

A red Wellington Cable Car is shown on its tracks, moving down a hillside. The car has "WELLINGTON CABLE CAR" written on its side. The background shows a panoramic view of Wellington, New Zealand, including the city buildings, a large green field, and the harbor with mountains in the distance.

Online voting, Digitising Democracy, Electoral Interference and the threat to Democracy.

Slides from the NZRise briefing session at Parliament
4 March 2020

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Online voting

Presented by Laurence Millar
NZ Rise Board Member, MD of GVG Limited

The number one problem with online voting is risk – specifically the risk that voting data is manipulated. The level of any risk is determined by the impact and the probability of the risk occurring.

For elections, the impact of a stolen election is huge; put another way, the benefit from stealing an election is massive, securing power and money for three years. This level of reward will attract hacking from multiple sources with limited ability to recover from a successful attack.

The chimera of manipulated votes is in itself sufficient to undermine confidence in the result of the election.

Myths of online voting

Myth #1: We can bank online — why not vote?

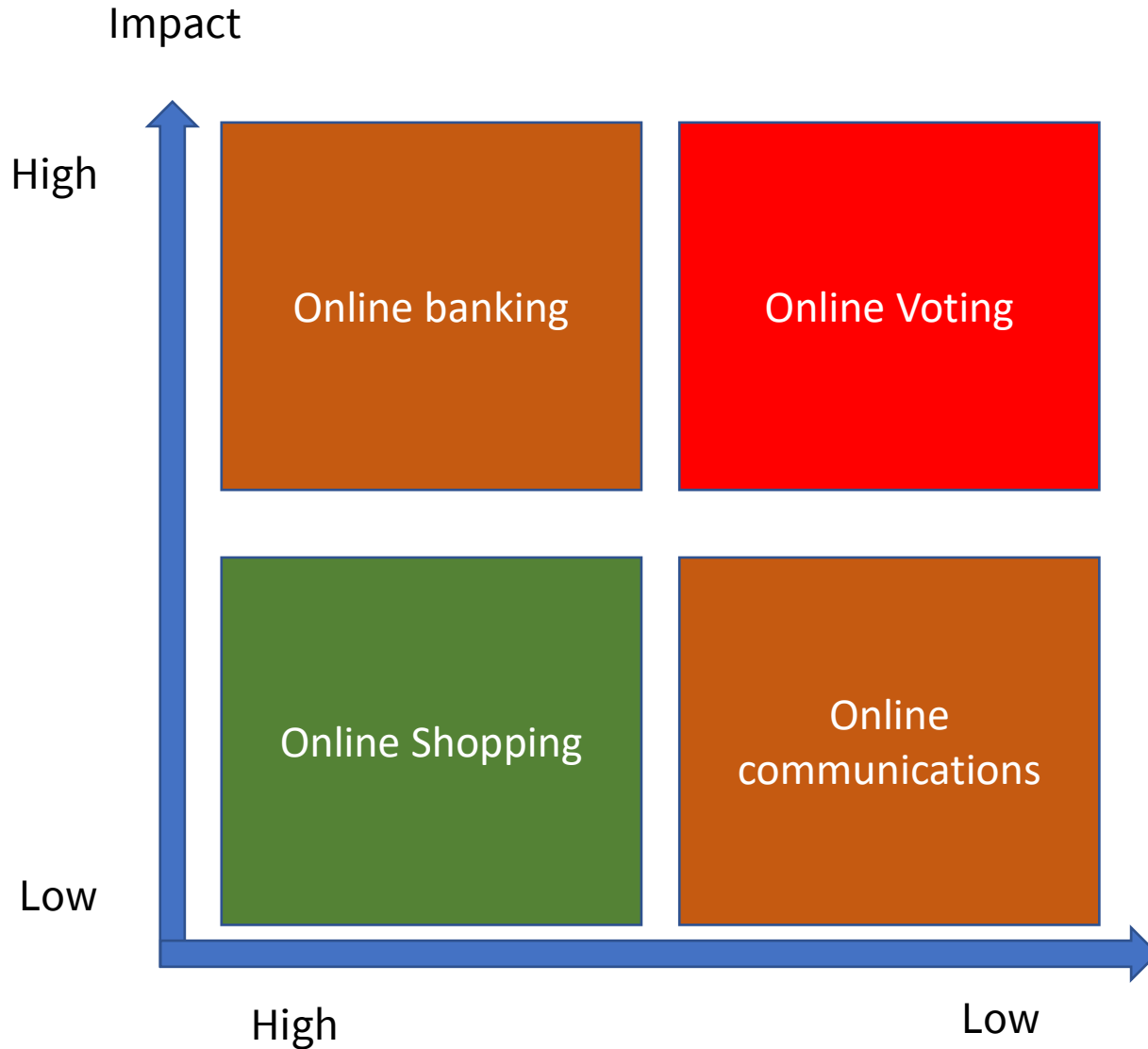
Myth #2: Online voting will result in cost savings

