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The Official Quarterly Publication of the TrustTheVote® Project

OSET INSTITUTE

THE VO PROJE

Q3/22

IN THIS ISSUE

BUILDING THE PEOPLE'S VOTING SYSTEM

GREETINGS MEMBER/SUBSCRIBER—

Welcome to the first edition of our quarterly update, "The Tabulator." We think it's a fun name because it evokes the critical function of election administration: counting all the ballots. For us, it's about counting all of the events, news, and progress of the TrustTheVote® Project this past quarter.

The TrustTheVote Project holds strongly to the maxim that trust is the product of transparency and communication. It's like an equation:

Trust = Transparency x Communication

Time and again, as the many experienced former election officials on our team remind us, elections are far more likely to be trustworthy if the processes are completely transparent and there is a tendency to over-communicate. And the product of that (the old multiplication symbol) emphasizes the increase of trust as those two elements are combined. The ethics of the TrustTheVote Project extends this maxim to the underlying machinery of elections.

The TrustTheVote Project—made up of you, the members, and us, your technology developers—makes possible what has not been possible for 20 years: unbridled innovation in election technology. While holding strong to the value of the durable paper ballot of record, we recognize that machinery is still required for many aspects of election administration. Creating voting systems that are verifiable, accurate, secure, and transparent has been a challenge due to the dysfunc-

tional market and industry for this niche of government technology.

The TrustTheVote Project is breaking that logjam of innovation through a public open-source solution, what we call "The People's Voting System." A key ingredient to accomplishing this is keeping you—our member community—informed.
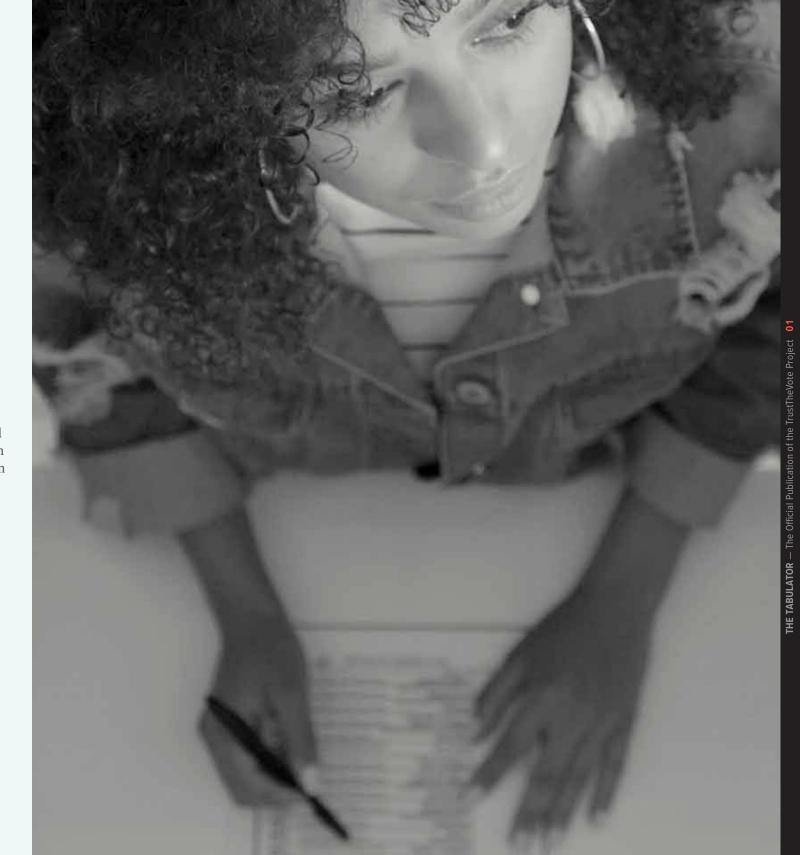
So, we are excited to provide you with our inaugural member/subscriber quarterly update to stay informed about our work and our community; to share that with others, and to be inspired to help make a difference. In doing so, together we can ensure the success of our mission to increase confidence in elections and their outcomes through public election administration technology—for generations to come.

This first issue is packed with content—interviews from election change-makers, progress reports from our technology foundry on the ElectOS™ voting software, and much more.

