

Points to Consider regarding Online Voting

Nobuyuki Asai



Operational design for online voting



How current elections are run

✓ Creating electoral rolls using the "Basic Resident Registration System"

- ✓ Election commissions in each constituency have to adjust number of electoral
- ✓ Issuing admission tickets for polling station
- ✓ Handling overseas votes
- ✓ Operating polling station for early voting
- ✓ Operating polling station for voting period
- \checkmark Counting the votes
- Everything that has to be done afterwards

*In addition to the above, also the process below (Not directly connected to this WG)

 \checkmark Support for campaigning by candidates

After the changes

✓ Creating electoral rolls using the "Basic Resident Registration System"

 \rightarrow Online systems can be linked to the "Basic Resident Registration System"

✓ Election commissions in each constituency have to adjust number of electoral

 \rightarrow Online system serves convenience during sharing data among regions.

- \checkmark Issuing admission tickets for polling station
 - \rightarrow Tickets/notifications given via email, app, etc.
- \checkmark Overseas, early voting, and voting on election day
 - \rightarrow Online voting is possible during voting period
 - \rightarrow Operating optimally sized polling stations
 - *Enable people to vote online at polling station
- Counting the votes

 \rightarrow Automatic counting + care for some votes casted outside the system

- ✓ Everything that has to be done afterwards
 - \rightarrow Removing polling station *Less number than before

Operational design with contingency plans

What are contingency plans?

Contingency plan A contingency plan is a plan devised for an outcome other than in the usual (expected) plan. It is often used for risk management for an exceptional risk that, though unlikely, would have catastrophic consequences.

From Wikipedia

With online voting, it is assumed that the system is accessible and includes redundant measures, and refers to any plans and operational designs for the purpose of allowing the election to continue even if an unexpected issue occurs with the network or cloud.

Contingency plan under the current system

✓ Print out paper lists of voters' names and place them at each polling station beforehand

✓ In case devices at polling stations failure, send extra machines, and more in case those also break

✓ If the devices failure, use the electoral rolls that have been printed out

Contingency plan with online voting

- In case Online voting system doesn't work, copy the system onto the intranet (or shift to the minimum operation)
 Back up the electoral rolls, and copy them onto the intranet
- ✓ Set up voting stations people can use instead of their own devices
- ✓ Set a long voting period that combine early voting and voting in the voting period
- ✓ Allow online voting, or online (or intranet) voting at polling stations during the voting period



Expectations for online voting



hurdles to implement and expected cost reduction

Hurdles to implementing online voting

- Everything covered under the current system must be covered at least the same level
 - \rightarrow Without eliminating it entirely, reduce the amount of voting at polling stations and run parallelly
- · Costs (expenses, time, labor) can be reduced since the processes will be done in the efficient way
 - $\rightarrow~$ Setting up voting stations, counting votes, etc.
- $\boldsymbol{\cdot}$ Things we can't do now can be improved
 - \rightarrow $\,$ Voters can vote no matter where you are
 - \rightarrow Human error reduced (enable to avoid going to court over mistakes)

[Provided local governments/election administration councils can operate smoothly with no legal issues]

Point to consider for each municipalities

✓ There are different type of issues between urban areas and rural areas.

Urban areas

- Many polling stations, and dense of electors
- \cdot A lot of election officials required

Rural areas

- \cdot If polling stations locate far apart, transport to there is difficult in some cases
- Difficult to hire election staff, and most of the candidates are elderly

There are a wide range of points to consider regarding how to operate the election administration councils, and how strictly to follow the law.