paper were counted electronically. I mean, the fact of the matter of is on November 4, 92% of the ballots in America will be counted electronically, whether they're optical scan paper ballots or whether they're touchscreen systems.

They will be counted electronically. Only in New York, that in many places in New York State will be using mechanical devices built in the 1930s, will they take the numbers off the back by hand and add them up on some kind of calculator or such. That is using what I call nonelectronic technology to count ballots, and there's very few Americans that will be voting by paper, which is the process used--if any of you followed the election in Canada last Tuesday, they voted by paper, but I would argue that we can trust this technology and that it's no less safe than paper ballots, the optical scan systems. Professors Thad Hall of the University of Utah and Michael Alvarez of Caltech have done a great study and came out with a book "Electronic Elections: the Perils and Promises of Digital Democracy." It's a great book because they have analyzed this whole controversy and point out that the in the state of Georgia that went from paper punch cards and optical scan prior to 2000--when they went to all electronic touchscreen systems in 2002 the voters that were helped the most by electronic voting devices were minority and voters in poor neighborhoods because prior to that, the rate of overvotes and undervotes in those communities was very high relative to the rest of the population.

Electronic voting devices help to eliminate that because they prevent you from overvoting your ballot and they remind you of races that you may have missed. So they've had an effect and a positive effect in many areas of the country, but perhaps the group that I



believe would be helped the most by newer technologies--and I'm an advocate for newer technologies, and that's using the Internet and using online voting, which we're not even doing in this particular election, but the EAC came out with a report last year that showed in 2006, in that election of the 6 million Americans who live abroad, military overseas, work for some fine companies, and people who are dying over in Iraq and Afghanistan for us, 6 million of them, 993,000 were sent ballots, and 330,000 of those ballots end up being counted. So that's 5.5% of that 6 million being able to participate in our elections. Now if that was one state and there was a 5.5% participation in a federal election, there would be an outcry. There's been an outcry.

There's been more attention paid to this issue this year than ever before, but the fact is we're still using the technology and the method that we used in World War I. They're voting by mail. So if you're in Nigeria, Nicaragua, you're primarily sending your ballot back by mail or applying by mail to do that, and you have to rely on the mail system of the United States and Nicaragua or Nigeria to do that. And that's why we don't get ballots back in time, but, you know, there are countries that are making a difference. In Australia last year, members of the military, in their federal election last November, voted for the first time online from Iraq and Afghanistan right beside our men and women serving there. They voted online in a very secure manner. Their turnout went to 75%. Now Australians have compulsory voting. You must vote, or you'll get fined except for the military, but their turnout went from a 20% participation rate to a 75% because of online voting. Estonia, England, Switzerland, Canada, the Netherlands are all introducing online voting in their countries, primarily for remote voters. Countries like the Philippines and Romania intend to do so in 2009. Yet here in the United States, our direction as Tom kind of indicated in his remarks--is back to paper and pencil.

So here is a country that have been leaders of technology going back to the basics of paper and pencil because we think it's safer and it's more accurate, but I would argue that it's not, and we'll get maybe in more detail about that later. One last thing. When I was in Australia last year to observe their election, I had the chairman of the Indian Election Commission come up to me and said, "Mr. DeGregorio, can you explain to me why America is going backwards in technology? We in India got rid of paper and pencil, and now in 2006, 600 million Indians voted on electronic devices in our elections, and we really don't have any problems with it, but I don't understand your country is going backwards, and it's giving you this image of going backwards in technology."

I understand there's problems and there's been problems, and we'll address them probably in more detail tonight, but I think we can use technology to fix these problems and to empower voters, to have secure voting, and last, you know, when 93 million people can vote in 4 hours on their favorite "American Idol" contestant using the telephone, I think the younger generation, who's certainly engaged in this election and here tonight, I think they're going to demand of people like us and election officials "Why can't I use that type of technology to cast my ballot in an election? Why should I have to wait in line for an



hour to vote?" And I think that's coming. It's coming in due time, but I'm an advocate for it and believe electronic voting, with its problem, is something that we should continue to do in the country and actually advance forward. Thank you, Tom.

MANN: Thank you, Paul. We'll turn now to David Beirne.

DAVID BEIRNE: Thank you, Tom, and I'd like to thank the William McGowan Foundation and the National Archives for hosting us this evening. It's extremely timely with the election on November 4 approaching less than 3 weeks away for us to highlight this issue, and just another note is that it's truly humbling to be here with my other panelists, especially in this building, and as I was noticing on the Archives web site, their motto is "Democracy starts here," and I think there was no greater reminder of that than walking through the rotunda and seeing our founding documents.

In light of that, the industry itself finds itself as a very responsible steward as it assists the voters in exercising their most critical right, the right to vote on November 4. As Tom mentioned, I represent the Election Technology Council. It is a trade association representing over 90% of the products that will be used on November 4. Together, our members include Election Systems and Software, Hart InterCivic, Premier Election Solutions, and Sequoia Voting Systems. One thing before I begin my remarks is that it's important to know that all of my members offer both paper and electronic voting solutions, so truly, it's a market-based approach to make sure that we are responding to the demands of the voters and the local governing boards as to what type of voting technology is most critically important to them.

As we look forward to November 4, I just want to make a couple of notes because I'm sure it's foremost on everyone's mind. Where are we with the state of preparation as we approach the election? The current industry providers have been working with their state and local election officials to make sure that during the summertime they were going to be increasing their supplies of voting equipment inventory to anticipate the longer lines that we've all been hearing about and the pundits have been speculating with. Also that equipment support, which is a critical function of our members, is that our role as a provider and our supporting role does not—is not—is a continuous motion, and so even on election day, we are making sure that we are serving as a support function on election morning, as well as on election night when the real activity begins and the votes start the tabulation process.

One thing--so when it comes to November 4, I think that we are--critically, the industry providers are definitely in a strong position. They've boosted their personnel to make sure that they have the lines of communication open with their state and local election officials because no one wants to see election morning come and problems arise at the polling place that are turning voters away, to make sure that we are doing our part to be responsible stewards.