Myth #3: Online voting will increase turnout

Myth #4: All voting systems have risks

- Myth #1: We can bank online — why not vote?
- Myth #2: Online voting will result in cost savings
- Myth #3: Online voting will increase turnout
- Myth #4: All voting systems have risks

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- Did something go wrong?
- What went wrong?
- Who is responsible for fixing it?

Ability to remedy

- Myth #1: We can bank online — why not vote?
- **Myth #2: Online voting will result in cost savings**
- Myth #3: Online voting will increase turnout
- Myth #4: All voting systems have risks

AP

Reliability of pricey new voting machines questioned

By FRANK BAJAK yesterday



The most pricey solution available, they are **at least twice as expensive** as the hand-marked paper ballot option. They have been vigorously promoted by the three voting equipment vendors that control 88 percent of the U.S. market.

Most leading election security experts recommend hand-marked paper ballots as a primary voting system, with an exception for voters with disabilities.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3375755

<https://www.nybooks.com/daily/2019/12/17/how-new-voting-machines-could-hack-our-democracy>

<https://apnews.com/ec2374b3f4aa6d8e628b75724cb4caeb>

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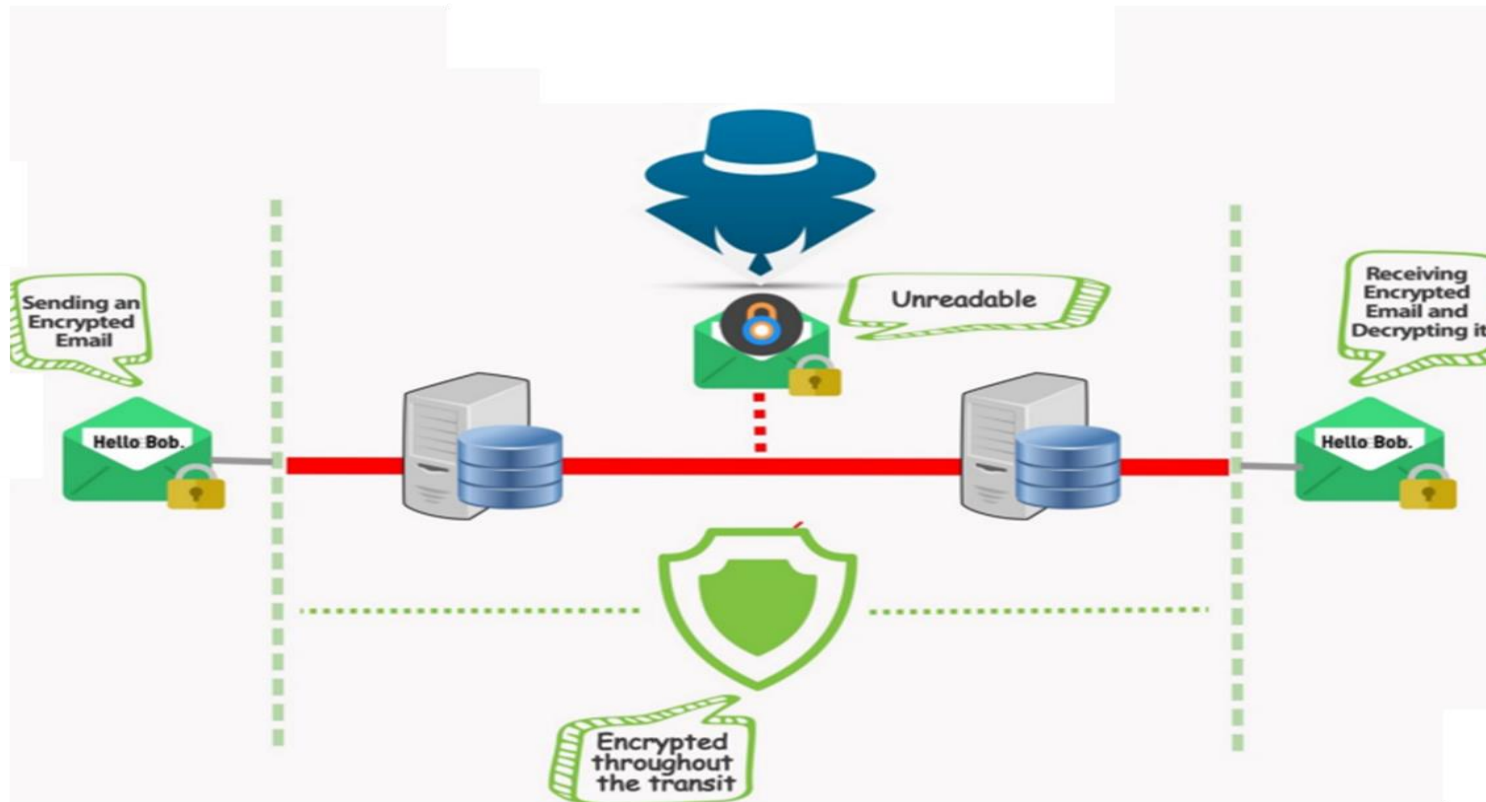
Why don't people vote?

