Takoma Park election using scantegrity

Richard Carback   David Chaum   Jeremy Clark   John Conway

Aleksander Essex   Paul S. Herrnson   Travis Mayberry   Stefan Popoveniuc

Ronald L. Rivest   Emily Shen   Alan T. Sherman   Poorvi L. Vora

On November 3, 2009
an historic election was held
In Takoma Park, Maryland

This was the first public-sector election to have both *secret ballots* and a *publicly verifiable election outcome*

It used *Scantegrity* –
a cryptographic end-to-end
verifiable voting system

Voters "fill in the bubble"
next to their choice
on paper ballots
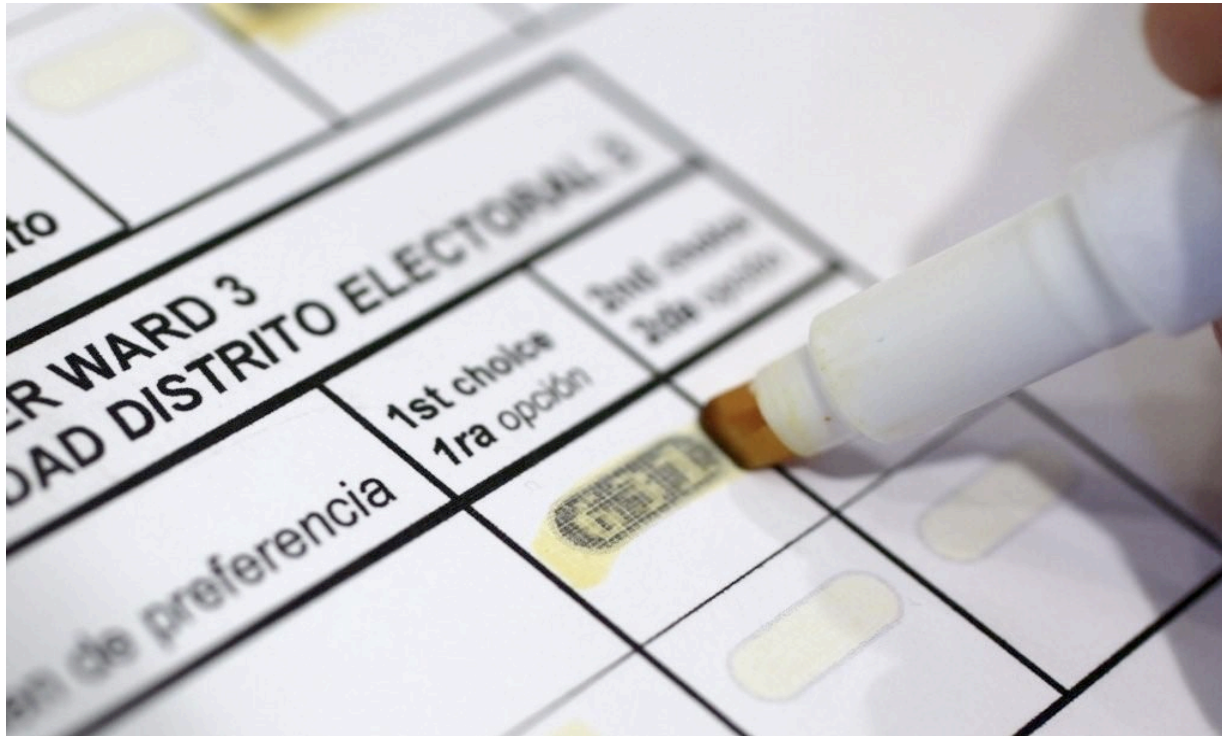
Information about the cast
ballots is posted
on a web site

Voters can check the web site to ensure that their ballot is there correctly and that tally is correct

Ballot secrecy is preserved
by posting not choices
but ``confirmation codes''
associated with chosen bubbles

Confirmation code magically appears when voter marks bubble

Details

- Each ballot has unique ID
- Each ballot has unique pattern of codes
- Web site displays all codes seen on ballot by scanner for requested ballot ID
- Invisible ink ensures that voter only knows codes for choices she made---prevents voters from falsely claiming codes posted incorrectly
- Verifiable mix-net ensures tally is correct
- See our USENIX 2010 paper for more details

David Chaum with ballot scanners at Takoma Park.

Scantegrity works!

Core Team

Richard Carback	David Chaum	Jeremy Clark	John Conway
Aleksander Essex	Paul S. Herrnson	Travis Mayberry	Stefan Popoveniuc
Ronald L. Rivest	Emily Shen	Alan T. Sherman	Poorvi L. Vora

TP Officials

Jessie Carpenter	Anne Sergeant	Jane Johnson	Barrie Hoffman

Auditors

Ben Adida	Lilley Coney	Filip Zagorski

Other Contributors

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