On the issue of software security and overall security with election products, I always like to point back to the academic community in which they fully acknowledge that no software can ever be made 100% foolproof. I take that a step further and acknowledge that no voting system can be made 100% foolproof. If we acknowledge that these are central tenets or fundamental truths when we're conducting an election, then what we're talking about when documenting election integrity is establishing a high confidence level, and I think the question that remains is what is the acceptable level of confidence that we are satisfied with?

Confidence increases with the documentation of the processes and procedures used by local election officials and as echoed by the Government Accountability Office, election integrity or the conduct of elections comes down to the interplay of people, processes, and technology, and that is true whether it's paper-based or electronic voting systems. Local election officials have been very responsive in recent years with the development of procedures to help establish this high confidence level. Some of these procedures include--not to get too much into the weeds with the technical background, but some of these procedures you might hear about either in your studies on electronic voting or hopefully not in the newspapers too much. Preimposed logic and accuracy testing. This is a test that's conducted just prior to the election, as well as after the election, to verify that the tabulation logic that is used within the electronic voting systems or used to tabulate paper ballots, that it is actually tabulating the votes as it should, and so you cast test votes and make sure that the system is operating as it should to record proper voter intent. Preimposed hash code testing. This essentially, without getting too technical, this tests whether the software used locally is the same software that's been certified and deposited with the National Software Reference Library. Parallel testing involves the actual random removal of equipment on election day to conduct further logic and accuracy testing basically in response to this notion that how do I know someone has not tampered with the equipment prior to its delivery on election day? And finally, post-election auditing and reconciliation of precinct records. This is a critically important step and is done at the election office to verify that all of the memory cards that have been sent from the precinct and the local voting booths have been properly accounted for and that all of the votes have been recorded on election night before they release them at 100% levels to the local media.

During a lot of my remarks, I hear a lot of questions about, well--and you hear this description of software as being proprietary or secret. Secret I take as a political term that's used as a pejorative to denote some sort of negative connotation. The notion that industry providers are intent on not disclosing software, that somehow it's secret is not true. It is protected by intellectual property, and we expect that to be the case as we see in other software industries, but we also do embrace or responsible role in the conduct of elections, and we support the deposit of the software in archives in case of any type of instance in which a post-election investigation becomes necessary. In addition to being on deposit with the National Software Reference Library, it's also on deposit with various



state and local election officials, as required under state law, and as I mentioned before, we do support this continuing deposit of the software to make sure--but it must incorporate strict controls which respect intellectual property. And although voting system providers have a critical role to play in the conduct of elections, our role as a steward within the process or as a supporting role does not abdicate the responsibility of the local election official to build their procedures to encapsulate the operation of the voting system. Should a problem arise on election day, software is an excellent way to conduct a further forensic investigation because rather than depending on individuals to somehow replicate how they determine voter intent, you can conduct repeated tests on software, and you will continue to have the same results and find out if there was an issue with the software's integrity.

The way I consider software overall is that it serves as a third party, and a third party has been a fundamental part of our election process going all the way back to the founding of our republic. The third parties themselves, they've been present in hand counting once you have chosen representatives that are assisting with the vote tabulation, lever machines in which there's actually no independent auditable record. So you're depending on the machine's logic and configuration. Punch cards, which are also dependent on software tabulation unless you do a post-election recount, and then once again, you're dependent on a third party. Optical scan software in which you bubble in an oval. Again, you're dependent on software, and that's especially true with electronic voting systems. So software as a third party is truly a part of our history.

Paper is certainly much more of a local value is the way I consider it. It comes down to urban versus rural. One voting solution does not necessarily fit the needs of every single jurisdiction in our country, and to think that paper is somehow a panacea to concerns about voting integrity, I think, is a gross oversimplification of the complexities involved with election administration. In effect, we have a disconnect between what we are expecting with innovative voting techniques such as Internet voting versus these concerns about voting system integrity and having a paper record of each vote cast. Early voting, vote centers, hundreds of ballot styles in urban jurisdictions, multiple languages, and accessibility for voters with disabilities and instant runoff voting are just a few of the innovative voting techniques that are being asked for the voting system manufacturers to comply with, which lend themselves to a completely software-driven platform. Let's end with that.

MANN: Thank you, David. Uh, Donetta.

DONETTA DAVIDSON: Thank you very much, and I, too, would like to thank the National Archives for this evening and the Foundation. It's a great honor to be in here, and I hope my voice holds up. They put the mike a little higher, so hopefully it does its job. As you saw in your program, the history that I have had in the past 30 years has been in elections, whether in local, state, and now federal, and I will tell you the changes that I've



seen over the--since 2000 election in Florida is far more than what we've ever seen in the nation ever in our world because all the changes--if you can think about the federal law changing, which definitely formed the EAC, which is the Election Assistance Commission, and then from that point on, states were changing laws and then on down to localities even having to rewrite all their manuals, make sure that they have new systems coming in, programming, testing, as you heard from David.

There's been a lot of changes that has taken place. One of the things the EAC has done is that we've taken this as a two-part scenario. First, you've got the equipment, and just briefly, I want to tell you about our EAC web site. It's www.eac.gov, and you can go in there and see all of the material that we have provided to localities to assist in when David talks about security, how to handle their equipment, all the way through before the election receiving it and going through the process, setting up their ballot, and getting the equipment back in and making sure that their accountability is held all the way through the election process.

One of the things that the Help America Vote Act provided was that we in our jobs have to do two main things that affect us, what we're talking about tonight, and that is to write the Voluntary Voting System Guidelines, which you'll hear me say VVSG, and also certify and accreditate laboratories to test the equipment under. In 2005, we actually had the first set of VVSG, went through the process, had open debate, and we set that in the latter months of the year. We are now testing equipment to those standards, and when I really talk about testing standards, when we write that, we're writing guidelines that represent a testable standard by which the voting system can be tested and certified. So it gets very technical, and we utilize by law the National Institute of Standards and Technology, which is NIST, to assist in that direction in helping us accomplish this. It also allows any time we do this for open comments from the public.

