

***1699** “HOW'S MY DRIVING?” FOR EVERYONE (AND EVERYTHING?)

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***1700** Introduction

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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 [\[FN6\]](#) and the nation's fourth largest cause of lost disability-adjusted life years. [\[FN7\]](#) Worldwide, traffic accidents kill nearly 1.2 million people annually. [\[FN8\]](#) 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. [\[FN9\]](#) Despite this, the average American worker spends more than forty-eight miserable minutes a day commuting to and from work, [\[FN10\]](#) completely frustrated by his inability to do ***1703** 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 aggregated information can be harnessed to improve laws and lives, scholars interested in transportation policy have virtually ignored these insights. [\[FN11\]](#) That blind spot is surprising, given that the dispersed information relevant to transportation regulation is so readily available and can be gathered quite inexpensively, yet virtually all of it presently goes to waste. Were that information harnessed, by contrast, it might be used to save thousands of lives and push criminal laws to the margins.

Among the various technologies that have facilitated the aggregation of dispersed information, eBay's reputation system may be the most successful so far. We can underscore the importance of eBay's seller reputation scores by imagining what it would be like to buy items on eBay without them: Buyers would face the constant risk that a seller might abscond with the proceeds of a sale, necessitating significant expenditures on escrow services for nearly every transaction. Even using escrow, there would be substantial problems in the absence of seller reputation rankings. Some buyers would discover after the fact 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. Law enforcement authorities might occasionally prosecute the worst offenders for mail fraud or trafficking in counterfeit goods, 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. [\[FN12\]](#)

A modern, urban freeway is a lot like eBay without reputation scores. Most drivers on the freeway are reasonably skilled and willing ***1704** to cooperate conditionally with fellow drivers, but there is a sizable minority that imposes

substantial costs on other drivers, in the form of accidents, delays, stress, incivility, and rising insurance premiums. Because enforcement of the 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 among the good drivers and the bad. As a result, safe drivers pay higher premiums, and good drivers who are part of demographic groups that are accident-prone 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 among Internet users, there are sensible and attainable technological solutions to the problems created by motorist anonymity. These technological 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. An urban freeway contains thousands of motorists who are watching their fellow motorists drive and who 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 best available evidence suggests that using “How's My Driving?” placards on commercial vehicles substantially improves fleet safety. This Article proposes a massive expansion of these primitive placards with the implementation of a novel program called “How's My Driving?’ for Everyone.”

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I

Anonymity and Aggressive Driving

“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.

The problems associated with urban and suburban driving are, by and large, creatures of motorist anonymity. 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. A dangerous driving environment is the almost inevitable consequence of sporadic traffic law enforcement by the police combined with rare traffic norm enforcement by motorists.

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. [\[FN13\]](#) The cleverest of these *1706 studies found that drivers of convertibles behave more aggressively with their tops up than their tops down, [\[FN14\]](#) even

though hotter weather is associated with both one's top being down and aggressive driving. [\[FN15\]](#) This observational evidence is consistent with data showing that road rage is relatively rare in those areas where roadway anonymity is diminished, such as small rural communities, [\[FN16\]](#) and that people drive more aggressively when they are driving alone than when there are passengers in their cars. [\[FN17\]](#)

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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.

A. "How's My Driving?" for Commercial Fleets

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, typically using cellular phones, to report good or bad behavior by commercial drivers. The monitoring company employees who answer these calls then make 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 each incident, tracks reports about each driver, conducts training sessions to correct recurring problems, and sanctions repeat offenders where appropriate. [\[FN25\]](#)

In recent years, companies that operate "How's My Driving?" (HMD) programs have expanded their operations substantially. [\[FN26\]](#) This expansion has been fueled by various studies, mainly conducted by insurance companies, showing that the implementation of HMD placards, along with systems for monitoring the performance of individual drivers and investigating complaints, engender substantial *1709 reductions in accidents and losses. Reviewing these studies, Knipling et al. reported:

[S]everal studies, mostly by insurance providers, have researched the efficacy of using safety placards, such as "How's My Driving" stickers in improving safety in [commercial motor vehicles]. These studies have shown significant reductions in vehicle crashes, insurance premiums, and DOT reportable crashes when fleets used safety placards with an effective feedback loop, that is, feedback combined with training and instruction. For example, the Hanover Insurance Co. conducted a study with 11 different trucking fleets (n = 445 trucks) using "How's My Driving" safety placards and reported a 22% reduction in crash rate and a 52% reduction in crash costs after 1 year. [\[FN27\]](#)

