

Online Voting: Security Issues Remain A Major Hurdle

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NEW BRITAIN — Allowing citizens to cast ballots online would increase participation in elections and make democracy more accessible.

But don't expect to vote on your [iPhone](#) in Connecticut anytime soon; the technology just isn't there to ensure secure elections, said several experts who participated in a panel discussion at [Central Connecticut State University](#) Thursday night hosted by Secretary of the State Denise Merrill.

"The biggest concern I have about Internet voting is that we don't know how to do it securely," said Ron Rivest, an expert in cryptology and a professor at the [Massachusetts Institute of Technology](#). "It sounds wonderful but it's an oxymoron. ... We don't have Internet experts who know how to secure big pieces of the Internet from attack."

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Rivest called online voting a fantasy and said it's at least two decades from replacing the methods currently in use.

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Alex Halderman, a computer science professor at the [University of Michigan](#), is another skeptic. He led a team of students from the university who successfully penetrated a test-run of Internet voting in [Washington, D.C.](#), in 2010. "We began ... role playing — how would a hacker, a real malicious attacker, attempt to break in and compromise the vote and, within 48 hours of the start of the test, we had gained virtually complete control of the voting server and changed all of the votes," he said.

Not everyone on the panel was a critic. Natalie Tennant, West Virginia's secretary of state, said her state successfully piloted online voting for members of the military serving out of state in 2010. "We had no known breaches of security," she said.

Tennant noted that no voting system is foolproof. A voting official counting paper ballots or tabulating electronic voting machines can tamper with a system just as easily as a distant computer hacker, she said.

In the West Virginia experiment, 165 people voted online, Tennant said. She said she received a great deal of positive feedback from participating military members, many of whom were stationed in war zones in distant lands. For them, the simple act of voting was deeply meaningful, she said.

The forum also featured Alex Shvartsman, director of the [University of Connecticut](#)'s Center for Voting Technology Research, and Susan Dzieduszycka-Suinat, the president and co-founder of the Overseas Vote Foundation, a nonprofit group that helps members of the military and other Americans living overseas participate in federal elections. It was moderated by WNPR's John Dankosky.

During the 2010 legislative session, lawmakers passed a bill requiring Merrill's office to issue a report on online balloting. She organized a forum as a way to gather facts, spur the discussion and generate public involvement.

Connecticut would do well to proceed with caution, advised Halderman. "The important thing in the voting process, the most important thing, is transparency, allowing people to know that their votes are being recorded correctly and that the entire process is being done in a way that ensures the security and integrity of the vote," he said.

"So ... that means with today's technology, you're going to want to count votes on paper," Halderman continued. "We don't know a better way to do it today. As soon as we can get Internet votes to work, I'm going to be one of the first people who wants to see that happen, but that is truly decades away."

But even those who say online voting is a long way off said there was still more that can be done to harness technology. One town in Maryland is pioneering the use of a tracking system so voters can ensure their ballot was counted, for example.

"Technology is changing," Merrill said. "We are not exactly on the cutting edge in Connecticut. It was kind of a shock to me when I learned that many of the registrars in our state still don't have email. ... We have a long way to go ... but there are steps that we can and should be taking."