Right now, we are looking at the changes in 2005 to improve it so that we have better testable standards that the test labs can utilize to make sure that we are testing equipment the same throughout the nation and also that it allows more ability to make sure that the system is meeting all the standards it's supposed to. Then the extra thing that we're doing is looking into the future, the next iteration of voting systems. This has nothing to do with the systems that you're going to be voting on the next few years in your polling locations. This is the future. This is looking to what technology can bring us in the future. So we're writing standards and guidelines on that area, and that will be done and moving forward in 2009.

There again, we have open comments as we go through the process, and we encourage everybody to stay tuned and watch and take part in that process. The last thing that we really feel like is a real plus that we are accomplishing right now is we have just awarded a threat assessment.



Now you've heard everybody talk about different types of voting, and everything from paper--this is just hand paper and somebody counting it, that third party counting that paper--all the way through electronic voting and Internet voting. So it will assess every type of election equipment that is out there or type of elections that's being used in our nation because, folks, we still have paper being used in some of our communities that is hand-counted. So we need to remember that we need to be able to assess whatever the security that might have a problem, how can we mitigate that, how can we move forward and make sure that, if there is a mitigation that has to take place, how can we handle it? What is the cost of that security? Can we afford it?

Obviously, we know the more security that's in any system, you know, the--all of the security that is ever in place and make sure that everything is handled properly when we talk about a jet taking off all the way through when you get onto an airplane or when you're in a hospital, and all the security that--and the equipment that's being used is making sure that it meets the standards, and that's what we're about is making sure that we're meeting the standards and the guidelines there. This will help the election officials. It will help the advocacy groups. It will help EAC, and obviously, it will help Congress as they move forward to make sure that the threats against voting systems we can make informed decisions on the cost benefits and the natures of those threats and the mitigations that can be used against those threats.

That means that election officials will be able to look at their voting systems and evaluate it to make sure that they're meeting every bit of the standards that they need to be meeting and to make sure that they can utilize the cost and make sure that they can afford whatever they're trying to accomplish. Cost is deep, and it does—and the cost comes from your local and your states. The 3 million that has just been handed down by Congress, and then they've got an--billion I should say, and then the extra billion that has been given this last year, it definitely helps, but there's a lot that goes into the costs of election. We have over a 1,000,300 volunteer poll workers in this upcoming election, so you can see that the human touch of this election is obviously one of the aspects to any type of mitigations that needs to be made. Training is a big aspect, and we have also done a lot of material on the training of poll workers, training of our election officials, and I do appreciate the interest and definitely the interest of the public has made everybody be more aware that they want to know how votes are cast and how votes are counted, and we want to make sure that it is an open process to everybody, that you have the right to know how the process works. Thank you.

MANN: Thank you, Donetta. Patrick.

PATRICK MERLOE: Tom, thank you. I must start by saying it's an honor to be part of the McGowan Forum Series and to be together with you here tonight in this institution with the incredible role that it plays in guarding and promoting the democratic values upon which our country has been founded, and I also have to recognize the Archivist of the United



States Allen Weinstein, not just for your contribution in this role but for the contributions you've made over the years in promoting democratic processes and the integrity of elections around the world, something for which we at NDI and I personally have been inspired. Tom, as you know, about a year ago, I co-authored a guide on how to monitor the integrity of electronic technologies in electoral processes. It was an educational experience for me. I brought to it a background now of over 30 years of promoting public policy and citizen empowerment that started in the voting rights and civil rights movements of our own country and has moved overseas in international human rights. I've been involved in over 150 missions overseas to 50-plus countries in monitoring elections and other things. In the course of doing the work to put together that guide, I came to one critical re-realization, and that is, before we go down into the weeds of these technical issues, we have to remind ourselves of the basics, and frankly, we have to start tonight with this fundamental assumption—elections belong to the people.

It's just that simple. They're there and they're organized for one purpose and one purpose only, to ascertain accurately and to report honestly the will of the people as to who shall have the legitimacy and the authority to occupy elected office as our representatives and to use the powers of government in the public interest. Elections do not belong to election administrators. They're not to be left simply to the business of those of us who take on the incredible, incredible responsibility and the gigantic logistical undertaking of organizing an election across the country. It's paralleled really to nothing else. Disaster relief for a hurricane doesn't measure up to it. It's really more along the lines of military operations in terms of what is undertaken, and the respect that I have for the election administrators on this panel and around the world is truly profound. It doesn't belong to the people who stand for office, the parties and the candidates either, although if they didn't take the responsibility to step forward and to occupy the powers of government and the offices in times like these and in good days, as well, we wouldn't have representative democracy, but elections belong to the people, and it was a radical concept at the time when this country was founded to say sovereignty resides in the people and that we get to elect our representatives, but by 1948, it wasn't so radical anymore. In the Universal Declaration of Human Rights at Article 21, it says that the authority of the government derives from the will of the people expressed in genuine elections universal suffrage, the secret ballot, and so on. That was passed by the United Nations unanimously. There were only 7 abstentions in the process, and my friends who are here from the Organization for Security and Cooperation in Europe in the Copenhagen Document recognized this, and if you look at the international human rights instruments from the Organization of American States or the African Union and so on, this is enshrined in all of these documents now. So from this I want to go to the next step.

The next step is we as the people are not so much concerned with the particular technology that's used in an election; whether it's paper or whether it's a DRE voting machine; or whether it's an electronic pen that reads digital imprints on the ballot paper and records it at the same time the ink is left behind so we have a paper trail and a nice,



little cute device that not too many of us have used yet; or, as in the Philippines and is being experimented with right now in one county in Florida, where overseas voters have registered electronically have given a voice imprint electronically, which is unique biometrics to that person. And that person will be able to telephone on election day and register their vote. The biometrics should check to be sure that they're not impersonating someone else. We're trusting that it's being recorded accurately, and that's the point that I really want to get to next: trust.