- Young people don't think they know enough to be able to vote. It also found that the majority of the youth don't believe voting can effectively change society.
- Voting is a way of showing loyalty to your social group and its values. If a person's social group doesn't really care about politics, then the members of the group are less likely to vote.
- People who did not vote because they thought that their beliefs were not represented by the parties in the election.
- To the surprise of many, making the act of voting easier hasn't actually led to higher voter turnout. To increase turnout, we need to get more people interested
- There was no consensus, even among tech-savvy voters, that online voting would increase turnout.
- **Research suggests that Internet voting does not generally cause non-voters to vote. Instead, Internet voting is mostly used as a tool of convenience for individuals who have already decided to vote**

<https://callhub.io/how-to-increase-voter-turnout-the-strategy-guide/>
https://ssir.org/articles/entry/making_voting_easier_doesnt_increase_turnout#
<https://genprogress.org/could-online-voting-increase-turnout/>
<https://papervotecanada2.wordpress.com/2016/12/12/online-voting-doesnt-increase-turnout/>

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Security - encryption in a nutshell

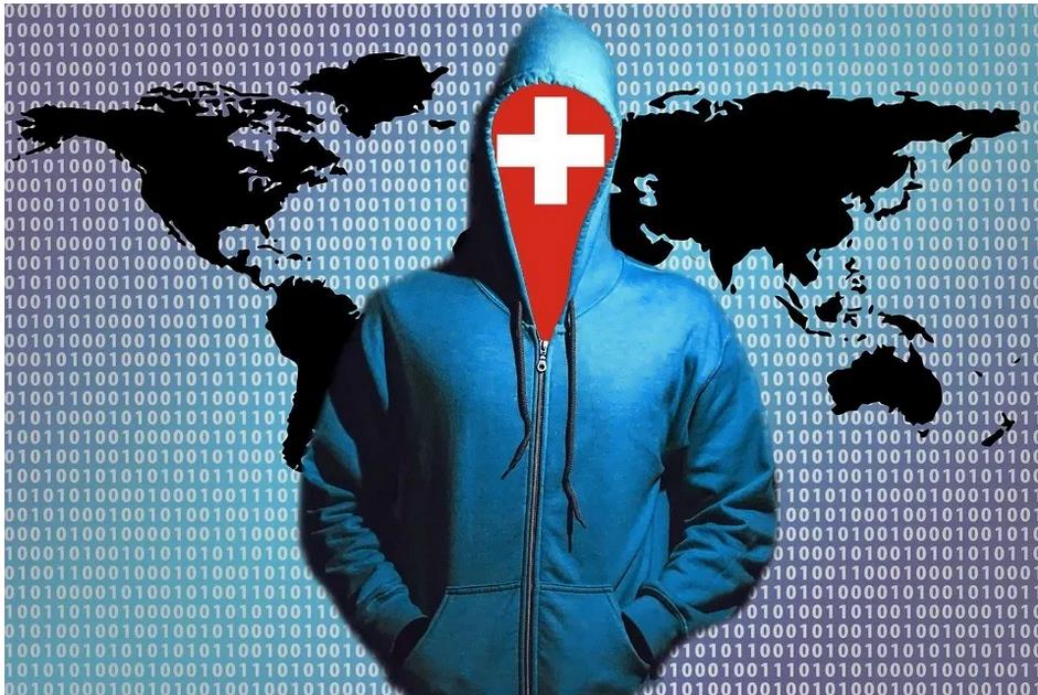


- Maths, prime numbers, and Euler's theorem
- **Scrutiny and verification by world's security experts**
- Constant search for better security – Elliptic curve and quantum cryptography
- Open scrutiny and transparency are the only way to ensure robust security
- Attackers always focus on the weakest link

You don't keep it secure by keeping it secret

- Myth #1: We can bank online — why not vote?
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- **Myth #4: All voting systems have risks**

A critical flaw in Switzerland's e-voting system is a microcosm of everything wrong with e-voting, security practice, and auditing firms



E-voting is a terrible idea and the general consensus among security experts who don't work for e-voting vendors is that it shouldn't be attempted, but **if you put out an RFP for magic beans, someone will always show up to sell you magic beans**, whether or not magic beans exist.

