



Electio Reformo

A Manifesto of Sorts

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A Moral Imperative

Half way into 2020 and faced with an upcoming general election that portends epic consequences for our democracy, a recent 2020 Gallup poll¹ reveals that about six in ten Americans say they aren't confident in the honesty of our electoral process. Let this settle for a moment: *60% of us cannot trust the vote.*

If we, the people, do not trust the voting process, then our representative democracy is failing.

The TrustTheVote Project is a movement of citizens who cherish the voting process as the most sacred component of our entire system of government, and chafe at any threat to the accuracy and credibility of the counted vote. It's not enough for an election to be validated by experts — what matters is that we, the people, *trust* the system that determines who represents us.

What does it mean to trust the vote? It means that the populace believe the following to be true:

- 1) anyone who's legally allowed to vote —*and nobody else*— can do so in a convenient time, place, and manner;
- 2) that our votes are counted precisely as cast; and
- 3) that the announced results are a true reflection of ballots received.

We believe that the *only* way to improve trust in the voting process is to make its functions as transparent as possible using *publicly-owned* technology. When elections officials choose software, the source code of which is validated as secure and reliable by independent experts in a transparent and public manner, then (*and only then*) can the public's faith begin to be restored—both in the “Platform” (*the system and its technology*), and the “Process” (*the ways and means of election administration*).

In short, to increase confidence in elections and their outcomes we must move away from proprietary, black-box voting systems to publicly-owned glass-box solutions.

But where to start to restore trust? There are myriad “pro-democracy” groups advocating for changes in the letter or interpretation of election law; pounding pavement to register voters and ensure they reach the polls and cast a ballot; and even litigating to ensure elections run correctly and fairly. The TrustTheVote Project is a complementary “pro-democracy” effort, but rather than working at the edges of the ecosystem, we're focused on the core machinery (*what we often refer to as the “Platform.”*)

¹ <https://news.gallup.com/poll/285608/faith-elections-relatively-short-supply.aspx>

While a great many of us care deeply about and advocate for our own political persuasions, our membership in the TrustTheVote Project is entirely independent of whom we want to see in office or what we want them to do about the issues of the day. So, we're an apolitical movement, and we want our ideas and candidates to win on the merits of their ability to persuade citizens and garner votes in a fair, trustworthy system, void of gaming that system for unfair advantage.

At the core of the problem is the fact that all of the software used to operate the machinery and services that administer elections— the very programs that keep track of who can vote, prepare and distribute ballots, count the votes and tell us the winner —are black boxes that experts aren't allowed to review or critique.

Three private companies who provide this technology have both a misguided notion of “*security-through-secrecy*,” as well as a fear of losing competitive advantage if their software was public. And this leads them to tolerate public distrust of their products because states and counties have no real alternative. To put a fine point on it, three vendors control nearly 90% of America's public voting infrastructure, and states and counties are bound to depend on them.

Regrettably, the states haven't leveraged their powers as regulators and purchasers to require openness or public scrutiny of the software that largely determines who shapes the destiny of our country. It's a perfectly reasonable business request to ask to review the code— plenty of commercial companies allow inspection when appropriate. However, the strategy of, “*If nobody can see it then nobody can learn the secrets*” is a dangerously mistaken approach to security in a world with very clever nation-state hackers with endless resources and every motivation to disrupt or destroy our way of life.

The only thing these “black box” closed systems leave open is a dangerous space for speculation and fear over hacking, manipulation by mendacious actors, or other tampering that simply cannot be disproven. Continued reliance in some places on machines with a digital-only tally, and no paper record, exacerbate these concerns. In fact, for the foreseeable future of innovation in election technology, the absence of a durable paper trail will cast all balloting into doubt.

A key point here is that whether the machinery is actually secure— and there's plenty of evidence that it may not be —is secondary to the fact that a large portion of the public simply doesn't *believe* that it is. With collapsing trust in the vote and both domestic and foreign attackers poised to take advantage of that to threaten the stability of our democracy, ensuring a trustworthy voting infrastructure and experience is nothing short of a *moral imperative*.

Solving For Increased Confidence

Fortunately, there's a solution. The manifestation of the ideals of the TrustTheVote Project is in a *publicly owned* election technology platform, built to address the real-world needs of election officials, with four cornerstones to establish trustworthiness:

1. **Verifiability:** All processes and platforms of elections must be evidence-based; that is, they must be provable in the correctness of their operations. The ability to audit is essential. Thus, a base tenet for the foreseeable future is voting must utilize a durable paper ballot of record. Paper ballots are evidence of voter intent and help ensure that results can be independently audited. We have more to say about paper ballots below.