The problem that was revealed in 2000 in Florida was not that there were hanging chads or dimples. The problem that was revealed in elections since, with DREs, is not the lack of a paper trail, it's the lack of trust. It's the lack of public confidence in the process. And the only way to establish that confidence is transparency. The people have a right to information, and no information is more vital than the information about whether an election is genuine or fraudulent; whether it is accurate or, due to some sort of administrative irregularities, is inaccurate. And to be able to see into that process is the key. So it's not that we question the use of advanced technologies or more technologies, it's whether we as the citizens and those who have a right to stand for elected office are able to be involved early enough in the process, when the policies are being made, to use a certain technology or not; to be involved early enough and to see into the process whether wise decision-making is being made in the cost-benefit and risk-benefit analysis; to be involved in the design; to be able to understand whether the security implementations and innovations are accurate; whether you can test the source codes or not; whether you know that what's being recorded is an accurate reflection of what a voter wanted to record and you can verify afterwards that it's accurate.

So what I put forward tonight for conversation is not what I learned in looking into digital pens or voice imprints or how you use not just electronic voting, but we could talk about the problems in electronic poll books and the voter registration process, because if that electronic technology is not accurate, people will be disenfranchised, or the door will be open to illegal voting, and the integrity of elections can quickly be destroyed.

So I hope that in the course of the conversation we'll be able to discuss these matters, too. Thanks, Tom.

MANN: Thank you, Pat. Very, very constructive. OK, Roy, bring it on home.

[Laughter]

ROY SALTMAN: Well, I'd like to first thank the William McGowan Foundation and the National Archives for establishing this program and inviting me to participate with my distinguished colleagues on this panel. I'm to a large extent concerned with the issue of public confidence. Now, Paul DeGregorio has pointed out that we sort of stepped back from advanced technology to go back to more pencil and paper. And I understand that as



an issue of public confidence. What has happened over the past several years is that a great deal of doubt has been raised by people of good intention but of—without considering the entire system process, process of the system.

For example, we have had books written with a title such as "Fooled Again: How the Right Stole the 2004 Election, Steal this Vote" by Andrew Gumbel, "Stealing Elections: How Voter Fraud Threatens Our Democracy" by John Fund. In addition to books with these titles, there have been considerable presentations, strongly presented by the media, by computer scientists such as Avi Rubin of Johns Hopkins, Ed Felten of Princeton, and a number of others that have pointed out that there are vulnerabilities and holes through which hackers could enter into...manipulate the software. Not that any of these books or the computer scientists can point out specific areas in which actual fraud has occurred. There are no revelations of new frauds that were unknown in any of these books or in any of these presentations by the computer scientists. But it has resulted in a reduction of public confidence in our reported results of elections. There are two areas in elections that we need to--two major areas.

First is voter registration, and the other is ballot casting and counting. In voter registration, we've seen that very recently brought up in the presidential debates as a possible...example of potential fraud. We've had in this country enormous history of voter registration fraud, going back to the era after the Civil War, when there was very little voter registration requirements. Indiana had none, which is why that state was a hotbed of floaters and illegal voting for many, many years. But in recent years, while there's a strong memory of this, there has been no demonstrated organized voter fraud in the voter registration area.

Nevertheless, I think we need to do something. We have this haphazard system of private parties registering voters and bringing the applications to the election administrators for processing. I think there have been charges that, of course, this is filled with attempts to register illegal citizens, illegal aliens, or persons who don't exist. On the other hand, attempted purges of people who have voted, who have not voted, who are--supposedly have left the state or changed their address or died--the attempt to eliminate these other incorrect names on voter registration lists have been charged to be at eliminating certain classes of citizens from the voter rolls.

These charges and countercharges occur because our process of voter registration is so haphazard. I think that we need a better system of voter registration involving better data processing, better interstate coordination, and involvement of the national government in the whole process. Other countries have done this. Mexico is very proud of its system of voter registration that involves a national system. We don't have such a national system, and I think that we need to look at the possibility of it.



I suggest the Election Assistance Commission establish a project of bringing together people who are really interested in this subject who will propose a new national method of voter registration to eliminate the charges and countercharges that we see in front of us. On the area of balloting and vote casting and counting, I see an important issue is independent verification. The issue of the dominance of software presented to us constantly and presented by the media in large headlines can be eliminated if we have for every method of voting a possibility of independent verification.

For example, the use of optical scan ballots is one such method, where the ballot is available and prepared by the voter and then inserted in a computer-based system, which counts it, and then the ballots themselves are available for partial recount. We saw such a system happen in this District of Columbia just a week ago, or two weeks ago, when a supposed error in a ballot system was reduced to nothing when the ballots were recounted by hand. Optical scan ballots were recounted, and the problem went away. Independent verification is a good system, and I don't see how it can be used with remote Internet voting, and that's an issue that we need to look into.

I have some other issues that I wanted to bring up, and one of them is the continued use of punch card voting. Despite the fact that Tom said that it's illegal, it's not. It's being used in Idaho. It's being used because Idaho didn't ask for any money under the Help America Vote Act in order to change their system. So they didn't have to change their system, and they're still using punch card, pre-scored cards, voting in Idaho. And I think it needs to be stopped because that's a system that has serious problems, as we know. And like the need for helmet laws, motorcycle helmet laws, sometimes we have to keep people from hurting themselves despite their own desires.

MANN: Roy, you just don't understand Idaho. I mean...

SALTMAN: You're right. You're right. I don't.

MANN: Well, listen. Thank all of you. It seems to me in the audience, you can see what has happened, I think, in this country. First of all, we've been in a period of intense partisan polarization. In a 50-50 nation, deep suspicion by one side of the other, a belief that the election is being stolen, utter lack of mistrust, insufficient sort of transparency, as Pat was saying, that would give some reassurance--all of which has sort led to suspicions building. And it's taken the most concrete form with more advanced voting technology because there you can conjure up undermining entire elections. And the hackers have had their day, and certainly concerns about...being able to conduct audits after the fact fueled the movement to require paper audit trails, which has complications in and of themselves. It's not that there aren't any problems, real problems that states and counties have encountered with voting--electronic voting equipment. I mean, we have had situations of dropped votes because of software flaws. We've had significant undervotes. I



mean, Florida...was the classic case, although most research indicates that problem was a ballot-design problem and not a software problem or technology.

