The Fallacy of Paper: Why returning to all-paper elections is not the answer

Recent media attention around voting system failures and the potential for election hacking have academics and anti-technology crusaders campaigning for exclusive reliance on a paper ballot. The misguided assumption that manual paper processes, with the high potential for human error and very simple manipulation potential, are somehow more unassailable than encrypted digital voting is both an intuitive and a mathematical fallacy. It is a misconception that could jeopardize the integrity of elections.

The Evidence

While media pundits like to theorize about hypothetical hacking scenarios, there is no need to imagine situations in which a paper ballot can be compromised; it happens all the time.

Manual, paper-based elections have a well-documented history of errors, primarily due to the reliance on imperfect humans. Accidental mistakes can be easily made by volunteer poll workers, election officials, and even voters themselves, who often unknowingly mismark their ballots, rendering them invalid. There is also the potential for wrongdoing by people who deliver ballots to central counting facilities, both volunteer and those employed by the US Postal Service. Even those with the best of intentions could inadvertently invalidate or misplace a paper ballot, because unlike a digital election where tampering would require advanced specialized knowledge- and be noticeable and preventable to well-trained IT security personnel- it is not difficult for the average person with a malicious agenda to manipulate or discard a piece of paper.

Familiar though paper voting may be, it is simply not secure. Familiarity does not equal high integrity. Paper-only elections, as exemplified by the following real life situations, are not secure or reliable, and sometimes they are not even accurate:

- Paper is easy to tamper with by marking, tearing, or misplacing, and could happen at any stage in the voting process: at the poll center, in transport to the county office, or while at the county office waiting to be scanned, like in Oregon and Ohio

- Insufficient quantity of ballots at poll stations can lead voters to either leave without voting or wait hours for new ballots to be delivered, disenfranchising voters. Florida is one example; Arizona another.

- Party ballots can be misplaced at poll stations, either intentionally or accidentally causing extreme voting delays, like this year in [Polk County, Fl](#)
- Absentee ballots can easily obtained by other people, leading to voter fraud such as in [St. Louis](#)
- Unlike digital voting, which allows for accessibility options such as screen readers or sip-and-puff devices, paper does not allow for independent secret voting for voters with visual or motor disabilities. States are [now being sued](#) for only providing paper options to blind voters.
- Violence or protest at poll stations can lead to spoiled ballots such as in [Mexico](#), where protestors destroyed ballot boxes and burned ballots.
- Vote by mail requires a signature on the outside of the envelope, allowing for the possibility of identity theft, while also connecting the ballot to the voter's name, robbing voters of the right to privacy
- The only security with absentee mail-in ballots, invented in 1865 by Abraham Lincoln, is paper and spit.

Mail-in Voting: An Unnecessary Risk

Security should always be a primary concern in elections. Wrapping a hand-marked piece of paper in another piece of paper, dropping it in an unguarded box and trusting that it will end up where it needs to go is an unnecessary security risk. While voting absentee by mail has seen an uptick in recent years, anyone who believes in the infallibility of the US Postal Service must be in the enviable position of having never lost a package. Trusting one of the most important tools in the democratic process to an organization that is cutting services due to near bankruptcy, and loses approximately 5% of its deliverables, should not inspire confidence that a ballot will arrive safely and in time to be counted.

Recently [federal authorities uncovered more than two dozen separate cases of mail theft and related crimes](#) by employees of the United States Postal Service throughout Southern California. Prosecutors have charged 33 defendants in 28 separate cases with offenses including fraud, conspiracy, and embezzlement. During the investigation, they found roughly 50,000 pieces of undelivered mail. Any of those could have been a mail-in ballot.

In short, continuing to do elections as they have always been done, just because they have always been done that way, is a recipe for disaster.

The Solution

The best and most secure voting solution is using unique military grade encryption for every single ballot. By utilizing proven technology, an election can have two paper and two digital records for every ballot — each one encrypted and from a different data set — allowing multiple ways to immediately audit an election and be certain every vote was cast as intended.

Using a platform like eLect® Online Voting or eLect® Quad Audit, eligible constituents have the ability to cast their votes quickly, easily and securely from anywhere in the world, while allowing complete auditability and transparency. A secure, digital solution with a combination of online technology, military-grade security and innovative election administration, the eLect® Voting platform offers a long-term, sustainable solution that makes the paper-only process obsolete.

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