

Voting Machines & the 2020 Election*

by Susan Ruch / June 2021

It is clear to millions of Americans that the 2020 election was rife with problems and that it was manipulated. This research paper attempts to shed some light on what happened. We hope you find it of interest and will share it with others.

History

The right to vote in a free and fair election is the most basic civil right, one on which many of the other rights of the American people depend. Considering the tremendous controversy swirling around the 2020 election we must think carefully and act forcefully to protect our democracy from both internal and external threats.

1. Voting Machines: History of Smartmatic, Sequoia, and Dominion

- A. **Socialization of Venezuela** Fidel Castro felt isolated and alienated from Russia after the 1962 Cuban Missile Crisis and the lack of Russian financial assistance. He saw Venezuela as the crown jewel of Latin America and set his eyes on bringing about a socialist revolution there. His big break came in 1994 when Hugo Chavez visited Cuba after his release from prison.

Chavez had great charisma and a drive for power, and Castro decided to groom him for the presidential election in 1998. He was elected that year as the President of Venezuela. In exchange for Castro's support, Chavez agreed to indoctrinate Venezuelans into socialism and train the Venezuelan military in Castro's style of military control. Furthermore, Cuba supplied Venezuela with 20,000 medical professionals and educators and Venezuela sent Cuba 53,000 Barrels of oil a day.

- B. **Smartmatic's Founding and Growth in Venezuela**¹ In 1997 Antonia Mugica, Alberto Anzola and Roger Pinate founded Smartmatic in Venezuela. They created a consortium called SBC which included Smartmatic, Venezuelan Telecom provider CANTV and the software company Bitza and began developing voting systems. On April 11, 2000 Smartmatic was incorporated in Delaware, the world's top secrecy jurisdiction. (Ironically, Joe Biden was the state's Senator at that time).²

¹ The Link between Dominion, Sequoia, Smartmatic and the CCP. This article got Powell banned from Twitter, <https://www.investmentwatchblog.com/censored-across-the-web-the-link-between-dominion-sequoia-smartmatic-and-the-ccp-the-article-that-got-powell-banned-from-twitter>

² State of the Nation November 19, 2021[2] Delaware – a black hole in the heart of America, <https://www.theguardian.com/business/2009/nov/01/delaware-leading-tax-haven>

Smartmatic's big break came in 2003 when the pro-Chavez National Electoral Council replaced all existing systems with Smartmatic systems in the run-up to the Chavez recall referendum of 2004. Chavez prevailed in the referendum and many voters felt that they had been cheated. One study proved that the Smartmatic machines were Bi-Directional, and there were concerns about how data was reported to the CNE (National Electoral Council) server during the referendum. The most suspicious data point is that the Smartmatic system contacted the server before printing results. This provided the opportunity to change results and defeat the rudimentary checks set up by the international observers.

- C. **Smartmatic and Sequoia Pacific Systems:** In 2005, using the proceeds from the windfall deal with Venezuela, Smartmatic was able to purchase the much larger and well-established American company, Sequoia Pacific System Corporation whose AVC Advantage DRE voting system had been certified in several states. The expanded company grew rapidly.

However, suspicions of undue influence from Venezuela and irregularities in Florida and Cook County, Illinois resulted in US government intervention due to national election security concerns. Congresswoman Carolyn Maloney (D-NY)³ shined the congressional spotlight on the Sequoia purchase by Smartmatic because it posed serious national security concerns about election integrity. Smartmatic was ordered to divest of its control of the former Sequoia Pacific company, and a new entity, Sequoia Voting System Holdings, owned by an American management team, was formed. But the split was not complete, and Smartmatic retained intellectual property and foreign non-complete rights.