But the question becomes—and that's what I'd like to get your reaction to, and then we're going to move to the audience--is, is it possible to move forward, to see that we encourage innovation in the use of new technologies, that we provide sufficient economic incentives--because I don't think they exist now, given the nature of the industry and the amount of business there is and the fact that localities usually have paid for this equipment and they want to keep it, you know, in which case, the industry is servicing rather than investing in developing entirely new equipment that would help deal with some of the problems.

But the other is on the trust side. Quite apart from supply side, developing new equipment that meets some of the concerns and objections having to do with security and accuracy is the trust side.

What is it that we can do that will prevent the movement we see occurring in states to back off, to sort of simplify--ironically, as you all have recounted--to move back to systems where corruption was rampant via stuffed ballot boxes and many other things. Give us a kernel of ideas for how we can accomplish that. Paul?

DeGREGORIO: Well, Tom, I think we've heard a thread through many of the speakers tonight about some solutions. I mean, certainly Pat hit it on the head about transparency. We have to be more transparent in this country. I mean, the fact of the matter is we have many international observers who are coming to observe our elections who will have some access to our polling places, but there are many states that don't allow domestic observers, much less international observers, into their offices or into the process of watching the vote count or how they certify, how they do their testing of equipment. That's absurd. I mean, there should be nothing to hide, and I think that first will help provide some comfort level to voters and voting group to be able to observe this. I think--I think source codes should be made more public. I know that many of the major vendors are concerned about that, but I think it has to be put out there for people to be able to understand that it works and works the way that it says.

You know, I think that the EAC is doing many areas of certification of election system, and certainly the standards that they're setting that I had a role in in the very beginning is all going to be important. But I think that this election itself is going to have more safeguards than any election in our history. There is going to be more auditing of the process-- you know, 5% recounts, 2% counts, hand counts after the election.

It's going to take a lot of time and a lot of effort. But I think those will help provide some kind of level of trust in the system. It's also going to expose the flaws. I mean, it is going to expose the flaws. You know, Florida went back to paper ballots. They got rid of them.



What happened in Palm Beach County last month? They lost 2,300 ballots in the recount. You know, what happened to them? They can't find 2,300 paper ballots. That's crazy. That should not be occurring, but those are paper ballots. But, I mean, I think we--Election officials need to be supported. \$3 million is a lot of money to help our democracy, but let's face it, we just spent--we're spending \$700 billion to bail out Wall Street. Let's spend a few more millions to bail out our democracy and to build—you know, help election officials have the best system that we can possibly have in the world.

MANN: Do we need a national system of voter registration, as Roy suggested? Do we need national I.D. cards, as many European and other countries have, to pull this off? Pat?

MERLOE: Well, I've seen this in place in many countries. And one of the things that you have to understand in this arena of elections is that democracies develop according to national historical circumstances, and political culture is a reflection of other elements of culture. In this country, we have very strong resistance to national identity systems. We're not Scandinavians. In Scandinavia, there's some resistance to these things as well. And so, I don't think that's necessarily the answer. I'm not hostile to those sorts of things, but I don't think that's necessarily the answer. And I think you have to start from the original understanding that elections will be contentious, that universal suffrage allows political organizations to seek office.

And there's one example that I love to use from years and years ago of a newspaper editor who was running for mayor of a certain city. And he had two headlines, front pages, prepared the night before the election, the first of which said, "Merloe Wins--Great Mandate." And the second said, "Merloe Loses--Massive Fraud." Now, that's the mentality of political competitors. We heard it on television during the debates the other night, the overexuberant way the ACORN problem was referred to.

The Supreme Court of the United States today decided a case that had to do with voter registration issues in Florida and said basically trust the election officials--Ohio, I'm sorry--in Ohio to look at the election commission. These things will come up. Do we have, though, in place a system that allows the political competitors to create checks and balances, a legal system that's independent and trustworthy that will somehow arbitrate this process, and do we have trust in that process? Yes, ballot boxes are stuffed, but if you've got party agents there to check one another, that's diminished. Yes, voter registration can be manipulated, but if you have party people there doing their job, those things can be checked.

If you have an electronic technology that had been put in place in this country from the beginning that had had a paper trail which existed in some technologies in this country and has been used in Europe widely before we started to employ those particular technologies, we wouldn't be having exactly the conversation that we're having tonight.



And yet, in Europe, where these things have been used--I'll give two quick examples and stop. In Belgium, a significant percentage of the population for two decades now has been using touch-screen or some form of electronic voting. There is almost universal trust in the process. Why?

There is a special college of experts that was created. It's appointed by the parliament, and it reports 15 days after the election to the parliament. The college of experts has complete access to all of the source codes, all of the technologies, can test them before, on election day, after election day, and so on. Secondly, every political party that has at least two members in parliament is allowed to appoint an I.T. expert that is given all of the source codes and allowed to examine them. There's a confidentiality requirement so that they can't reveal proprietary interests. There's trust in the process because there are checks and balances. Next door, almost, in the Netherlands, there has been a process of electronic voting used for some time.

But two things happened last year. First, there was a blue ribbon commission that came to the conclusion that they had to move to a voter-verified paper trail, because they didn't have one. And second, a citizen group got a hold of one of the machines and hacked it and then went to court and proved that it's not a reliable technology. And the court ruled, those machines have to be decertified. The government ruled, "We're going back to paper until we can go through this process and have confidence again." So we're not alone in these things. The thing is, do we have the checks and balances, the transparency, the verifications that allow the public to mitigate the parties' contentiousness and call upon the parties to act responsibly rather than irresponsibly?

MANN: Thank you. David?

