Election Observation of New Voting Technologies

Organization for Security and Co-operation in Europe

Office for Democratic Institutions and Human Rights
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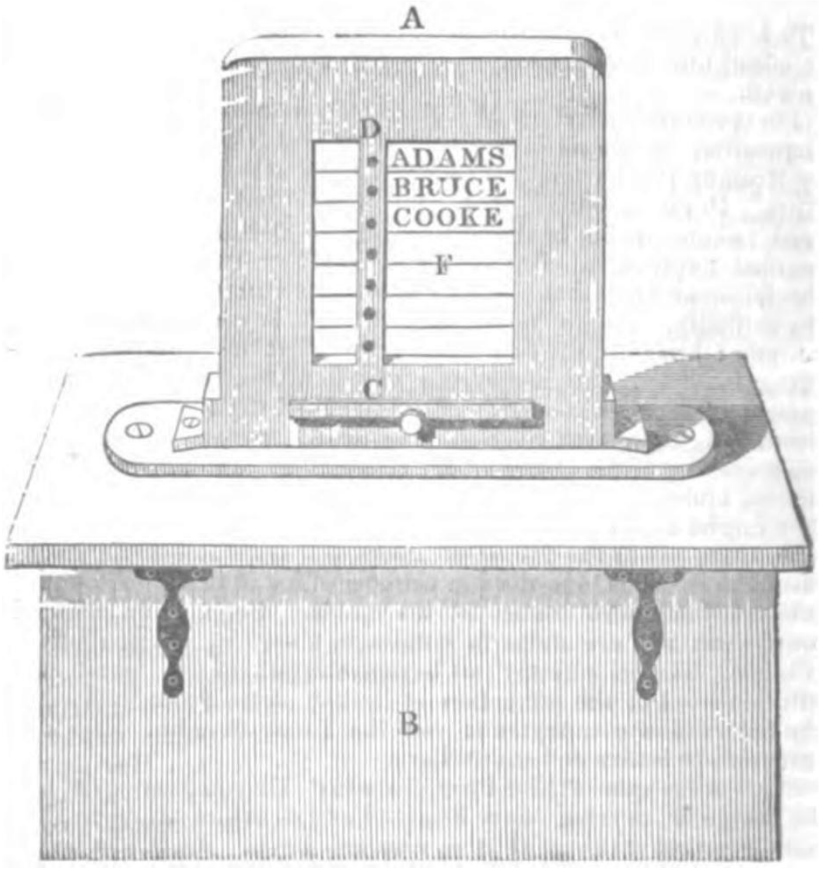
1836: One of the First Voting Machines …



Grote (1836): Bill to Enable Votes to be Taken by Ballot at the Election of Members to Serve in Parliament.

1925: An Early Assessment …

„Presumably the voting machine **does require an act of faith on the part of the voter** in a mechanical contrivance whose **workings he cannot see**.

No more so, however, than is required in the case of the automobile in which he drives up to the polls.“

T. David Zuckerman (1925)

Some arguments

- NVT can help offer **additional functionalities** to elections, i.e. **counting complicated and large volume elections, supporting handicapped or enfranchise very remote voters** to participate in elections.
- On the other hand NVT can **endanger the secrecy of the vote**, the **integrity of elections** as a whole, as well as raise **doubts about the transparency and accountability** of the conduct of the elections.
- With NVT **it is challenging to reach the same level of universal acceptance, trust and confidence** to understand as with paper voting. It can **not help to build trust**, **but requires trust** for proper implementation.

Why Observe Elections?

- To assess compliance with the international standards, OSCE commitments (not to certify or validate results)
- Create confidence for contestants and voters to participate in election process
- To enhance the integrity of the process
- To deter possible fraud and intimidation
- Process oriented – only interested in results to the degree that they are reported honestly and accurately
- To recommend ways in which the electoral process can be improved

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Mandate of OSCE/ODIHR

- Copenhagen Document 1990 – Establishes basic criteria for genuine democratic elections
- Paragraph 8 states:

  "The OSCE participating States consider that the presence of observers, both foreign and domestic, can enhance the electoral process for States in which elections are taking place."

Forms of Electronic Voting

Medium \ Place	Controlled (Polling Station)	Uncontrolled (At Home)
Paper	Ballot Sheet	Postal Voting
Electronics	DRE Electronic Voting Machines	Internet Voting

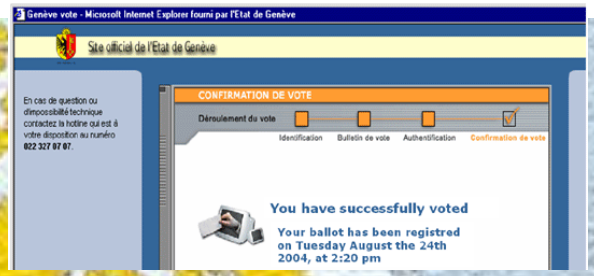
Optical Scanner

Kiosk Voting

Seven Key Principles for Observation and Assessment of NVT

- Secrecy of the Vote
- Integrity of Results
- Equality of the Vote
- Enfranchisement
- Transparency
- Accountability
- Public Confidence

Election Activities with NVT 2011/12



Estonia EAM **Norway EET** **Russia EOM's** **Switzerland EAM**

Overall Experience

- Time Schedule quite challenging – NVT starts earlier and finishes later than normal time frames
- Deployed one or more NVT analysts to join the Core Team
- NVT analysts come from academia, EMBs
- Integrated approach to analyse NVT and to compare it to the existing (paper observation) experience
- More recommendations: some 53

Legislation

- Further detail the procedures in the law – set-up, start, stop, counting, data destruction - needs to cover all the steps of the whole electoral process
- Important – show to the voter how his/her data is processed, and destroyed after not needed anymore - needs to give guidance to voters, candidates and administration how the system is operated and how it processes data
- Formalize clear regulations for invalid ballots

Oversight & Management

- Formalize a body to oversee internet voting
- Technical capacity for election management body
- Formalized separation of duties
- Develop a disaster recovery plan

Secrecy and Integrity

- Use of paper based voter credentials or smart cards
- Quality of printing process, including the potential misuse of data, is of concern
- (Formalized) Separation of Duty
- Management of Secret Keys
- Review and Improvement of Encryption Model
- For NVT Systems Involving paper to Record the Votes Random Hand-recount of Meaningful Number of Polling Stations Ballot Boxes

Voting Process

- Develop time plan / election calendar
- Determine deadlines
- Co-operate and co-laborate with important stakeholders to protect the process against dDoS attacks
- Consider to offer end-to-end verifiability to voters & public
- Offer voter interface in multiple languages

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Testing, Evaluation, Certification and Auditing

- Conduct end-to-end tests in real world environments to identify problems especially with interfaces
- Use final software
- Compile command-level document including publish it, as basis for audits
- Elaborate detailed specifications for evaluation and with it certification of NVT
- Delegate audit, evaluation and certification to independent competent national bodies
- Publish audit, evaluation and certification reports

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Training

- IT literacy needed by

  - Election Management Bodies to operate
    => internal training
  - Voters to use the system to cast votes
    => Voter education programs
  - Observers, Political Parties, Interested Public

Summary

- While they are **new** they still have to **fulfill** the **existing commitments** and standards

- NVT Observation takes considerable longer

- NVT Observation Methodology has emerged and will soon be formalized ➔ Handbook of NVT Election Observation

Contact

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