- D. **More About Sequoia:** Before being acquired by Smartmatic, Sequoia Pacific System Corporation purchased the well-established voting machine business of AVM (Automat Voting Machine) and integrated it with a British currency paper printing and security company and an optical scanning tech company (Opticon) to form Sequoia Voting Systems. The company's well-publicized controversies include furnishing sub-standard paper to Florida which led to the "hanging chad" scandal in 2002 and de-certification by California. The software that SVS used was from Smartmatic. In 2007 California Secretary of State Debra Bowen de-certified SVS declaring "the equipment allows for insertion of a Trojan Program via a malicious USB removable storage media device that could modify ballot definitions and results." The ruling added that Sequoia voting machines could be made to shift votes from one candidate to another so that the shift was not detectable on the verifiable paper audit trail. In 2007 Andrew Appel, a Princeton Professor of Computer Science testified in a legal case in New Jersey regarding the Sequoia Advantage Voting Machine "very easy to replace the software inside a computerized machine so it tells the voter it is voting for one candidate

³ <https://maloney.house.gov/media-center/press-releases/smartmatic-announces-sale-sequoia-voting-systems>

but really puts the vote in the wrong column. You can even program it to do that only on election day.”⁴

E. **Smart-Matic: Murky Trails of Ownership and Influence.** In 2006 there were over 30 anonymous investors in Smartmatic Company. At one point the Venezuelan Vice President’s Daughter Gisela Avalos was head of the local corporate registry where Smartmatic was registered as a company in Venezuela. It was rumored that Luis Miquilena, a political mentor to Chavez, was a shareholder. In 2004 Bitza, the subsidiary which provided software was subsidized and/or partially owned by the Venezuelan Government. After acquiring Sequoia, Smartmatic has been restructured from a simple Delaware corporation with staff and headquarters in Boca Raton, Florida into an elaborate web of offshore companies and foreign trusts.⁵

In 2014 British Lord Mark Malloch-Brown (see reference #22, Links Soros to Brown) and Antonia Mugica (original Smartmatic engineer) announced the launching of the SGO Corporation Limited, a holding company headquartered in London. Its primary asset is election technology and voting machine manufacturing from Smartmatic. Mugica is CEO and Roger Pinate is also on the board. Mugica reported that most of the manufacturing is done in China with some component work done in Taiwan, although it is exceedingly difficult to learn where the voting systems are actually manufactured (is it a secret?).

In 2017 Smartmatic was embroiled in charges of vote fixing in Venezuela. The company accused the Election Commission of allowing over a million illegal votes to be counted and then ceased operations there⁶.

In October 2018 Smartmatic announced appointment of a U.S. Board of Directors to offer secure technology to election jurisdictions across the county. Peter Neffenger who had served as Assistant Secretary of Homeland Security and Administrator of TSA under Obama was named chairman to assist with this guidance. Neffenger was a member and a “distinguished fellow” of the Atlantic Council. This influential think tank has been widely criticized for receiving foreign funding, including \$100K/year from 2016-2018 from the Ukrainian Firm Burisma Holdings, which had paid Hunter Biden under possible illegal and controversial circumstances. Neffenger is the president and on the board of Smartmatic.

Smartmatic’s recently installed system for Los Angeles County CA (VSAP 2.0) has been criticized for non-compliance to California Voting System Standards due to major security

⁴ The Murky Foreign Actors Behind US Election Fraud, <https://journal-neo.org/2020/11/23/the-murky-foreign-actors-behind-us-election-fraud/>

⁵ <https://www.nytimes.com/2006/10/29/washington/29ballot.html>

⁶ <https://www.reuters.com/article/us-venezuela-politics-vote-smartmatic/venezuelan-election-turnout-figures-manipulated-by-one-million-votes-election-company-idUSKBN1A11KZ>

vulnerabilities with unrestricted access to election definition software and physical ballots as well as lack of data encryption.⁷

- F. **Enter Dominion Voting Systems:** John Poulos and James Hoover founded the Dominion Voting Systems in Toronto in 2002 with Poulos serving as CEO. Voting technology was a big business opportunity at the time after the infamous Florida “hanging chads” of the 2002 US presidential election. Dominion began manufacturing electronic voting hardware and optical scanners and continued to grow by acquisition. By 2010 Dominion served 400 jurisdictions with over 90,000 optical scanner/tabulators.