BEIRNE: I just want to add--there's a number of issues that have come up just in the last couple of comments. And actually, Pat's comment about--especially when it comes to--How did you describe it, the school of experts, basically? College of experts. That's absolutely a model that could be employed because, as you described it, there are nondisclosure agreements or some other tool. What we've found within our industry is that the academic community has refuted or rebuked any attempt to sign a nondisclosure agreement because their mentality is research for the purpose of research. That's not to say it's a negative, it's just that's their mentality.

So the fundamental principles of intellectual property are not something that they truly think are all that important. There's also a number of issues, and I think Pat also touched on this, which is the constant interaction between politics and election administration. And the hyperbole--and I think you referenced, even, the notion of votes being dropped, when in fact, and I don't defend any of my individual companies, but I do know that when it comes to that circumstance in Ohio, it's not a fact that the votes were lost, because that's what people take away from the nomenclature "votes being dropped." They failed to load.



They were still present on the memory cards, and they were still able to be audited. But when you're dealing with a hypersensitive political environment, that fact is lost.

In addition, you're dealing with an academic community--I point to one recent hack conducted on one of my member products, and they portrayed it as hacking in 5 seconds. What they failed to show you was the fact that they had access to the software source code well in advance to develop the virus tool in question. So in a real-world environment--and this goes, I think, back to some of the comments by Mr. Saltman--in a real-world environment, you would not have that level of access. And so that's why I think constantly running into this issue of a hypersensitive political environment, rightly or wrongly, and how it injects itself into the conduct of voting and the machinery itself. And going back to the 2000 election, it's important to note that punch cards themselves were well documented back in the sixties of having limitations with chads. What we're dealing now with electronic voting systems is that it is simply the perception. So if we're allowing perception to consistently rule the day, the opportunity to open ourselves up to innovation, I would say, is going to be completely lost.

MERLOE: But politics is about perception.

MANN: Indeed. Indeed, it is. Yes.

DAVIDSON: It is about perception. And I think that in the future, there is a lot of room for technology. It doesn't have to be verification by paper. There is other means to verify a person's vote that people are beginning to come forth and really move forward. I mean, it's not actually recording how an individual votes, but it is actually watching you as you cast your ballot, whether it's a camera or whether it's recording it on another device. There is other things that in technology you hate to shut the door on, because in the future, in this next generation of our voting systems, it could be much better. What we have today is--the EAC really has been put in place to be that "college" group that is overseeing, testing, and certifying.

This is a new process. We are certifying equipment to the 2005 standards, and it is a lengthy process. And I think if you follow our process, you'll learn that we're trying to put in as many, you know, stopgaps to make sure that everything tested, that it can be accountable, it is reliable, and it is counting the votes the way that an individual is voting. It is--Excess testing is definitely one of the places you pick up any problem that might occur in any type of software.

So we are moving forward. It's not like the government hasn't done something to help try to put something in place to do something like that. But you're right. The biggest thing that there is out there is transparency. Our election officials are much better. They have met the needs of being open and transparent through the testing and through the whole



process. If you'll watch the newspapers, you'll see when they're testing equipment and when the public is invited in.

So there is open doors to watch the counting, watch recounting, and by state law, every state has its own law, so I advise you to go to that and really check it out. But the one thing we want to make sure this election is people are aware of what their rights are. There's provisional. And if your name's not on a list, if your name was accidentally left off, or somebody didn't turn in your registration sheet, or something, you can still ask for a provisional ballot, and it's checked after the election. You're not going to have results, folks, immediately. You're going to have unofficial results, but there's going to be results that come in on provisional ballots for quite some time after election day. So I don't want people going away thinking you're going to know the winner and the loser if it's a close election, no matter whether it's President, a U.S. Congressman, even anybody that is on the ballot. It's not going to be official results until abstracts are done and checks and balances are put into place.

MANN: But, Donetta, as you know, the tremendous variability across the states in how provisional ballots are counted or not counted, and dramatic differences in the percentage that are, and so it's all caught up. Nothing is set up that works fully, is foolproof, but...you're right. You're working on it. Everyone's working on it. Roy, a brief comment, and then we want to go the audience.

So if you would, if you have a question, if you'd mosey your way to a mic, that would be great. Roy.

SALTMAN: My impulse is to, in regards to technology...is to point out that there is a strong connection between institutional arrangements and technology. You can't--In this particular area, it's very hard to separate the two. For example, one of my strong feelings now concerns the chief elections officer of each state. Not to say that there aren't many--for example, Donetta, who was a secretary of state--who carry out their responsibilities in a nonpartisan manner, but we have seen in 2000 and 2004 secretaries of state who were also co-chairs of their presidential candidate's campaign committee. Now, that's shocking and unacceptable. In my opinion, we ought to have in every state a nonpartisan or multipartisan body that supervises elections. In this, I believe, the United States is way behind other democratic countries. And with that imposition of a nonpartisan or multipartisan system, I believe that we could adopt this college of election administration or involvement in a much easier way that would be acceptable to a wide variety of people.

MANN: Thank you. All right. Question here. Please.

WOMAN: My name is Alex White, and I'm a McGowan Scholar from DePaul University, and my question is, would you expect more consistent voting results from a universal



voting system throughout all the states or systems that actually represent the markets of people, or demographics of people who are voting?

MANN: There's a good question. Who'd like to try and take a crack at that?

DeGREGORIO: You know, we don't have a one size fits all in America, because, in California, voters there vote on all kinds of propositions. So you have long ballots. If you're in the city of Chicago, coming up in this election, you have 60 judges for retention, so you have a long ballot there. But if you're in New York, where they don't have a constitution that allows for--initiative petition to allow for propositions, they have a smaller ballot. So actually, their system works differently. So it would be very difficult to implement a one size fits all for the country because of those differences. Would it make a difference if we did? It might. You know, it just might if we had one system throughout America. But it's just not likely to happen in the near future. But I think we are seeing more states go to a statewide system of voting, states like Georgia, states like Maryland here, states like Oklahoma, Louisiana. They have the same system in the whole state. And so I think we're seeing a trend in that direction, and you see more consistency that way within the state.

