"HOW'S MY DRIVING?" SIGNS ON THE BACKS OF TRUCKS REALLY DO MAKE THE ROADS SAFER. WHAT IF WE ALL HAD THEM ON OUR CARS? PROFESSOR LIOR STRAHILEVITZ POSITS AN ANSWER IN THIS EXCERPT FROM HIS ARTICLE IN THE NEW YORK UNIVERSITY LAW REVIEW.

The stakes associated with traffic accidents and commuting-related stresses are enormous. Vehicular collisions are the leading killer of Americans aged fifteen to twenty-nine. Worldwide, traffic accidents kill nearly 1.2 million people annually. Recent economic research has placed commuting at the very bottom of the happiness index, easily ranking as the least pleasurable major life activity in which Americans engage. Despite this, the average American worker spends more than forty-eight miserable minutes a day commuting to and from work, completely frustrated by his inability to do anything about the relatively small number of obnoxious drivers who are imposing substantial costs on everyone else.

There is, in short, far more blood on the pavement in the realm of traffic law than there can ever be from intellectual property, corporate, or e-commerce law. Yet while scholars in those fields have begun showing how technology can aggregate and harness information to improve laws and lives, scholars interested in transportation policy have virtually ignored these insights. That blind spot is surprising, given that information relevant to transportation regulation is so readily available and while dispersed can be gathered quite inexpensively. Yet virtually all of it presently goes to waste. Were that information harnessed, it might be used to save thousands of lives and push criminal laws to the margins.
This Article explores the use of information aggregation technologies to deter, detect, and punish citizen misconduct. It focuses on the most promising and significant application of this approach to law enforcement: traffic regulation.

Harnessing the knowledge created by technologies that aggregate dispersed information has become a central concern of legal academics, economists, and policymakers in the new millennium. Some academic work has focused on information aggregators like Wikipedia, an online encyclopedia to which anyone can contribute and which is more extensive than Britannica and nearly as accurate.

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Others have explored the virtues of information markets, which seem capable of predicting future events with greater accuracy than any assembled group of experts. Simultaneously, many economists have explored eBay's extraordinarily successful system for aggregating and displaying reputation information for millions of unique users.

Imagine what it would be like to buy items on eBay without reputation scores evaluating sellers: buyers would face the risk that a seller might abscond with the proceeds of a sale. Some buyers would discover that they had purchased counterfeit, defective, or stolen goods, and they would be left with little recourse beyond tracking down and suing far-flung sellers. But the vast majority of wrongdoers would escape into the ether, taking the money of trusting buyers with them. As a result, buyers would be scared away from dealing with obscure sellers, and the prices paid for goods on eBay would drop substantially.

A modern, urban freeway is a lot like eBay but without reputation scores. Most drivers on the freeway are reasonably skilled and willing to cooperate conditionally with fellow drivers. But there is a sizable minority that imposes substantial costs on others in the form of accidents, delays, stress, incivility, and rising insurance premiums. Because enforcement of traffic laws by police officers is sporadic and often targeted toward those offenses that are easiest to prove—as opposed to those that impose the greatest harm on motorists—insurance companies face substantial obstacles sorting between the good drivers and the bad. As a result, safe drivers pay higher premiums, and good drivers who are part of accident-prone demographic groups pay far higher premiums than they would if insurance companies had perfect information.

Just as eBay developed a successful technological solution to the problem of online auctions, there are sensible and attainable technological solutions to the problems created by motorist anonymity. These solutions could produce enormous social benefits in the form of lives saved, property damage avoided, everyday unhappiness alleviated, road rage mitigated, and law enforcement resources redeployed. Every day thousands of motorists are watching their fellow motorists drive and are often talking (to themselves or passengers) about who is driving well or poorly. Using available technologies to harness this dispersed information could generate great welfare gains. Can this information be put to use? It appears so.

