

Crime Prevention, Public Safety, and Individual Freedom

Posted on October 17, 2019

View this essay online:

<https://academic-master.com/crime-prevention-public-safety-and-individual-freedom/>

Introduction

Crime prevention becomes ethically difficult when technology is capable of stopping unlawful conduct before a person completes it. Advanced impaired-driving systems illustrate this problem because they can prevent a vehicle from operating when alcohol is detected, potentially reducing deaths while also exercising direct control over mobility. The core issue is not whether a person has a right to drive while impaired; no lawful entitlement protects conduct that endangers others. The real question is whether a preventive system interferes with lawful activity in a proportionate, accurate, transparent, and reviewable way. Driver Alcohol Detection System for Safety research has therefore become an important test case for the relationship between public safety and individual freedom. NHTSA has continued to evaluate advanced impaired-driving prevention technology under the Infrastructure Investment and Jobs Act, while emphasizing that passive detection must satisfy demanding technical and regulatory conditions before broad deployment (NHTSA, 2026). A sound policy framework must protect safety without allowing preventive engineering to become unaccountable surveillance or automatic punishment.

Prevention, Opportunity, and the Scope of State Power

Preventive design differs from ordinary criminal enforcement because it changes the opportunity to offend instead of waiting for police, prosecution, and punishment after harm occurs. Society already accepts many preventive systems: secure authentication reduces fraud, locks restrict unauthorized entry, safety interlocks stop dangerous machinery, and vehicle standards require equipment that reduces crash risk. Impaired-driving prevention fits this tradition when it responds to a present and measurable condition rather than predicting moral character. An alcohol-detection system can be justified more readily than a speculative risk score because it connects a defined threshold with the regulated act of driving. Even so, universal passive technology differs from court-ordered ignition interlocks. Interlocks are typically imposed on particular drivers after legal process, whereas passive systems would affect every driver. That broader reach creates stronger obligations concerning calibration, accessibility, cost, reliability, repair, and governance. Prevention should therefore be

evaluated according to the exact system being implemented rather than through the abstract claim that stopping crime is always beneficial or always oppressive.

Accuracy, Emergency Use, and Due Process

Accuracy is the most immediate civil-liberties requirement because a false negative permits an impaired driver to proceed while a false positive can immobilize a sober person. Real-world systems must operate across temperature changes, passengers, cleaning products, medical conditions, varying vehicle interiors, and other environmental factors that can complicate detection. Reliability cannot be expressed only as a laboratory average; regulators need field testing, diagnostics, maintenance standards, recall procedures, and evidence about uncommon but consequential failures. Emergency situations also require careful design. A driver may need to move a vehicle to escape danger or obtain urgent medical care, yet an unrestricted override could undermine the safety function entirely. Limited movement, authenticated emergency procedures, or connection with emergency services may reduce this tension, but no solution eliminates every risk. A person repeatedly affected by malfunction should also have a fast, understandable way to obtain review and repair. When technology can directly prevent mobility, due process begins with engineering that makes errors visible, correctable, and subject to independent oversight.

Privacy, Cybersecurity, and Function Creep

Privacy depends less on the sensor's purpose than on the data architecture surrounding it. A system can detect alcohol locally and discard the result, or it can store sensor readings, images, location, driver behavior, override attempts, and vehicle status for later use. Those designs create very different legal and ethical consequences. Data minimization should therefore be a primary safeguard: collect only what is necessary for the safety function, retain it only as long as needed, restrict access, and prevent automatic secondary use by insurers, employers, advertisers, or law-enforcement agencies. Cybersecurity is equally important because any system capable of limiting vehicle operation is an attractive target for malicious interference. Attackers could disable protection, immobilize lawful users, extort owners, or steal sensitive information. Secure software, authentication, vulnerability disclosure, update procedures, and recovery mechanisms are not merely technical extras; they protect both safety and freedom. Function creep should also require explicit authorization, because technology introduced for alcohol detection should not quietly become a general driver-monitoring platform.

Equity and Proportionality

Equity and proportionality provide a broader test of legitimacy. A system may appear neutral while imposing larger burdens on people with low incomes, rural residents, people with disabilities, workers

who depend on a vehicle, or owners of older cars. Repair costs, calibration delays, limited service centers, and mistaken immobilization can carry very different consequences depending on a person's resources. Public policy should therefore address warranties, accessible repair, consumer remedies, disability accommodation, and the transition between older and newer vehicle fleets. Proportionality asks whether the harm being prevented is serious, whether the intervention is likely to reduce it, whether less restrictive alternatives are insufficient, and whether safeguards limit unnecessary interference. Impaired driving clearly satisfies the seriousness requirement because it exposes passengers, pedestrians, and other road users to lethal risk. The remaining questions depend on performance and design. A highly accurate system that stores no unnecessary data and offers rapid correction is ethically different from a vague behavior monitor that immobilizes drivers unpredictably and shares information with third parties.

A Layered Public-Safety Strategy

A balanced impaired-driving policy should therefore combine prevention technology with traditional measures rather than treating engineering as a substitute for responsibility, treatment, transportation policy, and fair enforcement. Alcohol-detection systems cannot address every drug, every unsafe decision, or every vehicle already on the road. Communities still need designated-driver practices, public transportation, substance-use treatment, licensing rules, education, and enforcement against dangerous driving. Public rulemaking should disclose technical standards, system limitations, testing data, privacy protections, and procedures for consumer complaints. Independent researchers and regulators should evaluate real-world effects after deployment, including false positives, unequal burdens, circumvention, crash outcomes, and cybersecurity incidents. If evidence reveals serious malfunction or disproportionate harm, the standard should be revised rather than defended merely because implementation is expensive. Preventive technology is legitimate when it reduces a clearly defined danger while preserving lawful autonomy through evidence, transparency, accountability, and narrow purpose. It should neither be rejected simply because it restricts an opportunity to offend nor accepted merely because safety is a worthy goal.

Conclusion

Perfect crime prevention is ultimately an aspiration rather than a realistic description of any technological system. DADSS and related impaired-driving research show why prevention can be both valuable and constitutionally sensitive. Society does not protect a freedom to drive while unlawfully impaired, yet it does protect people against unnecessary surveillance, arbitrary restriction, inaccurate government action, and unequal treatment. The strongest distinction is therefore between direct prevention of a measurable dangerous condition and speculative prediction about future behavior. Alcohol sensing can be justified when the technology is reliable, proportional, minimally invasive, and confined to its stated safety function. As preventive systems become more capable, the same principles should guide other applications: measurable risk should be preferred over character

inference, data collection should be limited, human review should remain available, and expansion beyond the original purpose should require separate public authorization. Public safety and individual freedom are not automatically opposing values. Well-designed institutions can pursue both by making prevention effective enough to protect others and constrained enough to remain accountable to the people it governs.

References

National Highway Traffic Safety Administration. (2026). *Advanced Impaired Driving Prevention Technology: Report to Congress*.

National Highway Traffic Safety Administration. (2023). *Advanced Notice of Proposed Rulemaking: Advanced Impaired Driving Prevention Technology*.

United States Congress. (2021). *Infrastructure Investment and Jobs Act*, Pub. L. 117-58, sec. 24220.