In May 2010 Dominion acquired the primary assets of Premier Election Solutions (formerly Diebold) from Election Systems and Software (ES&S). This included intellectual property, software, firmware and hardware for optical scanning, central scanning, touch screen voting systems, and GEMS election management system. The transaction was motivated by and DOJ anti-trust action against ES&S.

In June 2010, [Dominion](#) acquired physical and intellectual assets of Sequoia Voting Systems including retention of technical and sales staff.⁸ Sequoia had 300 contracts in the jurisdictions of the United States when Dominion purchased the company.

Hart Intercivic had previously attempted an unfriendly take-over of Sequoia, and discovery in a related lawsuit revealed that the Intellectual Property for most of Sequoia’s voting systems was secretly owned by the Hugo Chavez based firm, Smartmatic. So Smartmatic code may have migrated into Dominion equipment software.

In 2018, Dominion was sold to a private Equity Firm Staple Street Capitol. The co-founders of Staple Street Capital, Stephen D. Owens and Hootan Yaghoobzadeh, are veterans of The Carlyle Group are now on the Dominion Board. Staple Street has other ties to Carlyle through David Mark Rubenstein (a co-founder of the Carlyle Group) and William Kennard, Obama’s former EU Ambassador and former Managing Director of the Carlyle Group.⁹

Dominion has lobbied extensively in Georgia with eight registered lobbyists including Jared Thomas the (former chief of staff for Republican Governor Brian Kemp). Nationally, Dominion’s lobbying effort is led by Nadeam Elshami, former Chief of staff for Nancy Pelosi. Dominion has also donated money to the Clinton Foundation in the past.

⁷ <https://freespeechforpeople.org/election-security-experts-highlight-major-flaws-in-los-angeles-county-voting-system/>

⁸ https://bradblog.com/Docs/DominionAcquiresSequoiaDraftFinal2_060410.pdf

⁹ LOOK Who Owns Dominion Voting Systems: Politically Motivated PRIVATE Equity NY Hedge Fund, <https://gellerreport.com/2020/11/look-who-owns-dominion-voting-systems-politically-motivated-private-equity-ny-hedge-fund.html/>

Chinese Influence on Dominion may come through the Carlyle Group since they have close ties to both the Chinese Communist regime and to Dominion's management. Carlyle entered China in 1994, and they are one of the most active in the western investment firms in China. Carlyle is heavily invested in China – with major investments including: China Pacific Insurance Company (19.9% stake), Tongyi Lubricant (100%), McDonald's in China and Hong Cong (80% stake with CITIC), and Adicon, one of the largest medical testing companies in China.

Chinese Influence on Dominion may also come through investments by UBS. An investigation into SEC filings has revealed a \$400,000,000 purchase of Staple Street Capital stock by UBS Securities China just prior to our 2020 election.^{10 11} This follows a previous investment of \$200,000,000 in 2014. The owners of UBS Securities Co LTD are Beijing Guoxiang (33%), Guangdong Comm. Group [zh] (14%), China Guodian (14%), COFCO Group (14%), and UBS (25%). Aside from UBS, the other four are Communist Chinese front groups.

Another connection between Dominion Voting Systems and China has also emerged in recent weeks - the company's Core Infrastructure Manager of Information Technology, Andy Huang had previously worked for China Telecom, which is "wholly run by the Chinese government," as reported by the National Pulse.¹²

2. Mechanics of Voting

A. Direct Recording Electronic Systems. DRE systems became popular in the early 2000's following the "hanging chad" fiasco that convinced many jurisdictions that "paperless" systems were the best way to replace obsolete punched paper technology or hand-marked paper ballots. DRE's record in person votes directly into computer memory and do not produce an auditable printed record. They rely on the correct operation of complex software programs, and computer scientists have long been skeptical that this type of system can be made securely and reliably accurate (see section G above).

What's wrong with DRE voting?

- Breakdowns and critical shortages of those DRE machines have led to long Election Day lines.