Please let us know what you think. ☑

Sincerely,

Gregory Miller
Gregory Miller
Co-Founder, Chief Operating Officer

Technology

MISSION PROGRESS

WE LIKE TO REFER TO OUR WORK at the Trust-TheVote® Project as a "software foundry." We think the notion of a "foundry" is a good analogy. It evokes images of factories creating molds and precision cast parts. That makes sense because we're building sets of software building blocks used to assemble apps and services to innovate the administration of elections and the voter experience. Turns out there are a number of software development initiatives underway and not just the "People's Voting System" (ElectOS™). Each quarter we update you on some of the most important projects underway at the TrustTheVote® Project.

Here is the 3rd Quarter update in the order of their current effort level, with a priority flag next to each to inform you how important your support is now.

- Green flag means the project is funded and rolling.
- Blue flag means funding should be coming, but needs help to get it done.
- Orange flag means we need funding help to stay on course.
- Red flag means help is needed ASAP as this is a high-priority project.

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Mark-It
This is an absentee ballot marking tool for the ~38M voters in the U.S. with disabilities that prevent them from regularly participating in person. The project is nearing completion of the user interface for a mobile device such as a tablet. Early demonstrations are planned for late summer and work is expanding into support for multiple languages, ranked-choice ballots, open primaries and more.

Rocky
This is our oldest technology work—the 3rd party voter registration platform used by Rock The Vote and many others. Work continues in software development and support of absentee ballot request services, and a host of other service additions. The key importance here is the integration of this technology with States' voter registration systems so state officials can quickly receive applications and process them without the error-prone problem of re-keying in the data.

Grommet
This is the canvassing tools for mobile voter registration services at events, or on campus, for example. Work continues on robust reporting and performance analysis tools, support for the ever-changing flavors of the Android mobile OS as well as continued development on Apple iOS. Grommet is in full use now, and the workload is keeping up with any technical issues in the field.

RCTab
This is the open-source ranked-choice vote tabulator that is rapidly growing in popularity and was used to conduct several RCV elections this past cycle including the Mayoral race in NYC. The TrustTheVote® Project through its parent, the OSET Institute has partnered with the Ranked-Choice Voting Resource Center to rapidly accelerate improvements and enhancements with adoption growing rapidly. Work is underway now, as well as potential for licensing the software to commercial voting system makers. Stay tuned!

Vanadium™
This is the ground-breaking ledgering system that wraps and "securifies" existing state voter registration database systems with a block-chain class technology to eliminate the risks of external cyber-attacks. Vanadium technology could one day completely redefine voter registration systems, making them faster, more reliable and efficient, as well as providing a tripwire service to detect efforts to compromise the data. Work is underway to deploy several pilot installations in time for the 2024 general election, with some possibility of a midterm test this fall.

VoteTracker+™
This is a super-exciting, and somewhat exotic break-through technology that is in the lab at a very early stage of development, but we think you're going to love this. Imagine the ability to go to a service to verify that your ballot has been counted as cast, once you've finished casting that ballot? Well, at a very high-level of explanation that's it! The system is currently in design with lots of early testing. There is a lot of cryptography, and exotic tech to make it work, and the researchers are using the popular software administration service, GitHub as a unique testbed. All signals are "go" to launch crowd-funding to build the actual pilot, so please watch for that as another important election verification tool you and our team can put forth to increase confidence in elections and their outcomes!

VoteReady™
So, if you think VoteTracker+ rocks, hold up, because VoteReady is already rolling out as a back-end service for monitoring changes to voter-rolls, and soon will be available for your own mobile device. VoteReady is like "LifeLock®" for your voter registration. The moment a change occurs or is about to happen to your registration record or status, your mobile device gets an alert. We're now in the depths of development of the Android and iOS app; the service is already essentially built. Your support of this project can help ensure we get this into voter's hands by September—when all of the voter roll finalization starts. Contact us to learn more.

Guthrie
One of the most important pieces of technology to trust the vote is apps and services to perform post-election verification using a process called "risk-limiting audit." Guthrie will be a software appliance that operates in the cloud to make freely available to all jurisdictions the software to perform post-election results audits. The project is in collaboration with UC Berkeley and the inventor of RLAs, Dr. Philip Stark. We are raising additional funds to cover engineering costs for the new software development effort, which are likely to be matched by larger donors and grants if we can demonstrate a groundswell of public support. Guthrie is critical to trusting elections and believing in the outcomes going forward, especially for 2024. Contact us to learn more.

