UC Berkeley
Criminal Law & Justice Center

Evidence-Based Assessment of Police Technologies

Research Partnership with the
Berkeley Office of the Director of Police Accountability

September 2025

UC Berkeley CLJC's role

The Criminal Law & Justice Center provided an independent academic analysis to support ODPA's policy review

Technologies Assessed:

- **CVSA** - Computer Voice Stress Analyzer
  - Used 25+ years for hiring & internal investigations
  - Triggered by media concerns about scientific validity

- **AI Report Writing (Draft One)** - Proposed new technology
  - Proactive assessment before adoption

Goal: Evidence-based recommendations for police technology use

Research Methodology

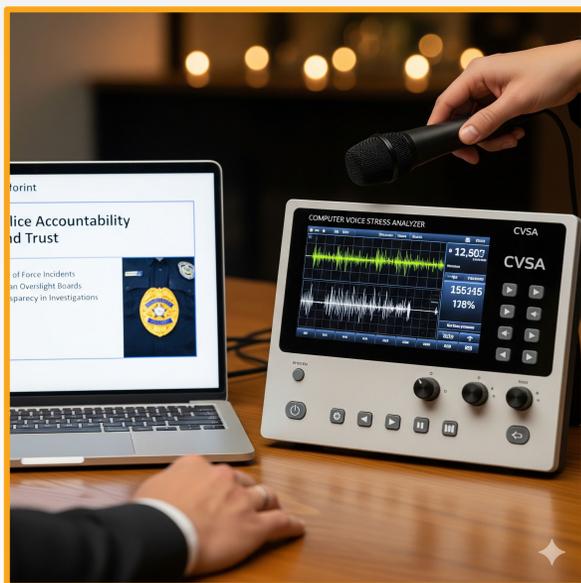| 1. Validity & Accuracy Assessment	2. Operational Impact Analysis	3. Civil Liberties & Risk Evaluation
● Review of empirical research & peer-reviewed studies ● Analysis of manufacturer claims vs. independent findings ● Technical validation of performance metrics	● Effectiveness for law enforcement objectives ● Resource requirements & efficiency gains ● Integration with existing systems	● Privacy implications & data governance ● Bias and fairness considerations ● Legal admissibility & constitutional concerns

Computer Voice Stress Analyzer

AI generated image @Gemini

CVSA Key Research Findings:

- **15% accuracy** detecting lies (NIJ field study)
- 8.5% false positive rate for truthful subjects
- Performance **no better than random chance** (50/50)

Critical Risks Identified:

- High risk of **false confessions**, especially vulnerable populations
- **Not admissible in court** - fails scientific scrutiny
- California Corrections already **discontinued use** as "junk science"

RECOMMENDATION: Immediate cessation of CVSA use
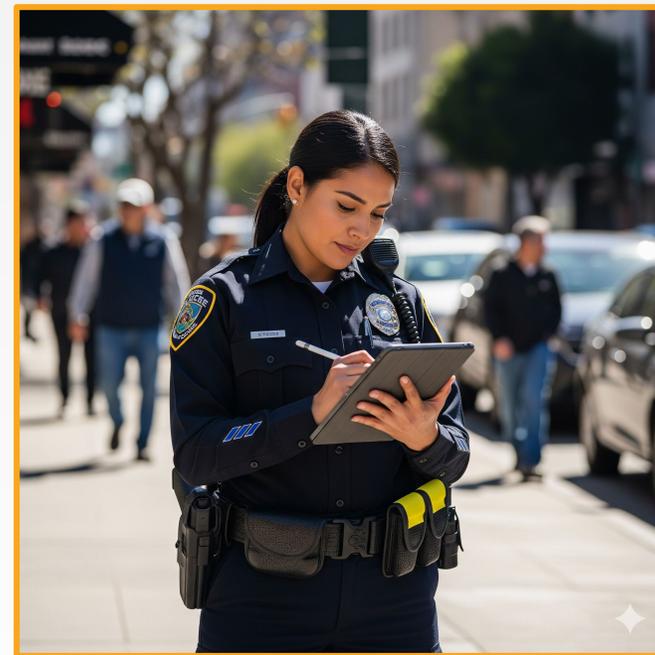
AI Report Writing Analysis

Draft One Technology: Unknowns & Concerns

Five Critical Unknowns:

1. Bias in transcription - ChatGPT 4 shows bias against dialects
2. Error rates - Hallucinations & attribution errors
3. Actual efficiency gains - Studies show no time savings
4. Data sovereignty - Axon's access to Berkeley data
5. Legal admissibility - Confrontation Clause issues

Identified Risks:

- Privacy concerns with third-party data access
- Accountability gaps if officers blame AI for errors
- Potential conflict with Berkeley sanctuary city status

AI generated image @Gemini

AI Report Writing Considerations

AI Report Writing - Cautious Approach

Potential benefits exist, but risks currently outweigh gains without proper safeguards

If considered for adoption:

- Limited pilot program with independent institution
- Subject to Berkeley Municipal Code §2.99
- Mandatory safeguards:
  - AI disclaimers on all reports
  - Officer attestation under penalty of perjury
  - Restrict to non-arrest, non-felony cases
  - Independent validation & monitoring

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