¹⁰ https://cdn.summit.news/2020/12/2020-Staple-Street-Capital-lii-L.p.-2020-Stock-_-Securites-Offering-Form-D.pdf

¹¹ <https://stillnessinthestorm.com/2020/12/firm-that-owns-dominion-voting-systems-received-400-million-from-swiss-bank-with-connection-to-chinese-government-before-election/>

¹² <https://summit.news/2020/12/01/firm-that-owns-dominion-voting-systems-received-400-million-from-swiss-bank-with-connection-to-chinese-government-before-election/>

- Lights on the touchscreens have often gone haywire, falsely indicating voters had chosen one candidate when in fact they had chosen another. Critics have branded the process “push and pray.”
- Since they fail to create a usable paper trail, these machines turn recounts into a bitter charade.
- When the official results tabulated by the machines have not jibed with exit polls (as has happened often), those unhappy with the results have an easier time deeming the election “stolen.”
- Privately owned companies like Dominion and ES&S have been unwilling to make public their source codes. The courts have ruled in their favor, calling the codes that have decided our elections “proprietary.”

In conclusion, there is no reliable way to confirm the outcome of an election conducted on electronic touchscreens.

B. Paper Ballots. Paper ballots have long been at the core of the U.S.’s election protection movement. They were largely scorned after the disastrous 2000 campaign, when badly designed “butterfly ballots” and “hanging chads” undermined Florida’s election. In response, Congress voted for the two-billion-dollar Help America Vote Act (HAVA), which spread computerized touch screen machines (DRE) throughout the country. In 2006 less than half the nation’s votes (48%) were using hand-marked paper ballots. Fortunately, by 2020 it was 70% with another 18% using ballot-marking devices to mark paper ballots, so that almost 9 out of 10 votes cast were marked on paper thus allowing for recounts.

Problems with paper ballots

- Adjudication Issues. Improperly marked (e.g., candidate’s name circle instead of box filled in) ballots are handled separately using an adjudication process to determine how the person has voted. Although a bipartisan board should oversee this process, this may not always be the case. As you are reading this you can understand the problem with mail in ballots and unscrupulous people who are analyzing the ballot. For example, in Nevada Joe Gloria in Las Vegas had the poll watchers so far away that they could not see what was happening to the ballots. Mail-in ballots more likely to require adjudication because they are not filled out under poll worker supervision.
- Optical scanning for paper ballot tabulation - pros and cons
 - Pros: Low cost and fast. Optical scanning is useful to avoid large staffing costs and to provide election results in time for election night reporting.
 - Cons: Potential for fraud. Dominion Opti scan scanners (used in 28 states) will accept photocopies of mail-in ballots. This was discovered in Arizona’s intensive forensic investigation of the Dominion Voting System. Furthermore, mechanical

jamming can cause additional adjudication and in absence of proper supervision ballots can be counted multiple times.

3. States with Forensic Examinations of Dominion and Their Outcomes

A. Arizona: The audit of the Arizona election authorized by the Senate was begun in April and is currently on-going. Lawsuits by the Democrats delayed the start until an Arizona Judge required a \$1,000,000 bond to fund the costs of delay. Because the Democrats were not willing to put up the money the investigation began on April 23, 2021.

- Cyber Ninjas, a cybersecurity firm from Florida, has been hired to complete the audit. The judge is requiring full transparency so Cyber Ninja has produced policies, procedures and training materials.¹³ All activities are on camera from 9 different angles on the floor of the Maricopa Veterans Memorial Coliseum.
- A process patented by JH Pulitzer to identify fraudulent ballots which is based on identifying paper creases, inks, paper fibers, etc. is being used. The process uses hand-held ultraviolet light scanners from Pulitzer's company.
- Cyber Ninjas will lead the audit using sub-contractors Wake Technology Services (IT company that performed recounts in Pa and NM), CyFIR¹⁴ (digital security firm), and Digital Discovery (Defensible discovery and ESI consulting)¹⁵

- **Recent Developments**

- May 12, 2021 Senate President Fann sent a letter to Maricopa Board of Supervisors¹⁶ which raised 3 major issues:
 - Ongoing Non-Compliance with the Legislative Subpoenas
 - Chain of Custody and Ballot Organization Anomalies
 - Deleted Databases