ElectOS™
This is the people's voting system and our flagship initiative we need to finish by 2024. We're actively growing funding for this work which is an open-source software platform for the casting and counting of votes. It covers ballot tally and tabulators, the election management system, the ballot printer, and for those who need or want it, a ballot marking device. All of these components (and some other software) make-up the "People's Voting System." The underlying hardware, where required, will be off-the-shelf components from American companies like Dell®, HP®, and Intel® with some security verification modifications and ElectOS embedded. Current work is focused on the important and complex parts of trustworthy boot (start-up) and hardware integrity verification. ☑
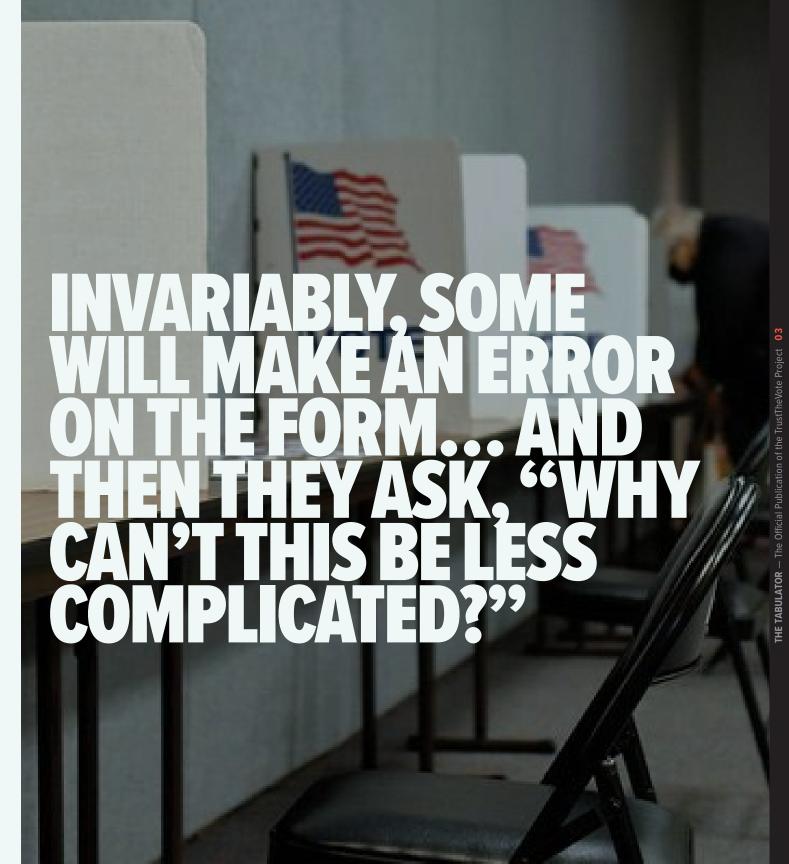
15 Minutes with Elections Expert

DR. THESSALIA MERIVAKI

by Genya Coulter

While there is no shortage of political scientists, academics who dedicate their postgraduate research to the election sciences are still a rarity. Our feature interview is dedicated to one of the trailblazers in this specific field, Dr. Thessalia Merivaki, Assistant Professor in American Politics at the Department of Political Science and Public Administration, Mississippi State University.

How did you initially become interested in researching the field of election sciences, specifically, voter registration policy and processes? Was this something you chose to study as an undergraduate or did your interest develop during your postgraduate studies?