The problems associated with driving are, by and large, creatures of motorist anonymity. (Motorist anonymity arises when another driver observes my behavior but is unable to identify me as Lior Strahilevitz as opposed to, say, some guy in a dark green Honda Civic.) That statement may seem too bold to readers accustomed to hearing about drunken driving, drowsy driving, and road rage. But a review of the literature on driving suggests that these problems largely stem from roadway anonymity. If society were able to monitor its roadways around the clock and to analyze this data immediately to identify and punish problematic motorists, many of the traffic accident deaths that occur every year would be averted.

The evidence of a link between anonymity and aggressive driving is reflected in numerous studies, all of which reach essentially the same conclusion: people are more likely to drive aggressively when they can avoid sanctions, but drive courteously when they believe they will be held accountable for misconduct.

In addition, a recent study makes a convincing case that aggressive behavior by anonymous drivers triggers further aggression by those around them. Motorists who witness bad driving or aggressive driving become frustrated by their inability to sanction the offending motorists, and, as a result, they often engage in retaliatory aggressive driving or, worse yet, extreme acts of felonious road rage.

In light of this data, we should expect to see programs
that reduce roadway anonymity substantially decreasing aggressive driving and vehicular collisions. The best available data from the most prominent such program strongly supports that hypothesis.

It is likely that readers of this Article have seen bumper stickers or placards emblazoned on the back of commercial trucks, vans, and buses asking the question: “How’s My Driving? Call 1-800-xxx-xxxx with compliments or complaints.” Motorists dial these phone numbers to report good or bad behavior by commercial drivers. These calls are translated into a report of each incident, including details about the incident, the reporter’s identity, and the road conditions. This data is immediately provided to the fleet operator, who usually investigates incidents, tracks reports about each driver, conducts training sessions to correct recurring problems, and sanctions repeat offenders where appropriate. Various studies, mainly conducted by insurance companies, have shown that the implementation of How’s My Driving? (HMD) placards, along with

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systems for monitoring the performance of individual drivers and investigating complaints, engender substantial reductions in accidents and losses—in studies, accident frequency dropped by as much as 53 percent.

Assuming the existing data reveals a causal effect, and HMD programs do reduce collisions and collision-related losses, to what can we attribute these improvements in fleet safety? First, the presence of these placards reminds commercial fleet drivers that they are accountable for

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behavior that is likely to annoy fellow motorists. Being watched acts as a deterrent to bad acts. Second, the information obtained from HMD calls allows commercial fleets to identify the worst drivers for extra training or dismissal.

A critical fact supports the hypothesis that there is a great deal of additional information about individual drivers that currently goes to waste. A recent experiment has shown that drivers' verbal responses to aggressive driving are often essentially automatic. The majority of people are already complaining to themselves about aggressive drivers. People are complaining to their passengers. And some people are complaining to the government. If only we could develop a system that harnessed these complaints without imposing too heavy a burden on drivers, an enormous amount of additional evidence would be revealed about the identities of aggressive drivers. If the results of all of these experiments and surveys can be generalized, the public goods problem would essentially disappear.

So let us survey this terrain. HMD placards generate rather modest per-vehicle call volumes, yet these occasional calls are evidently sufficient to improve commercial fleets' safety performance through some combination of deterring aggressive driving and allowing firms to identify their worst drivers in an expeditious manner. These placards were apparently successful even when cellular phones were far less prevalent than they are today, and continue to be successful even though there are monetary and safety costs associated with reporting a driver's misconduct to an HMD call center. It stands to reason that by further lowering the costs of reporting driver misconduct, HMD systems could do a much better job of identifying the worst offenders, even among a much larger population of drivers.

So why not expand HMD programs to include all motor vehicles driven in the United States and install in each vehicle a voice-activated device that facilitates the reporting and tracking of motorist misconduct? Call it "How's My Driving? For Everyone."