B. New Hampshire: The New Hampshire Senate voted 24-0 to do a complete audit of 4 statehouse seats in the 2020 Election of Windham after discovery of significant and unexplainable discrepancies in the Nov 12th recount. The discrepancy was that each Republican candidate lost 300 votes which were gained by the Democratic candidate. The

¹³ <https://www.azmirror.com/2021/04/29/cyber-ninjas-releases-its-election-audit-policies-after-court-order/>

¹⁴ <https://www.CyFIR.com>

¹⁵ <https://digitaldiscoveryesi.com/>

¹⁶ https://chibleybugle.com/news/wp-content/uploads/5-12-21_Letter_to_Maricopa_County_Board.pdf

voting machines used were AccuVote OS Scanners from Premier Voting Systems. Premier (formerly Diebold) is owned by Dominion Voting Systems. The audit will be completed on May 27,2021.

C. Michigan: In December 2020 Allied Security Operations completed a forensic report on the performance of the Dominion Voting System in Antrim County MI.^{17 18} This report was used as the basis of a lawsuit filed by Matthew Deperno., Its main conclusion is “that the Dominion Voting System is intentionally and purposefully designed with inherent errors to create systemic fraud and influence election results.” One America News April 15, 2021 summarized supporting observations as follows:

1. 6,000 Votes were mysteriously flipped from Trump to Biden
2. The Machines were set at 68.05% error rate, meaning 68.05% of ballots had to be sent off- site for adjudication. Adjudication is a process that occurs when a paper mail-in ballot is jammed or there is another a problem and the ballot is set aside to be remedied in another location. This can also occur electronically after the ballot is fed into the Opti Scanner with reading the signature or some other issue. At this point the ballot is then placed in an electronic file and after a certain number of ballots are placed in this file the file will be sent through cyberspace to be adjudicated. At this point there is much room for fraud because the chain of custody is broken.
3. Michigan reported adjudicated ballots were bulked together and sent off-site electronically with no transparency or audit trail. This is where the fraud took place.
4. Allied Security determined the Dominion Voting System was programed with a systematic program designed to generate errors that affect the outcome. “It was either a major software company or a foreign entity that was behind this.” (NEWSWARS/INFOWARS.COM, Monday, December 14, 2020)
5. One America News further reported on wireless communication hardware in the Dominion system – a 4G chip manufactured by Telit was found in the Dominion Image Cast X machines as seen in figures below. IP addresses in Taiwan and Germany in figure below show that data could have been transmitted offshore.

¹⁷ [https://www.depernelaw.com/uploads/2/7/0/2/27029178/antrim_michigan_forensics_report_\[121320\]_v2_\[redacted\].pdf](https://www.depernelaw.com/uploads/2/7/0/2/27029178/antrim_michigan_forensics_report_[121320]_v2_[redacted].pdf)

¹⁸ <https://www.wmur.com/article/windham-vote-auditors-complete-machine-count-of-towns-vote/36434414>



6. China Fusion Capital CEO Yuyiang Ying has made major investments in Telit which may lead to Chinese control of its Information of Things (IoT) technology. Dominion Model ICX scanning machines are manufactured in Taiwan and shipped to the United States via Chinese Airlines.

D. Georgia: The surprising upset and narrow margin of Biden’s win warranted a close look at Georgia’s election process, and several serious charges were made.

1. In December 2020, VoterGA. Org (a diverse non-partisan coalition of Georgia voters, organized for Trusted Election Results) confirmed that the Dominion Democracy Suite 55 System used throughout Georgia flipped dozens of votes cast in one county for President Trump to Joe Biden during the 2020 election.
2. Ware County Elections director confirmed this happened through the hand count which shorted President Trump 37 votes and added the 37 to Joe Biden.
3. Election Director Chris Harvey directed all counties to certify all Dominion results and disregard any potential Dominion counting inaccuracies.
4. Brad Raffensperger ordered counties to reset their machines for the January 4th U.S Senate Race which destroyed potential evidence of tabulation malware.
5. Raffensperger forced Georgia counties to conduct a risk limiting audit (RLA) using a centralized ARLO^{19 20} system rather than their own data source. This broke the audit reporting chain, which allowed the SOS office to tell the counties their results rather than the counties reporting their results to the state. Voter GA polled all 159 counties