2. **Accuracy:** All equipment and technology of elections must be fault-tolerant in order to be absolutely certain that what's marked on a ballot is what is recorded and counted.
3. **Security:** All processes and platforms of elections must be as secure as possible. No system is ever completely secure, but world-class security is compulsory given the government's designation of election systems as "critical infrastructure." It is imperative that security-centric engineering and development practices be persistently employed in production of election technology.
4. **Transparency:** In all processes and platforms of election administration there must be complete transparency. The TrustTheVote Project rigorously applies open source principles to produce public software. This means anyone can inspect and critique how the technology works.

These four tenets form what the elections professional community call the "VAST Mandate." For the TrustTheVote Project they are maxims. And the principal work of the TrustTheVote Project that results from these mandates is an election technology platform called "[ElectOS](#)" (we pronounce it "Elect-Oh-S").

The objective is to have ElectOS become the most compelling option to legacy commercial voting systems when state and county contracts start to come up for renewal beginning in 2022.

If adherence to these cornerstone principles of the VAST mandate isn't convincing enough to win over election officials, it turns out that ElectOS will likely be about 65% *less* expensive—which means more of our taxpayer dollars can be directed to other more important needs, or simply used to make more voting machines available and reduce those long lines even further.

The Pillars of Trust

The people of the TrustTheVote Project—*you and us*—can be part of the "pitch" to advocate for the largest digital public works project ever, and ask the decision-makers in your state, county, or township to adopt the system of we the people: ElectOS for future elections. By advocating widespread adoption of ElectOS, we the people of the TrustTheVote Project can make the voting process more trustworthy through four principles or pillars of trust:

1. **Transparent technology**, which can be critiqued and improved to independent experts' satisfaction, to assure everyone that the system is as tamper-proof as possible. And if any vulnerability should arise it can be quickly resolved.
2. **Paper ballots**, which are currently the only trustworthy means of verifiable voting. They are an indelible artifact of voter intent, independent of the system used to tabulate votes, and there is no way a hacker can change what's on a piece of paper.²

² Emerging forms of online voting, such as using the Blockchain, simply ignore the legal processes of election administration, and are too new to be trusted by the broader public or to be entrusted to tabulate something so sacred as our ballots. However, one day we will get there. That means the TrustTheVote Project seeks to responsibly and constantly push the envelope, so our work continues to address (and solve) some very hard computer science problems to make voting from your phone one day possible.

4. **Removal of restrictive commercial mandates**, which have depressed innovation in the development of election technology. Removing those mandates allows a fresh focus of designers and developers to be exclusively on public good, rather than balancing the interests of shareholders. The TrustTheVote Project, as a movement of the people, converges public benefit with shareholder interests because the technology is publicly owned. And one thing we know from experience: innovation flourishes unbridled in the absence of restrictive commercial mandates. Thus, the results will be more secure, reliable, and user-friendly, with faster updates than the current lethargic commercial lifecycle.
5. **Public ownership**, which ensures technology core to administering our democracy is of the people, by the people, and for the people. While a vibrant competitive commercial market to professionally deliver, service, and support finished voting systems is a key ingredient, the underlying software technology must enforce a level, verifiable, and transparent field of play for the market. Public ownership of the software technology will ensure lower cost, easier to use, and all around better voting processes, systems and above all, experience.

In a few years, the TrustTheVote Project will go a long way in restoring trust through technology that is of-the-people, by-the-people, and for-the-people with verifiability, accuracy, security and transparency as its bedrock.

Right Here; Right Now

However, amid the chaos and fear of 2020, where a health pandemic, civil unrest of a proportion America has not endured since the late 60s, and the president's inexplicable posture on voting by mail are all further eroding trust in and access to our already fragile election procedures, the TrustTheVote Project is working to help fill whatever gaps it can to increase the chances of a successful (*i.e., more trusted by the people*) election. We're pursuing this guided by five principles and priorities:

1. **No-excuse vote-by-mail for all eligible voters in the face of national crisis.** Nobody should have to choose between exercising their right to vote and avoiding a dangerous virus. This includes special accommodations for persons with disabilities who often rely on in-person voting to use ballot marking machines. We would prefer ballots to be automatically mailed to all eligible voters, but recognize that some states are unwilling to do so; thus, wherever possible we stand ready with technology to make the process of absentee ballot request, easy, convenient, and simple. We're also prepared to technically support those whose accessibility needs require them to digitally mark a ballot at home. And we even have technology to help verify ballot envelope signatures. The TrustTheVote Project can help ensure by-mail voting sustains its trustworthy track record.
2. **Best efforts to secure and improve voter rolls.** The most vulnerable aspect of our election system is proving to be the voter rolls themselves, many of which are insufficiently secured and all of which are subject to incorrect administrative removals. The remedy of a provisional ballot is a risky hassle in the best of times; this year, errors of commission or omission risk rendering millions unable to vote. We're doing our part by developing a tool

called [VoteReady](#) to allow people to automatically keep tabs on their registration status, but it's up to election officials to maintain the security of their rolls, and we can help there too with a security service we're building called [Vanadium](#).

