A Proposal for a Camera-based Ballot Counting Device

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ABSTRACT

As in other document imaging applications, cameras may replace scanners in op-scan election systems. Current commercial op-scan devices based on optical scanners have intrinsic limitations because they must incorporate a paper-transport or an optical-assembly translation mechanism. Recent improvements in consumer-grade camera technology allow document-size imaging with a spatial sampling rate, point-spread function, and geometric fidelity sufficient for extracting hand-printed marks from ballots. Expected advantages over current election technology include higher reliability, greater flexibility with respect to ballot formats, and lower cost and power consumption.

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