I was drawn to Election Sciences very serendipitously during my graduate studies at the University of Florida, when I took a class on bureaucratic politics. I was not particularly interested in voter registration at that point, but was curious about how elections worked in the US without a centralized electoral institution. As a Greek citizen studying abroad, the US election structure was very different, so the idea that every US citizen has different voter experiences depending on where they live was fascinating. I was exploring some literature on election administration, and came across a paper by David Kimball and Martha Kropf on provisional voting in the 2008 elections. This paper made everything click for me: Why would voters show up on Election Day and wait in line to vote, only to be told they are not registered and get their provisional ballot rejected? That's how I realized that it all starts with voter registration. We have to understand how it is designed, administered, and reformed across the

INVARIABLY, SOME WILL MAKE AN ERROR ON THE FORM… AND THEN THEY ASK, "WHY CAN'T THIS BE LESS COMPLICATED?"

states. And we have to understand why it is not easy for many voters to get their name on the rolls, especially since registering to vote has arguably become easier since the 1990s. I was fortunate that I worked closely with Dan Smith and Mike McDonald, who connected me to election officials and other election stakeholders, and encouraged me to establish rapport with the election administration community. Many of the Florida election officials I routinely reach out to with questions, I met as a graduate student.

Does your research show that voters are more likely to be disenfranchised due to flawed/discriminatory voter registration policy, or because of errors encountered during the process of registration ?

I am always cautious to equate flawed institutions with discriminatory institutions. No doubt some structures are designed with discriminatory impact. For voter registration, my research finds evidence of both flawed, or insufficient design and errors during the process. Paper-based registration is a useful example. Complex forms to fill by hand, and frequently, what happens is that a key piece of information is missing. I run registration drives with my students every year at Mississippi State (Mississippi does not have Online Voter Registration). Before we work on campus, I give a MS registration form to my students and before they fill it out, I ask them if they think there is something complicated about it. They all say no, they're registered to vote already, so they have already filled it at some point. Invariably, a few will make an error on the form: incomplete address, forgetting to sign, etc. Then they ask "why can't this be less complicated?"

These differences matter, because even a change in how we enter our information can have a significant impact on our ability to vote. If information is missing, the registration form will not be processed and will stay in limbo until the applicant completes it. I find that young people are less likely to complete their forms, and they won't be registered.

Online voter registration databases have become a

hot cybersecurity topic recently. Is there or does there need to be a way for local election officials to verify that the only person registering or updating the voter's file is the voter or the election staff authorized to access the database?

What a great question! It is a difficult one to address, because there may be obvious security protocols, but how do they impact access? If we have learned anything from research and practice, it is that voters must be given options depending on their needs and the resources available to them. I am aware of efforts to track changes in a voter's record that may be unauthorized or improper, in which case a "red flag" on a voter's record is triggered and the local election official can then check and contact the voter to verify. This is a useful tool, but contacting voters should be done in a way that does not create uncertainty about the security of the process.

One of the large-scale data collection projects you've embarked on (in collaboration with Dr.Chris Mann [Skidmore College] and Dr. Ioannis Ziogas [University of Mississippi]) involves assessing the complexity and success of celebrity driven voter registration campaigns on social media. What are the challenges involved in a project so ambitious?

This project is taking so long, because voter registration structures are so complex. We have to be careful when making a blanket claim that "it was easier for registrants in OVR states to register than registrants in non-OVR states." Yes, that is a robust finding. But, for whom is it easier? And do celebrities really drive registration, or do they increase voter registration visibility during critical dates, such as the National Voter Registration Day, or during a state's registration deadline? We have already communicated these findings to practitioners who work in the field. For the academic audience, however, establishing causal relationships is key, and that's why we are careful about which claims we make about the impact of such registration efforts on social media.

What can the tech world do to assist current and

future research on the academic side of election administration and policy research?

I have been fortunate to work with many practitioners on research, because a lot of the things we do have tangible policy implications. Our work in Election Sciences relies on such partnerships. Every academic will say that they need funding and it is true. That is because much of the research we do requires access to data that are not immediately available. Partnering with the tech world also increases the robustness of our findings, what we often call external validity. For tech companies, it can solve the problem of finding short-term expertise to address a specific question. Both sides win, because the product can be communicated more effectively to policy makers, and increase the credibility of the science.

In an ideal future, what would you ultimately want academics and election administrators to remember after they've read your book, studied your research or watched recordings of your presentations?

I want them to think of me as one part of a larger network of individuals who want to make the US elections work. I want them to refer to my work as a useful tool that highlights important questions in how elections are run in the United States, and draw from my research to design other research and election policy. I also hope that they are able to catch the #electionnerd vibe from my recordings, because I love this work and I deeply care about the impact it has on US democracy, beyond my publication footprint as an academic. ☑

The Official Podcast of the TrustTheVote Project

Gregory Miller   **Cameron Quinn**   **John Sebes**

Join Us!