Just as each new passenger vehicle is required to have seat belts, the federal government could mandate the installation of HMD placards or bumper stickers on the front and rear of each passenger vehicle in the United States. Each placard would provide a unique identifier for each vehicle, piggybacking on existing license plate numbers if appropriate. By pressing a button on their dashboards and speaking into a steering wheel–mounted microphone, motorists would be able to contact a national HMD call center and provide the vehicle's unique identifier in order to lodge compliments or complaints. The law would require the illumination of the placard at night and mandate its visibility whenever the vehicle was moving. Law enforcement officials would be able to use the unique identifiers as well—for example, to gauge instantly whether a particular vehicle's liability insurance is valid by accessing a single centralized registry.

Here is how a low-tech version would work. Suppose motorist A was driving along Interstate 5 and was suddenly, and dangerously, cut off by motorist B. Under this new program, motorist A could contact an HMD call center, and say the following words: "896JXD402, subtract 1 point, driver cut me off without signaling." Each motorist would be allotted a set number of positive and negative
points that they could distribute to other motorists during a particular month. These points could be dispensed one at a time or cumulatively for extreme acts of aggression or kindness. The call center would then convert the call reports into incident data for each vehicle on the road, possibly using automated voice recognition software.

The financial consequences of any particular report would not be substantial, but the aggregate consequences for a month’s worth of extremely courteous or discourteous driving could be significant. Vehicle owners would receive a monthly or quarterly invoice from the HMD monitoring center, along with a bill (if negative points on their driving exceeded positive points) or a check (if positive points substantially exceeded negative points). These would be styled as civil fines and rewards.

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Given the apparent safety improvements associated with HMD programs, we can conceptualize HMD as a vehicular safety device designed to save lives and dollars. It is a new kind of device—one that harnesses the value of dispersed information that currently goes to waste.

The ultimate test would be whether an HMD program withstands cost-benefit analysis. We know that HMD makes drivers accountable for conduct that is public but that remains obscure solely because of resource constraints. With respect to benefits, we would be aggregating the value of collisions avoided, including lives saved, injuries prevented, work interruptions avoided, litigation and insurance administration costs eliminated, and property damage averted. Data on HMD for commercial vehicles suggests that collision reductions could range from 20 percent to 50 percent. Other recent estimates suggest that fatal traffic accidents alone cost the United States 2.2 percent of its gross domestic product. Using the Bureau of Economic Analysis’s 2005 estimate of $12.76 trillion for GDP, the cost of such accidents in the United States equaled $280 billion. A 20 percent reduction in fatal crashes therefore would save society upwards of $56 billion per year, based on these conservative, back-of-the-envelope calculations. Other benefits identified in this Article would include cost savings on law enforcement, enhanced efficiencies from reduced information asymmetries in the insurance market, substantial improvements in everyday driver happiness, and significant expressive benefits from enabling drivers to sanction those who endanger or frustrate fellow motorists.

On the costs side, we should include the costs associated with establishing an HMD system, the costs of malicious and inaccurate feedback, and the costs incurred by those motorists who would suffer disutility from having their driver behavior adversely evaluated by peers. There would also be some driver distraction costs associated with HMD. However, these distraction costs would be offset (perhaps fully) by a reduction in two other forms of driver distraction: distraction caused by an inability to sanction an aggressive driver in a measured way and distraction caused by rubbernecking.

In short, the costs and benefits of HMD are presently indeterminate and will remain so until a pilot program is implemented or further experimental studies are conducted. That said, it seems entirely plausible that the benefits associated with HMD will outweigh the associated costs, perhaps by a wide margin.

Just as eBay’s reputation-tracking system tamed e-commerce fraud rather effectively, “How’s My Driving? for Everyone” might rein in aggressive, inconsiderate, and unsafe driving. At any given moment, there are millions of Americans watching their fellow motorists behave badly. Many of these drivers mutter to themselves about their peers’ misconduct, growing increasingly frustrated with their driving experience. At times, this frustration boils over into extreme acts of road rage. The opinions are formed, the information exists, and all the government needs to do is harness this information. In so doing, the government would be delegating substantial traffic regulation duties to its drivers. In one fell swoop such a program could eliminate the need for vast numbers of traffic police; enable insurers to price automobile premiums in a more individualized, less discriminatory manner; and, quite possibly, make urban driving fun again.