

New technology be trump card in US election row

**GUEST
COLUMNIST**
Andy Symons



Vote recounts were urged in three swing states – Michigan, Pennsylvania and Wisconsin – after suggestions that computer hackers could have influenced the results in favour of Donald Trump.

Results from the three traditionally Democrat-leaning, though ultimately Republican-won, states were scrutinised when news broke that Hillary Clinton received 7% fewer votes in areas that relied on electronic voting than in counties that used paper ballots.

The Wisconsin Election Board has approved an electoral recount on request of Green Party candidate Jill Stein. But she has withdrawn a similar request in Pennsylvania on grounds of costs after the court demanded a \$US1 million bond. However, recounts will go ahead in some precincts.

Ms Stein is also pushing for a recount in Michigan but this also faces legal challenges.

Such moves are unprecedented, controversial and question how fit for purpose the democratic process is. What's more, improvements in technology means it might be a problem we never see again.

Blockchain is a technology that few have heard of.

In truth, there are only a select number of financial institutions that are experimenting with it – and they're taking great strides.

However, the case and uses for a secure, distributed database is growing as people reimagine all kinds of scenarios, and the turmoil around the 2016 US presidential race could be a great example of blockchain's world-changing potential.

New kid on the block

The first blockchain was created by the anonymous Bitcoin architect (or architects) as a solution to prevent digital counterfeiting.

In essence, it's one big record of every transaction among certain people and parties. The document is digital and can never be altered, which makes things clear, simple and (through encryption) secure.

In terms of voting, there's huge potential. Through blockchain technology, it's possible to create a secure and simple-to-use way to electronically vote.

Votes cannot be counterfeited or made out of thin air and the results would be completely transparent – while you won't

know how your neighbour voted, anyone in the world can audit the voting records and see how many votes each candidate received for the rest of time.

In terms of convenience, imagine grabbing your smartphone on election day, signing in to a voting app and choosing the name of your favoured candidate. That's essentially what blockchain can deliver and it could solve a lot of problems in

It probably wouldn't get to that point. An encrypted blockchain is incredibly secure.

Perhaps the most powerful aspect of the system is the way it's protected through a huge community of computers. This provides incredible amounts of computing power that hackers who wanted to modify the blockchain would have to match. That type of power doesn't exist today.

These are very real reasons

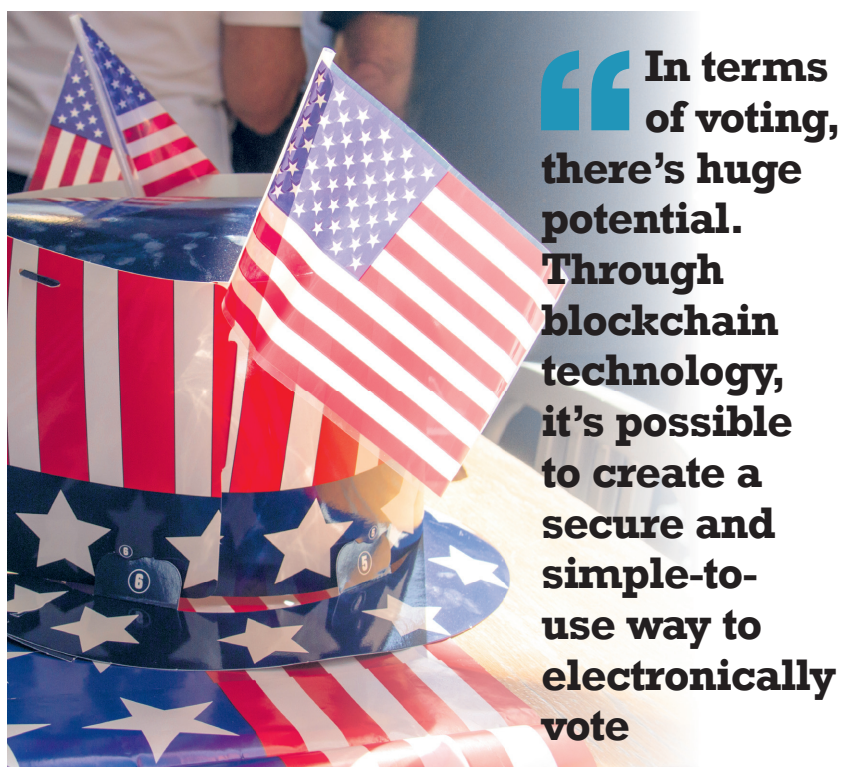


Photo: Tinaz Karbhari

the US and New Zealand alike.

The ease of use encourages voter participation. In the 2008 US election, the most common reason that people didn't vote was because they were too busy, Census data shows, meaning 2.6 million citizens didn't have their say.

New Zealand is no different. The past two Auckland Council elections have struggled to get even 40% of the electorate to vote.

A second benefit comes in the form of eliminating spoiled, illegible or blank ballot papers, because digitally there are set options to choose from.

In the recent Wellington Council elections, there were 452 blank votes, and 3852 in Auckland – enough to change the results in some cases.

Securing the vote

Third – and most crucially considering the vote recount scenario – administrators of the blockchain have an indelible record of votes, meaning it could take a matter of minutes to see if any fraud had taken place.

why banks, insurers, payment companies and other financial businesses are looking into blockchain technology today, and perhaps it's time for others to consider it too.

In today's digitally enhanced world, there's rarely a reason to settle for second best. The advantages of blockchain are becoming more apparent and starting to cause positive disruption in the financial services sector.

This will eventually spread to practically all businesses, large and small – enough for it to be considered one of the essential eight emerging technologies in PwC's recent Tech Breakthrough Megatrend report.

The idea that hackers could sway who becomes the president of the most powerful country in the world represents an unprecedented moment in global history.

Considering the power we now have to stop this kind of awkward affair from happening, it could be time for businesses and the government alike to take blockchain technology seriously.

Andy Symons is the financial services sector leader and a partner at PwC