"The OSET Institute is bringing a strong voice for the people to its TrustTheVote® Project with their 'Dead Men Don't Vote' podcast. This will be the show for important and timely conversation about how America conducts elections—the good and not so good—and how to make it work better."

– Joe Trippi, Host of "That Trippi Show"

TRUSTTHEVOTE.ORG/PODCAST

COPENHAGEN DEMOCRACY SUMMIT

This year, the OSET Institute was honored and humbled to receive five invitations to the 5th Copenhagen Democracy Summit, which took place on the 9th and 10th of June in Copenhagen Denmark. Due to some scheduling conflicts our delegation ended up including four of the Institute's leadership in person and two more by remote video link.

This annual summit unites democratic forces to push back on the authoritarian tide, and promote democracy, which was the mission when the Alliance of Democracies inaugurated the summit series five years ago with (then Vice President, now President) Joe Biden as their inaugural keynote speaker.

While witnessing Russia's invasion and attempted destruction of Ukraine, the Summit gathered 500 of the world's top pro-democracy thought-leaders in the battle for freedom and democracy. And from the view of our delegation there on the ground, it was nothing

short of a moral imperative. The event provided a global platform and was attended by individuals from dozens of countries. There was an A-list of participants including former **U.S. President Barack Obama**, who among other activities, delivered a moving closing plenary keynote.

This was an amazing opportunity for the OSET Institute to send an entire delegation and broaden our outreach and participation, although a single representative from the Institute had attended the preceding four editions.

Thursday was dedicated to technology and democracy including a democracy and tech entrepreneur fellowship meeting. Friday focused on how to defend Ukraine, counter authoritarian powers, and to continue building an alliance of democracies. And threaded throughout the jam-packed two days were side meetings, hall-chats, and gatherings at every meal over the course of four days when counting the weekend.

Most special to us was the honor of co-hosting an invitation-only side meeting with the Transatlantic Commission on Electoral Integrity (TCEI) to discuss the future of disinformation—for our part focusing on the threats to elections administration and election officials and workers. While we cannot disclose the participants in that Thursday evening meeting, we can assure you that some of the most amazing thought-leaders on the subject matter in the world were present for an engaging hour and a half conversation. Our own Board member, **Eddie Perez** helped open the conversation with opening remarks together with fellow OSET Institute board member **William P. Crowell**, which you can read for yourself here.

This fifth edition of the Summit was the first year back in person due to the global COVID pandemic. And given all of the current events in democracies around the world, including the U.S., the attendance

was completely full with a wait list that was ultimately served by video link for several of the sessions. For the OSET Institute and TrustTheVote Project, several new relationships were established and several others renewed.

The Institute's mission is global in cause and our delegation were constantly reminded that many of the challenges we have state-side in election administration are present in other democracies as well. At the same time, the world continues to marvel at the miracle of our democracy – as the late President Reagan once characterized the orderly transition of power in America, which began from the start with President George Washington.

Yet, we must be candid in reporting that some attendees admitted they were shaken by the post-election chaos of 2020 in the U.S. and the events of January 6th. Members of our delegation spent time discussing this with these attendees, reassuring them that our democracy held; it is strong; that we believe accountability will be had; and steps—legislative and otherwise—will be taken to further strengthen the process of orderly power transition.

Inherent in those conversations, however, was the issue core of the 2020 post-election fiasco, and what permeates our cause: trust in the machinery of election administration. To that end, several actionable introductory conversations resulted in new opportunities to assist with election technology innovation initiatives from the U.K. to Kenya.

This was an important and actionable event and a productive relations-development trip for the Institute's global work and ever-increasing awareness and knowledge of the TrustTheVote Project. Our belief was validated that building the "People's Voting System" is not just something for all Americans, but a solution sought by democracies worldwide. How awesome is that? ☑

Developer Spotlight

ANNE O'FLAHERTY

by Genya Coulter

Anne O'Flaherty joined the team in June 2016, and is a Senior Member of the Technical Staff - Mobile Development at the OSET Institute.

