Lecture 4: October 2, 2019

1. Greetings and felicitations!

2. Puzzle of the Day

3. Robust library
   (a) Functions

4. Goals of voting
   (a) Accuracy of count
   (b) Integrity of ballot
   (c) Privacy of voter (both from vote selling and from observation)
   (d) Auditability
   (e) Usability, both by voters and by election staff
   (f) Other requirements

5. Overview of process in Yolo County

6. Where electronic voting systems come in; how they work
   (a) Optical scanning systems
   (b) Ballot marking devices
   (c) Direct recording electronic devices
   (d) Vote tabulation servers

7. Safeguards
   (a) L&A testing before distribution
   (b) Voter-verified paper audit trails
   (c) Certification and testing
   (d) 1% mandatory manual recount
   (e) Risk-limiting audit

8. The U. S. and California certification process
   (a) HAVA
   (b) FEC certification guidelines
   (c) State rules and tests

9. Tests and problems
   (a) Johns Hopkins paper
   (b) RABA study
   (c) California update of voting systems—and the consequences
   (d) Florida CD-13 election
   (e) Other problems
   (f) California top-to-bottom review

10. Internet voting

11. Process modeling and election processes