¹⁹ <https://www.voting.works/risk-limiting-audits>

²⁰ <https://www.ajc.com/news/investigations/naysayers-find-more-reasons-to-assail-georgias-hand-recount/2FLQLV25NRBBXPWRKZ3YSARPSU/>

and found approximately only 150 of them had no electronic totals for their own hand count audit.²¹

6. It is important to note that the ARLO software was created by VotingWorks, a non-profit voting software company whose founder is Ben Adida. Adida is an anti-Trumper who used vulgar profanity on social media regarding President Trump and his enablers²²
7. Eric Coomer, an executive with Dominion Voting Systems, which sold the state its new election system last year for more than \$100 million, said the problem has to do with the way the voting machines communicate with the underlying Android operating system. He told Totenberg a minor software change will address the issue.”
8. Coomer posted these comments on Facebook, “Trump is not going to win. I made f***ing sure of that!”²¹

4. Conclusion

To Understand the severity of the destruction of our election process we need to understand that 37 states use the Dominion Voting Systems. It only took 6 counties to place and unelected person in the White House. The 6 counties were: Maricopa County, Arizona, Clark County, Nevada, Antrim County, Michigan, Milwaukee County, Wisconsin, Fulton County, Georgia and Philadelphia, PA. I personally feel saddened that I live in a state where we had voter fraud and it is not being fully investigated. Voter registrar, Joe Gloria, openly admitted he committed an illegal act. He knowingly sent out 81,000 uncured ballots after the legal deadline. The Secretary of State of Nevada, Barbara Cegavske was given 122,918 unique cases of voter fraud. Barbara’s comments regarding the evidence of fraud cases gives Nevadans little hope of assisting the citizens of their state in renewing their confidence in their election process.

What do we do now? Thanks to President Trump we now know the scope of corruption in our country which is mind boggling. We need to demand Voter Integrity: Tell your county Voter Registrars that you want paper trails. Tell them you want the modems removed especially from Dominion Voting Systems; we do not want our voting equipment online. We want paper ballots. Tell them we do not want our votes electronically recorded. Demand that there are forensic audits done on the voting systems to determine if their equipment has Bluetooth/Wireless capabilities and to make sure there is not a hardwired dial-up built into the equipment. Yes, this will be expensive but this is the election of the United States of America. I personally believe that most Voter Registrars are not corrupt but I do believe most do not understand all of the

²¹ <https://www.thethinkingconservative.com/dominion-system-flips-trump-votes-to-biden-georgia-orders-counties-to-certify-dominion-results-anyway/>

²² <https://www.foxnews.com/politics/georgia-audit-nonprofit-executive-anti-trump-tweets>

capabilities of their Electronic Voting Equipment. I truly believe that the Dominion Sales Personnel did not fully explain the “Devil in the Details”.

Ronald Reagan once said “Freedom is never more than one generation from extinction.” I am sorry to say but we are it. We are on the front line of the battlefield trying to save the United States. Reagan also said, “The future doesn’t belong to the faint hearted, it belongs to the brave.” The Democratic Socialist, Marxist, and Communist have awoken the sleeping Giant of Patriotism, we will never be silenced again. If you are reading this article, I ask “Please do not give up, we need all of you. We need you to be brave and fight for the cause, Free and Fair Elections.” Please help and Stand Tall with all your Brother and Sister Patriots, demand Voter Integrity! God Bless you and God Bless America. •

- * Please note: Voting machines are only **one** of the tools used in thwarting the will of the people in the 2020 election. Mail-in ballots sent indiscriminately everywhere, voter rolls that are filled with inaccuracies (& dead people), and actual voter fraud where thousands of people registered in more than one state to vote all contributed to the fraud. These were all necessary to perpetrate the fraud that was the US election because of the massive turnout of millions of Trump voters and still, it was a razor thin margin.