Swiss Post contracted with Barcelona firm ScytI to build the system, and announced a bug-bounty program that would allow **people who promised to only disclose defects on Swiss Post's terms** to look at some of the source code.

“We have only examined a tiny fraction of this code base and found a critical, election-stealing issue.”



Isla Stewart

@IslaStewart

This just in: local election voting software is NOT open for public audit.



“The STV calculator was developed in 2002 and the software development was outsourced to a private company.

To the best of our knowledge, the Department does not hold the uncompiled source code.”

Its all about Trust

- Trust in voting systems
- Trust in politics
- Trust in democracy

Online voting is a solution looking for a problem.

- All the evidence suggests that electronic voting systems **will be successfully hacked.**

There is a lot that technology can do to increase Trust

- Online voter registration
- Candidate and party comparison
- Managing workflow in the election process
- Recording votes
- Presenting the results for mass consumption in realtime



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Digitally enabled democracy

Presented by Breccan McLeod-Lundy
Co-Chair NZ Rise, CEO Ackama

🏠 Your local elections



Click left and right to see your elections



Mayor of Wellington



Look at Solutions in Light of Current Problems

- Studies in the US show reducing the cognitive load of voting (deciding who to vote for) is more important than making it easier to vote in terms of increasing voter engagement
- Political discourse is becoming more polarised (digital technology is at partly to blame for this)

Improving Engagement without Online Voting

- Better Access to Information (Candidate stances, policies, voting histories, etc)
- Allow voters to work out who they'd vote for and build a shortlist (The act of voting isn't the hard part)
- Enable sharing of information and discussion (More neutral platforms to support political discussion)
- Support good tools (the election cycle is too long for private organisations to maintain tools between elections)



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Disinformation and the threat to democracy

Presented by Rahul Watson Govindan
NZ Rise Board Member

I will talk about three things today

- The threat of disinformation
- What's coming at us
- What we need to do right now