MANN: A question here.

MAN: Thank you all for your comments. I'm Ben Shneiderman, Professor of Computer Science, University of Maryland. I appreciated Roy Saltman's critical comment, which was the traditional scientific method of breaking the problem apart, and some colleagues had critiqued the security and the reliability aspects. But to me, voting appears to be an example of the new kind of problems that we're facing, such as health care delivery or terrorist fighting, which are sociotechnical problems. And it's well known that the route to sociotechnical problem solutions is paved with technology-centered failures. And the technology-centered failures here, I believe, come from the narrow vision which focuses too much on the technology. I was heartened by Patrick Merloe, and I'd ask him to expand on these examples he gave, which have social structures combined with the technology of poll observers, of external independent oversight committees who are given authority, and their persistence over time enables them to develop expertise in the technology and the social structures and become voices of respect and authority. How can we get to those, and are there existing models in the U.S.?

MERLOE: Thank you, Ben. That's a critical question. Let me start with two examples, maybe. One that I would--is a real example comes from Kazakhstan. And it's an example of a dream world, almost a Jetson-like world of electronic technology in voting processes. The voter arrives at a polling station. They present a card that has a chip in the card to the officials. The machine identifies the voter and checks the voter against an electronic voter roll and registers this person has voted, cancels it across the entire nation so that the person can't vote again. The person is handed a scanner, similar to what you find if you go to one of the retail stores, and that scanner then is taken--presumably not loaded, it's



neutral—into the voting booth. And in the voting booth on the wall are the candidates' names, and next to the candidates' names are bar codes. And the voter holds it up and reads the code for the person that they'd like to choose registered on the scanner, which goes forward. That voter, of course, may or may not be concerned with whether the electronic voting system based on the card that identifies them is somehow linked to the scanner that registers the vote that they just chose. Let's take as a matter of faith that this ballot is secret.

But then the device gives to the voter an individual unique number. And that voter the next day can go online and can check to see whether her or his vote was registered in the way that she or he chose. Of course, the voter's boss can demand the number and go online and be sure that she or he voted in the way that was intended in the first place. The problem with the Kazakh system is that there's a lack of faith and trust in the process. We all laugh at it. In fact, some Kazakhs I know cry about it. There are no political party agents allowed to see into this technology. There's no domestic certification by independent nonpartisan boards. International observers, some of whom are in this room who were present in Kazakhstan, had no real ability to see into this sort of a system. So let's reverse-engineer it, as you're suggesting, Ben. And I think what we need in these systems and what's been proven is where, starting from the design of the system, inclusiveness as a principle in elections is critical.

Include the political competitors. Include those citizens like yourself or civic groups that have an interest in electoral technology. Allow them to see the process, give input. Create systems in which designs can be tested. When we move to the testing, as you've mentioned, whether it's load testing, whether it's simulations, whatever the testing are, allow independent experts to look at this that report to citizens. And confidence is built in that process. Allow during polling day political party agents, candidate agents, and independent nonpartisan--the League of Women Voters or other such organizations--to be present and to check these processes and to be able to report on them. I could go through this at some length, but I think you hit on the crux of it. If you can build in the systems that are one, inclusive; two, transparent; and three, provide effective accountability; the result will be public confidence, and there's nothing more important about elections than public confidence. That's what elections are designed for.

MAN: What I was trying to get to is an important change in our language to suggest that we only trust people. The technology are only mechanisms. And as long as we use the language of trust on machines, we've got it wrong. Only when we shift to talking about people and include not just a description about the voters, but the party agents, the observers, and so on—we need to build the interfaces and make the usability for those systems available and successful as well.

MERLOE: Exactly.



MAN: Thank you.

MANN: Question here, please.

MAN: Hi. Thank you so much for having this forum. It's been very interesting. I grew up in the state of New York, and I have very fond memories of lever machine voting, and I've been a poll worker in New York, and it's very easy to teach voters how to use that machine. They seem to have a high level of confidence. New York has really struggled in implementing HAVA, and I think what a lot of us who are from New York kind of question, since our system did not break down during 2000, yet we had to replace it under HAVA, in retrospect, was that fair to do? Have lever machines reached the end of their natural life? And I'm curious just about with all the struggles New York is having and in terms of with uncertainty about other kinds of voting machines and New York still having their lever machines, are we moving in the right direction? Because I love those machines, and I'm going to miss them.

DeGREGORIO: Well, let me help him debase his love of the machines. Just to tell you, when I get that question--I got that question from New York when I was pushing them as chairman of the election commission, even editorial board of The New York Times, I said, look. You really love these machines, let me show you what to do how to change the votes on them. They're 900 pounds. Just lift the back up about a foot and drop it down, and watch the numbers change on the back. It's that simple. It's just that simple to change--These are mechanical machines built in the thirties. So there's no paper trail on them. So they've worked well. I've had plenty of people in New York argue with me, "Why can't we keep them?" But I said, "You know, if you really knew how they worked and how those strings break in the middle of the day in about 6% of them, you'd be concerned about the votes that come out of those machines."

DAVIDSON: I think that one of the things that we've all forgotten here today and the reason why HAVA also was formed is because of the usability to people with any type of disability. You take that machine that you're using in New York. They really--If they're blind, there's no way they can do that without having assistance. If they have any type of mobility problems, they can't use that machine. HAVA is about allowing these people to enter into a polling place and to cast their vote, and they have been doing that this last few years and doing it by themselves and coming out with tears in their eyes because they didn't have to have somebody assist them. But they weren't sure if they were actually voting the way they wanted them to. So I think if you talked to some of the people like that, they would tell you, "We want to move forward with the Help America Vote Act and follow the law." And, yes, New York has been having problems, but we've got to remember some of the reasons why the Help America Vote was put into place.

MANN: We are running out of time. One last question and a brief response, please.