You've been part of some really successful civic and gov tech projects—like the Rocky 3rd party voter registration platform RockTheVote, and so many GOTV organizations use, and now an App to help voters with disabilities. How did you first become interested in software engineering?

Working in software engineering was a happy accident: my first job after college was as support staff for a business incubator. I was fascinated with these young companies developing innovative software and I began to get involved however I could. I prefer to be at the intersection of technology and people, so working at OSET Institute fits me perfectly: delivering technology that improves people's lives. I feel strongly that people must own the technology on which we cast and count our ballots. There is a lot of interesting technology available to ensure that happens in a verifiable, accurate, secure, and transparent manner.

Why is public technology or open source important for democracy administration in general, and election administration in particular?

Open source, also known as public technology, has become a common method for developers to share what they have produced. It also provides a significant measure of transparency to the underlying technology which is important for public trust. In contrast, the general public cannot analyze or improve on proprietary software. An example from a few years ago: states purchased devices known as direct recording electronic (DRE) voting machines. But as a closed and proprietary machine, no one could verify it was counting accurately.

In your experience, what are the most common misconceptions about managing public benefit open source projects versus traditional commercial software development?

People think open source projects are unwieldy and are riskier because they rely on unpredictable resourcing. I find that our development methodologies and tools we use, like GitHub, encourage collaboration. Our model allows for a mix of funded regular contributors plus volunteer contributions within a predictable development process. For example, I may invite a developer experienced in a specific area like security or accessibility to team with us to improve our product. Development errors can occur regard-

less of how the software is distributed—open source or closed source. The more collaborators involved, the more likely we find and resolve any errors before it impacts the end user. An integral part of my responsibilities is maintaining our software. Over time software can become vulnerable and obsolete. TrustTheVote Project members' support ensures our open source projects are properly maintained so the software is the highest quality possible.
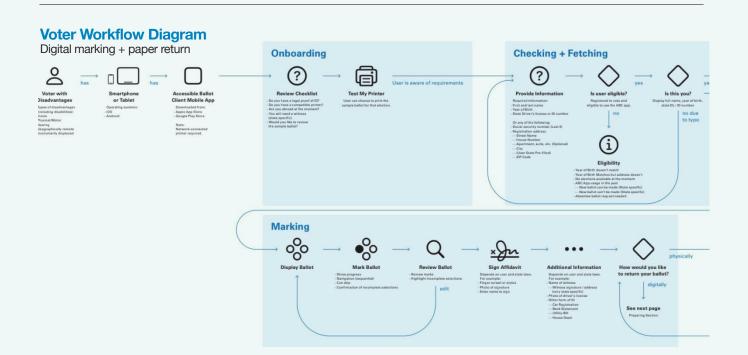
Given your specialty here is mobile App design and development, how do you see the legacy desktop computing and online experience evolving in the rest of this decade?

There is a shift to mobile computing as our phones become more powerful and desktop computing becomes less relevant. Mobile identity verification and encryption are now easily accomplished with mobile devices and that trend is accelerating. In contrast, most people no longer own a desktop and are accustomed to working from anywhere. I use an app to securely deposit a check and to lock my car from my kitchen, so why isn't there an app to remind me of an upcoming election or notify me that my absentee ballot was mailed today?

What excites you the most about the projects you're working on at OSET Institute and the TrustTheVote Project?

I get excited that my software provides people access to a government IT platform via a device they use every day. I have worked with some amazing experts in the field to adapt theory into an app. Recently I have been meeting with accessibility experts and I have been humbled by how many commercial apps are not usable for everyone. OSET Institute's software model is distinctive: we develop a project and then encourage election jurisdictions to adopt, adapt and deploy it. Those jurisdictions or vendors have the option to engage the Institute or TrustTheVote Project to alter the specific project to better meet election officials' needs. OSET Institute's mission to innovate while increasing our confidence in elections is very important to me. Our democracy depends on it. ☑

Voter Workflow Diagram
Digital marking + paper return

Donor Spotlight

"JULIE B."

Julie B. (last name withheld by request) has been a faithful annual supporter of the OSET Institute since 2013. She has made repeated and significant contributions over the years. Julie is a senior-level banking executive working in healthcare supply chain finance for a major national bank. She considers herself a pragmatic fiscal conservative. She is civic-minded and an engaged voter, and calls herself "passionately pro-democracy." Our Donor Relations Management Director caught up with Julie to chat about her unbridled support of the OSET Institute and Trust-TheVote Project.

