

Differing systems put U.S. election votes at risk

With over 130 million voters, up to one-third of them absentee or early ballots, the U.S. election is dependent on electronic systems which vary from state to state, and are built by private suppliers with partisan affiliations using proprietary software. Critics claim this has privatised democracy and introduced multiple opportunities for fraud or disenfranchisement of sections of the electorate

VOTER REGISTRATION: All voters must be registered – political parties can submit registrations

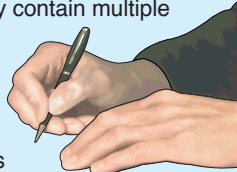
Potential problems: *Insecure online registration, errors in bulk registrations, late demand for ID requirements*

OPTICAL SCAN

President and Vice President
(Vote for one pair)

- ☒ Barack Obama
Joseph Biden (DEM)
- ☐ Mitt Romney
Paul Ryan (REP)
- ☐ Gary Johnson
James Gray (LIB)

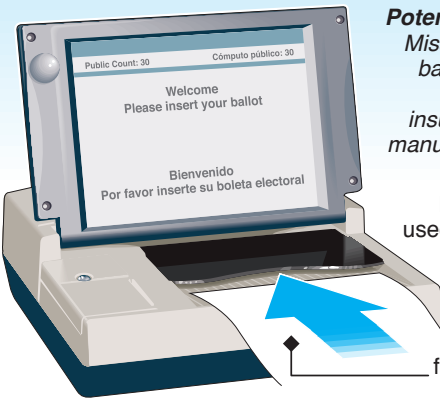
Vote filled in on paper form – each may contain multiple ballots. All states use optical scanning machines for paper ballots



Potential problems:
Missed and unread ballots e.g. due to paper skewing, insufficient time for manual post-election audits

ES&S DS200 – used in 30 different districts by up to 10 million voters

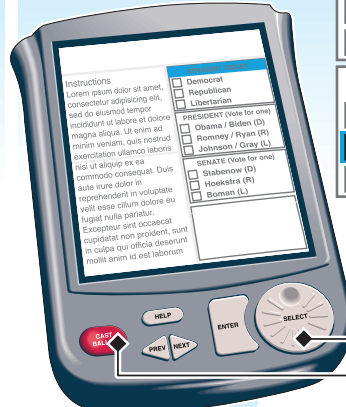
Ballot paper fed into scanner



DIRECT-RECORDING ELECTRONIC

Using touch-screen, scroll-wheel or dial to select options

Potential problems: *Users confused by interface e.g. mixed ticket selections, incorrect set-up e.g. default selections, miscalibrated touch-screens*



STRAIGHT TICKET

- ☐ Democrat
- ☐ Republican
- ☐ Libertarian

PRESIDENT (Vote for one)

- ☒ Obama / Biden (D)
- ☐ Romney / Ryan (R)
- ☐ Johnson / Gray (L)

SENATE (Vote for one)

- ☐ Stabenow (D)
- ☒ Hoekstra (R)
- ☐ Boman (L)

Hart InterCivic e-Slate – could be used by up to 17 million voters

Scroll wheel selection
“Cast ballot” button

Hacking: Servers used to tabulate votes are as vulnerable as any other computer

Proprietary software: Not open to public scrutiny, so no way to check accuracy

STATE-BY-STATE SYSTEMS

Voter should be able to verify that vote was cast in intended manner with Voter Verified Paper Audit Trail (VVPAT)

With VVPAT

- Paper ballot
- Paper and DRE
- DRE only

Without VVPAT

- Paper and DRE, some with paper trail
- Paper and DRE
- DRE only

