

Bob Dylan Was Right: The Times They Are a-Changin'

Committee on the Future of Voting
The National Academies of Science, Engineering and Medicine

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Times are changing

New technology

15 years since HAVA

Blossoming of research and best practices

Slow pace, yes

Complex environment, yes

Change is real, yes

Agenda

About Hart

Modernization

Certification

Challenges

Recommendations

Hart InterCivic

Austin, Texas

Since 1912

Voting technology in 18 states



Hart Voting System (first generation)

Verity (all-new, second generation, 2015)

Traditional paper ballots

By-Mail/high-speed scanning

Direct Record Electronic (DRE)

Multiple federal EAC certifications, certified in 12 states



Now

Jurisdictions are refreshing their technology

Increased professionalization and diversity of practices

Increased focus on voter services

Innovations: voting methods; human factors; auditability

AND/BUT

Lack of funding

Technological change = increased complexity



Modernization

New technology is available

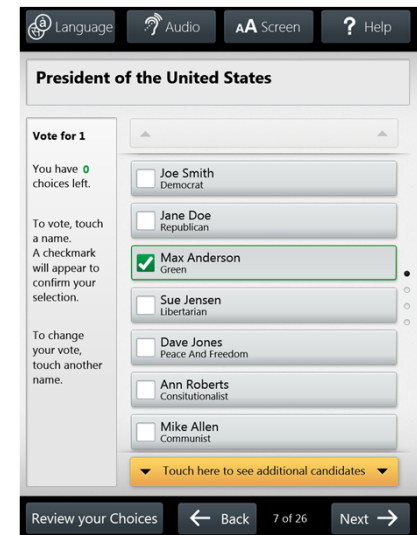
A decade of research – security; human factors; auditability; technology; accessibility; election administration

Human-centered design

Is the voting system easy to use?

Will the voting system last a long time?

How do I know if it's working correctly?



Usability

Common software interfaces across the platform

Plain language philosophy

Universal-design accessible devices that provide maximum choices

Versatility

“All politics is local”

Different laws, rules, political cultures; not one market, but 50

One system, any kind of election – with flexibility for the future

Integrity

Equal parts security & transparency

Digital signatures; whitelisting

Auditability: trace human-readable CVRs to individual paper records or images; plain language audit logs



Verity Scan
Digital Ballot Scanning



Verity Touch Writer
Accessible Ballot Marking



Verity Print
On-demand Ballot Printing



Verity Touch
All-electronic (DRE) voting



Verity Controller
Centralized DRE Management



Certification

Complex environment: federal VVSG standards, EAC program, VSTLs, state-specific laws and administrative rules

Managing trade-offs and unintended consequences:

Does it help to increase quality?

Does it help or hinder the healthy flow of technology to improve access and satisfaction with voting?

Does it reduce or increase the costs – fiscal and human – of running elections?

Challenges

Usability, versatility, transparency >> increased complexity

Increased complexity >> more demands on election administrators

Election administrators >> must also become technology experts

More technology >> pressure on costs and ease of use

Policy makers and technologists:

- Everyone wants usable, versatile, trusted voting systems

- Voting system buyers also demand affordability, operating efficiency

- It's both-and

- All of the above



Recommendations

Policy

Keep doing what you're doing

Advancing change is fundamentally a challenge of priorities, not technology

Certification

Certify what's necessary – no more, no less

Leave design to the technologists; don't over-prescribe

Acknowledge the diversity of election practices

Remember that buyers care about cost, choice, flexibility, and agility, too

Collaboration

Keep an open mind, and learn about all of the trade-offs

Let it sink in that it's more complicated than you may think

Stay optimistic. Lots of good people care, and the times are a-changin'!



thank you

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