

# A New Frontier: Technological Acceleration and Improved Fourth Amendment Tradeoffs

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# Machine Intelligence Improves Tradeoffs between Liberty and Security (in at least 4 ways):

1. Better search results
2. Machine analysis vs. human analysis
3. Rule-based search eliminates discretion
4. Technological oversight of government

# The Fourth Amendment: Legal Assumptions

1. There is no privacy interest in hiding a crime
2. Machine analysis of data does not implicate personal privacy interests, or implicates them less than human analysis
3. Concern for privacy and equality: we are worried about government discretion in deciding whom to search

# Improved Search

1. Improvements in data collection and refined search techniques can reduce privacy intrusions
2. Fewer false positives
3. Examples: TSA scanners, scanners that detect guns

# Machine Analysis v. Human Analysis

1. Machines take first cut at information, reducing privacy intrusions
2. Machines can improve security by turning low-level data into high-level information
3. Example: NSA's use of metadata

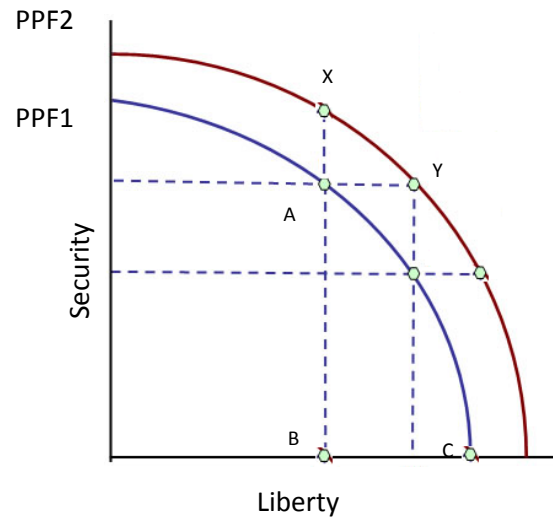
# Machines Eliminate Discretion

1. Machines operate by algorithm, eliminating discretion in search
2. Algorithms can be checked to ensure they account for reasonable, not invidious, factors
3. Examples: TSA scanners, DNA database

# Watching the Watchers

1. Machines can generate data on searches to uncover suspicious uses of information
2. Automated records can be analyzed using the same techniques used to watch individuals
3. Automated records can thus help deter abuses of power

# Technology Can Improve Both Liberty and Security





# Recommendations

1. Case law should recognize that new technology can enhance privacy (e.g., Maryland v. King)
2. Force government to go to the technological frontier (e.g., videotaped confessions)
3. Focus on transparency: retain rules used in machine analysis, so that government decisions can be evaluated systematically
4. Empower individuals: eliminate statutes that forbid individuals from recording and videotaping law enforcement