

“Slow Down with Computerized Touchscreen Voting”

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by Anthony E. Fairfax

After the debacle in 2000, there was a temptation for our country to swiftly replace older voting machines with new computerized voting machines. Over the past two years the fervor seemed to slow down. However, the replacement movement may begin to accelerate now that Congress has appropriated almost \$4 billion for election reform.

Replacement of older voting machines is necessary, but, they should be substituted with a more efficient and trustworthy type of machine. Thus, as we embrace new computerized voting machines we must attempt to troubleshoot all of the potential snags so that voting will truly be an exercise in freedom.

The latest type of voting machines that are gaining in popularity are the “touchscreen” machines. These “ATM” type voting machines may offer a simpler and easier way of voting, but, they may not be more trustworthy.

It is important to note that touchscreen voting machines are trustworthy if they sufficiently answer one fundamental question. The

question is, “How do we know that the voting machines are correctly calculating the candidate’s votes properly?” In other words, when someone selects a candidate, how do we know that the voting machine internally tallies the vote to the proper person? Likewise, if a recount is necessary, will the voting machine rely on the same internal results?

As someone who has dabbled with programming, let me go on the record in saying, “Programmers do make mistakes.” Simply look back to 1994 when the largest manufacturer of desktop computer chips found a calculation error in one of their processing chips. This error, albeit rare, showed up in the calculation results for programs such as Excel or Quattro Pro. Although the problem was corrected, the point still remains that if the largest manufacturer of desktop computer chips can make a mistake, isn’t it possible that companies who are a thousand times smaller could also make a mistake in their programming?

Ultimately, the computer chip problem was discovered and corrected. Nevertheless, the difference with

touchscreen voting is that unless the problem is visible, no one will be able to identify it. A visible touchscreen problem may be discovered when someone attempts to vote for one candidate, but, the screen indicates a vote for another candidate. Another visible problem may be determined when the voting machine simply freezes up. These types of problems can be identified and therefore corrected. In fact, many of these types of visible problems have been chronicled during this past election cycle. All of these problems will most likely be corrected by the next election. The other and more insidious type of problem occurs when someone votes for a candidate and the screen correctly indicates the vote for that individual, but, internally the vote is credited to another candidate. Consequently, when the machine prints out or electronically transfers the totals, these totals are incorrect. This type of unseen problem cannot be easily detected and will most likely go unnoticed.

Add to the mix a fatal power surge. If this occurs it could possibly erase the internal machine’s memory of

all of the voters who have voted or worse, change them some how. Those lost votes will most likely be discarded.

Of course touchscreen machines, like most commercial products, are likely tested at the manufacturer for defects. However, the only “true” test would be on the day of voting. That is to say that if in-house testing entirely eliminates bugs as well as defective machines, then, there shouldn’t have been problems in the primary or general election of this year. That was not the case.

The solution to the problem is not to eliminate touchscreen voting all together. The solution is very simple. Design the voting machine to print out a small ballot that contains the candidates and issues that were voted for. The voter would continue to vote using the touchscreen method, but, the machine would print a paper record for review. Under normal circumstances the computed totals would be used, however, if the vote totals are in question (i.e., a recount), these paper ballots could be run through a voting machine or manually counted. The crux of the solution is that there should always be a method to verify how voters voted.

This fundamental deficiency with many touchscreen voting machines

exist whether the error is accidental or by some intentional means to manipulate the election. Regardless of the reason for the error, both could have devastating consequences to our election system. With national voter turnout decreasing consistently from decade to decade since the seventies, why add another potential layer of pessimism and distrust that will most likely continue this trend? Therefore, before we begin to replace older voting machines on a massive statewide basis, let us consider slowing down and making sure that we replace these machines with a more “trustworthy” device.