MAN: I want to ask about Ohio. In 2007, there was an analysis, of Evaluation and Validation of Election-Related Equipment Standards and Testing--EVEREST. I wanted to know what the EAC--how they evaluated that analysis. But I'd also like to get Mr. Beirne's reaction. If this is true, the results of this, that there were critical security failures in every system tested in Ohio, doesn't that call into question nationwide all the systems that will be used in, well, 30 states in November?

MANN: OK. Donetta, you first.

DAVIDSON: I keep thinking I would speak into the mic, and I've got one on. But, anyway, the EAC, anytime there is anything that happens like that and those reports are given to us, we send that on to our laboratories so that they can look into those types of issues. So it is utilized in what we do. We make sure that we follow up on anything like that. So has there been--You know, the testing has been improved to make sure that we're hoping that we catch any type of thing. Can I say it's 100% accurate? Right now, we are working through all of that, and I think as you watch our website, you'll see how hard we're struggling with the testing of equipment. And you can see that now, even, with the website, and it's working. It's going to be good. We are just not there yet. And we want it to be as--I don't know, what's the word, Matt?

MATTHEW MASTERSON: Robust.

DAVIDSON: Robust as it possibly can be. I mean, I made Matt come thinking I wouldn't have a voice.

MASTERSON: I got one word in.

DAVIDSON: But he got one word. And I appreciate him being here. But it will be far more robust than what it's ever been in the past. So I want to ensure people that we are moving forward to those goals.

MANN: David?

BEIRNE: In regards to the Ohio EVEREST report, there's been a number of concerns that we've raised about the methodology that was employed. That's part of it. The other part is a lot of the results could not be replicated. And a lot of times, the threshold has reached a point now in which they're simply describing a potential penetration without actually having to execute the penetration. So that's calling into question--It's really showing a shift, a potential shift, in the marketplace. Now, all the industry providers recognize that this is a continuous product improvement. I mean, we've recognized this with the technology that's moved us in the last 40 years. So the evolution of technology is not going to stop. However, the security model that has been applied in both California and Ohio is not a



model that's been applied to any such voting system since paper ballots as well as electronic voting systems when they were first developed and certified. And so that's what we're dealing with now is that a number of new secretary of states have come into office. Rightly or wrongly, this is an issue that they have a concern with. And if that's truly the security model that they're working towards, what it reflects is a potential just changing in the marketplace dynamics itself.

The question is, how do we get from here to there? And that's what we're dealing with as an industry, is if the absolute threshold--if we're dealing with an environment in which every single voting system cannot have any such weakness--Let me give you an example. In the Ohio report, it talks about denial of service attacks. And in their scope of denial of service attacks, it includes disconnecting the power or disconnecting the cables. Well, denial of service attacks can occur with any type of voting system, whether it's paper-based or electronic. And I would say in that threat model, no voting system can be certified or meet the requirements.

And just a couple notes. One of the biggest ironies, I think, looking towards this election--And again, we offer both electronic and paper-based solutions. But as I was walking into the Archives building, I noticed--The past is prologue. And looking back towards the 2000 election, we had a paper record in the form of a punch card. And I would say that it did absolutely nothing for voter confidence because people were forced to discern voter intent. One of the ironies, however, is that, and one of the recommendations with EVEREST was to go back towards an optical scan system, centrally based. And in Florida, they've gone back to paper-based ballots.

So my question, I think, for everyone is, just to think about, is that if there's a close election in Florida or in Ohio and we're once again dealing with a stack of paper ballots and people are having to discern voter intent through their chosen representatives, is that going to really boost voter confidence? I think that--Truly have we learned anything from the 2000 election? Because the electronic voting systems not only moved us forward with eliminating questions of voter intent, but they also provided valuable solutions for voter accessibility. And so when we're looking towards innovative products, are we moving backwards or forwards? And I just wanted to...

MANN: We're going to end on a note of optimism. If you look at the history of American elections, you will realize that most presidential elections are not close, that the 2000 and 2004 elections are very unusual, and because the margin was so small, the possibility of something going wrong in one state--It was Florida in 2000, Ohio in 2004-- could make a huge difference. The odds are, given the historical record and given what we know about this election, is that the margin of victory will be such that we'll get a little breathing space to continue to make some of the improvements in our system of election administration, buy ourselves a little time to get our act together, improve the situation, hopefully begin to



rebuild some public trust. At least, that's my optimistic close, and now I'd like to turn it back to the Archivist. Please.

WEINSTEIN: I'm afraid that you folks have brought out the warhorse in me. Thank you, Patrick, and thank you, Paul, for recognizing the fact that I've done a little election monitoring in my own time. And back in those days, it was a more human thing. Dick Lugar and Jack Murtha decided to send a delegation to the Philippines, so we went to the Philippines. And that's where Ferdinand Marcos told me that he was very enraged at the fact that the opposition was being so corrupt. I said, "What do you mean, Mr. President?" He said, "Well, they're charging 60 pesos per vote. The nuns are. The nuns are charging that." Of course, it was nonsense. And I said, "Well, what do they usually charge?" He says, "Oh, it was just 20 cents, 20 pesos. They've tripled the amounts." So...

MANN: Things do get better, huh?

WEINSTEIN: But...after a career in election monitoring at the Center for Democracy--in Russia, Philippines, a lot of really unpleasant places in Central America--I was very attached to it. What was the last thing we did at the Center for Democracy? We were asked by the Dade County Commissioners and the city of Miami to monitor the 2002 election with 2000 in mind, and that was absurd. But there we were, wandering the streets of Miami, going back and forth. And you know what? One little point that Patrick and others have made here--in fact, it's become the theme of the day--the human dimension of this thing. The fact is, they didn't have enough monitors. The distrust was so great in that community, what I did was very simple, working with IFES, working with the Center for Democracy. We flooded the place. We watched, we monitored 50% of the precincts. If you had a complaint, you were about 3 blocks away from an election monitor who could take up that complaint. I'm not saying that we have to do this all the time, but I'm saying that the building of trust and the building of confidence is one by one, person by person, and I think that's come out of this panel. It's a wonderful panel. You've done a great job. And let's thank them properly.

[Applause]

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