3. **Wherever possible, risk-limiting post-election audits.** Employing the practices of a simple ballot auditing technique can provide maximum assurance that the loser of the election actually lost, fair and square by statistically proving the ballots were counted as cast. This technique has been successfully employed in a handful of states. We believe it must become nationwide, and while to do so by November 2020 is effectively impossible, what is possible is to focus on the likely most contentious jurisdictions where the election for President will be decided.
4. **No Internet voting.** Submitting votes over the open public Internet— even with encryption —is a huge technical and security risk, and this election is far too important to leave to an untested technology. Let's start with school board elections, not Presidential. With the majority of Americans distrusting elections as it is, the last thing we need is the mile-wide opening for doubt that a system, without physical ballots of record, and operated on the inherently insecure public Internet would introduce.
5. **Pragmatic, broadly acceptable solutions.** The TrustTheVote Project and its movement is (and should be) comprised of those unafraid of technology and forward thinking for progress and innovation. However, as a principle we also believe that just because something is technically possible, doesn't mean its practically feasible. And more importantly, technology done right should not provide unfair advantage or enable gaming of systems. Accordingly, we pursue solutions that set aside partisan-flavored priorities in favor of ensuring success — we're concerned with keeping the wheels on the bus; not affixing shiny chrome hubcaps. Just as we have this list of priorities for 2020, so too should politicians focus on getting things right in the short term, and resuming the bigger debates once we're on the other side.

Code Causes Change

However, one of those larger debates is ours to resolve. And resolution requires action wherein the strategy is delivery. Thus, another maxim of the TrustTheVote Project is that “*code causes change*.” And the time for that change is *now*. The truth of the matter is— from the direct working experience of our parent, the OSET Institute —we know America's election infrastructure is on the brink of collapse. Consider that:

- It suffers from dangerous, inherent vulnerabilities in the underlying hardware;
- It is possible key components of the infrastructure have already been compromised;
- The legacy infrastructure is vulnerable to gaming;
- The entire system design must be completely re-thought; and
- Time is running out on the status quo.

The good news is the TrustTheVote Project. We already have invested years in engineering what a public infrastructure needs to ensure it is truly verifiable, accurate, secure and transparent.

And the result— ElectOS —will be a generational solution that lays the foundation for an easier, more convenient, dare we say delightful voting experience with technology that is more secure, lower cost, easier to use, and can ensure maximum accessibility and participation.

Change Starts With Us, We The People

With that heavy lifting of design out of the way, now the TrustTheVote Project needs to become that public digital works project that is truly of, by, and for the people. It needs you so we all can finish the work and push for its widespread adoption.

By joining this movement and becoming a rightful citizen-owner of the result, we the people—*you and us*—can bring about one of the most significant, dare we say dramatic, changes in the administration of democracy in generations—publicly owned technology upon which we can confidently cast our ballots, and know that those ballots are counted as cast—not some of them. All of them. Every time.

It is time to get the work done that no one else is willing to do in order to immutably increase confidence in elections and their outcomes.

The TrustTheVote Project now needs all citizens, all voters, everyone to join the movement to trust the vote. Enough is enough. November 2020 must be the last time where we conduct a national election on the inherently vulnerable, untrusted, proprietary systems our democracy is depending on for the orderly transfer of power.

Now It's Up To You

If what you have read here resonates in any way, we want to hear from you. Tell us what you think of our beliefs, our principles, and our plans to produce the next generation of our election administration platform as a public property owned by we the people. And share with us your ideas and vision.

Above all, join the movement to trust the vote.

This election of 2020 must be the very last one that is forced to rely on this failing vulnerable infrastructure, leaving the outcome to uncertainty where every ballot could be a bet.

Send us your feedback to:

trust@osetinstitute.org

Join the TrustTheVote Project here and become a shareholder in the future of our democracy:

<https://trustthevote.org/join-the-movement/>