Julie it's so great to chat with you; thanks for agreeing to talk.

My pleasure; this is such an important and unique project.

When did you first decide to support the OSET Institute and TrustTheVote Project?

Well, let me think back; you know I've been giving to the cause for several years now and I think that goes back to 2013.

Thank you so much for your dedication to the cause; in fact our records show it has been nearly 10 years and you've been very generous in your support, for which the entire team is deeply appreciative. What prompted you to get involved?

You know it was 2013 for sure because it was after Barack Obama's re-election and it was clear then that there were concerns about the voting machines in

2012, and I feared what could happen if an election was ever super close again like we went through in 2000 with Bush and Gore.

So, you were concerned about voting machines being hacked?

Sure, but honestly I was really concerned about the fact that we have no way of knowing if the machines are counting correctly, or how they work, or how election results can be verified. And OSET was calling for more transparency in order to trust the vote, and that just spoke to me.

With that in mind, why do you believe that giving to the Institute, and the TrustTheVote Project is so important?

I am not sure we can ever trust the machinery so long as it's closed and controlled by commercial vendors, and I know of no other project or cause out there that is working on new voting technology that would be truly transparent and belong to the public.

So you believe that trust requires transparency?

Oh, very definitely. Look at what happened in 2020 and last year with the "stop-the-steal" and all the baseless claims that the election was thrown. There were, what, 50 or 60 lawsuits? And none of them succeeded. On the one hand, that suggests there is a lot of distrust and we need to change that; and on the other, whether something actually went wrong or not, just the fact that someone can claim it did creates so much chaos that we have to get to a place where the

process of elections is trusted. And I think that means the machinery too—it has to be fully trusted so that it's no longer the scapegoat like we saw with Dominion (the voting system vendor). I'm glad Dominion is taking a stand and suing for defamation.

Yes, a lot of unsupported claims were unfairly made about Dominion and others, and while we think their equipment needs to be vastly improved, the unfair damage to their brand aggravated all of it. So, people are always going to claim something went wrong, and that leads me to my last question, what is it about the work of the OSET Institute and TrustTheVote Project that you believe can change that?

"EVERYONE CAN BE A PART OF THE PROJECT TO ENSURE OUR VOICES ARE HEARD AND OUR BALLOTS ARE COUNTED AS CAST."

I love the different points OSET makes on its websites and social media; they all are key, like "Building the People's Voting System" and "Technology Transparency Now" but the one that hits home for me is "Invest in the future of democracy, support building public election technology." You know, we spend billions on political campaigns, and we spend hundreds of millions on election security, but as I understand it, until we invest in entirely new voting system technology that's–how do you say it–the "VAST mandate," until that gets done it will be hard to trust the vote. That is, after all, your project name, "TrustTheVote."

*Yes, the VAST Mandate means election technology that is more **Verifiable**, **Accurate**, **Secure**, and **Transparent**. And we have to admit, there was intention in the name, "TrustTheVote Project." OK, so one last thing, can we assume you encourage others to support this work?*

Oh Lordy, yes! Just think about it, you talk about the 24-For-24 initiative to get one million people to support the work for just $24 so it can be done by 2024, right? That's so important and really do-able; I mean look at how many people give $25 to their favorite candidate? And this is tax deductible! It's also so great that everyone can be a part of the most unique project to ensure our voices are heard and our ballots are counted as cast. I cannot emphasize enough how imperative it is to support the TrustTheVote Project, give at least an amount equal to what you'd give your favorite candidate. It's like an insurance policy that your votes will count as you cast them for the candidate you're supporting.

Julie, thanks for taking the time to speak with us about your support for the OSET Institute and the TrustTheVote Project. You're a cherished permanent member of the team and your name will join all of those who support this work—it literally will be etched into the original copy of software code to be stored at the U.S. National Archives when done.

Thank you for this incredibly important project and opportunity to do something to help save democracy. Having trustworthy elections whereby the voice of the voters are represented is one of the biggest threats facing our nation today. ☑

OSET INSTITUTE | TRUST THE VOTE PROJECT

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