**The threat is not a tech threat.
It's a national security, economic prosperity, and
wellbeing threat**

Fake News

AP The Associated Press 
@AP 

Breaking: Two Explosions in the White House and Barack Obama is injured

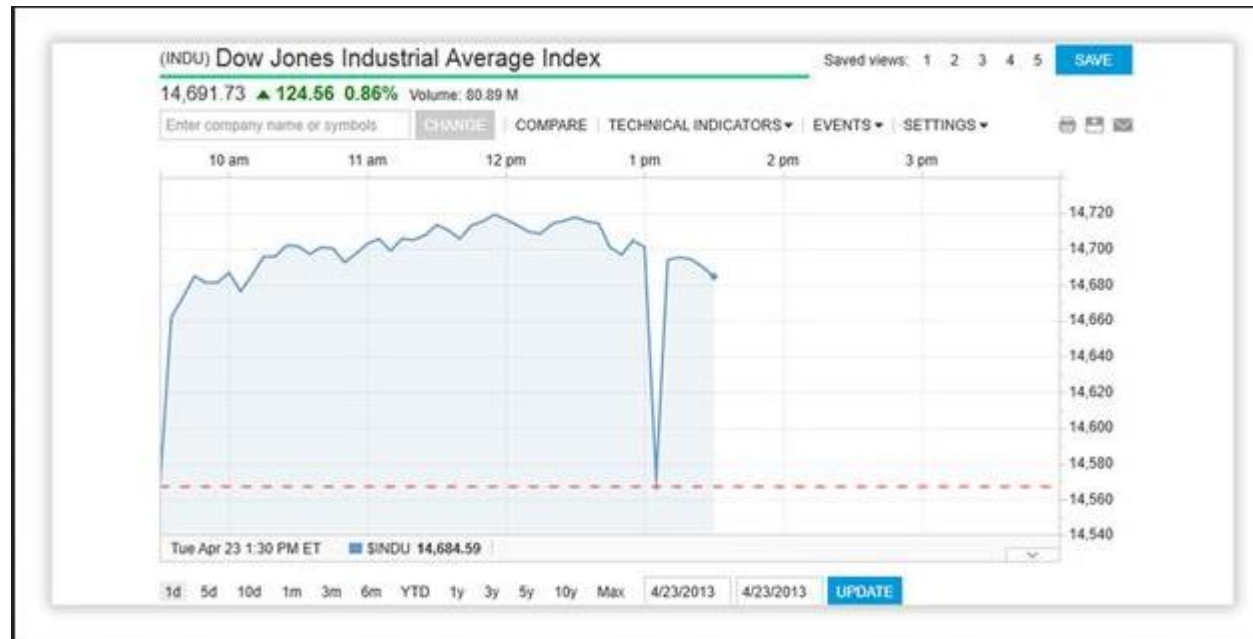
 Reply  Retweet  Favorite  More

483 RETWEETS 17 FAVORITES



10:07 AM - 23 Apr 13

US\$136 Billion in 3 Minutes



“The slogan of the WP is ‘Democracy dies in darkness’....democracy can also die in a bright glare, in the deluge of people shouting over each other so that nobody is listening and no one is able to discern truth.”

It's not bots & it's not Twitter

Recent studies have shown that disinformation is purveyed by people who don't have access to good sources of information

Bots are equally likely to ReTweet truth as much as lies.

Real humans on the other hand are not so neutral

Two emotional referenda and one general election: NZ is a Petri dish in 2020

There is a Tsunami coming at us.

Everyone is using NZ as a testing bed for digital campaigns

It's not naïve to assume some of this will be 'disinformation'
campaigns

None of our current apparatus are ready nor fit for purpose

We have a 'bundle' of protectors in our democracy:

- Electoral Commission
- NetSafe
- Advertising Standards Authority
- Serious Fraud Office
- Ministry of Justice

All deal with ***AFTER THE FACT***: None are preventative protection

What can we do? The EC has started, we can too.

The European Commission started work on this four years ago.
They have established two things:

1. An Action Plan on Disinformation
2. The Code of Practice on Disinformation

From what they've done here's SIX things we might do

- improve detection, analysis and exposure of disinformation
- stronger cooperation and joint responses to threats
- enhancing collaboration with online platforms and industry to tackle disinformation
- raising awareness and improve societal resilience
- Empower consumers to report disinformation and access different news sources, while improving the visibility and findability of authoritative content;
- Empower the research community to monitor online disinformation through privacy-compliant access to the platforms' data

NZ tech companies have the record and capability to act

We have companies who have helped build our infrastructure who are fully capable to work with government and with each other to tackle to important issue of our time

What should you do right now?

- 1) Form a cross-agency and cross-industry group specifically setup to address this issue **NOW**
- 2) Act immediately on their advice
- 3) Default to 'NZ Inc' when it comes to who is engaged: it's a national security matter – not commercial.
- 4) Do a stocktake of NZ capability and NZ industry will
- 5) Take action

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