Other insurance company analyses, reported in press accounts, have found similarly substantial benefits from HMD: Reliance Insurance Company found that implementing HMD placards was associated with a 35% reduction in crash costs in the first year, [\[FN28\]](#) and Fireman's Fund Insurance found a 20% reduction in accidents. [\[FN29\]](#) * * *

*1710 These results are striking, suggesting that existing HMD programs

may result in large cost savings and prevent many injuries and deaths. * * *

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? There appear to be two mechanisms at play. First, the presence of these placards reminds commercial fleet drivers that they are accountable for behavior that is likely to annoy fellow motorists. [\[FN39\]](#) 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. [\[FN40\]](#) * * *

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D. “How's My Driving?” for Everyone

HMD placards, which began with commercial fleets, are now migrating toward noncommercial vehicles driven by teens. Georgia required all state-owned vehicles, with the exception of police cars, to display HMD placards in June of 2005. [\[FN76\]](#) That same year, Israel became the first nation to mandate the display of HMD placards on all commercial vehicles. [\[FN77\]](#) This expansion of HMD raises the question: Why stop there? Why not, rather, 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? [\[FN78\]](#)

Just as each new passenger vehicle is required to have seat belts, [\[FN79\]](#) 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. [\[FN80\]](#) By pressing a button on their dashboards and speaking into a steering wheel-mounted microphone, motorists would *1718 be able to contact a national HMD call center and provide the vehicle's unique identifier in order to lodge compliments or complaints. [\[FN81\]](#) 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, after accessing a single centralized registry.

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Here is how a low-tech version would work: Suppose motorist A was driving along Interstate 5 and was suddenly cut off by motorist B, who failed to signal a lane change and abruptly hit the brakes, forcing motorist A to brake suddenly. Under HMDFE, 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. [\[FN83\]](#) *1719 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 HMDFE 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). [\[FN84\]](#) These would be styled as civil fines and rewards. [\[FN85\]](#)

Call centers would record the phone number and name of the complainant, though this information would not be provided to the motorist whose driving sparked this complaint. HMDFE could be designed as a revenue-neutral subsidy from bad drivers to good drivers, or, more likely, revenue collected could be used to offset the loss of government revenue from speeding tickets and other moving violations. Reports could also be made available to insurers, who would be free to use the data to set premiums.

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II

The Case for “How's My Driving?” for Everyone

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A. Putting Scarce Law Enforcement Resources to Better Use

It is largely because of the absence of an effective HMDFE program or other effective reputation-tracking regime that society must assign substantial law enforcement resources to policing the roadways. In state courts, traffic violations account for 55% of all incoming cases. [\[FN86\]](#) Moreover, when traffic citations are issued and motorists decide to contest their citations, police officers must travel to traffic court to testify and present evidence, [\[FN87\]](#) an inefficient use of their time ***1721** that inevitably follows from the criminal nature of many traffic penalties. [\[FN88\]](#)

Needless to say, an HMDFE program would enable the government to redirect traffic police to other endeavors where dispersed information aggregation systems would be less effective. Alternatively, HMDFE would enable state and local governments to shift resources towards other objectives, such as health care, education, or infrastructure. That is not to say that an HMDFE program would allow governments to dispense with traffic police altogether. Some police would still be necessary to help direct traffic around collision sites, to ensure that drivers did not disable their vehicles' HMD placards, to identify and impound cars driven by uninsured drivers, and perhaps to intervene immediately when an extremely reckless motorist's behavior triggers substantial numbers of reports from motorists.

Some tasks currently performed by traffic police, like writing tickets for motorists who drive at excessive speeds or run red lights, could be delegated entirely to the HMDFE program. Indeed, when crashes occur, detailed police reports usually would be unnecessary. HMDFE communications centers could expect to receive several contemporaneous reports from other drivers who witnessed the collision, which would help resolve blameworthiness in many cases where it might otherwise be contested. This would also solve the chronic problem of collision underreporting, which is one of the more severe information asymmetries currently faced by automobile insurers.

B. Optimizing Monitoring of Roadway Violations

Police officers are probably only a little better than individual motorists at recognizing traffic violations. Officers have tools like radar detectors at their disposal, and perhaps somewhat better expertise regarding various traffic rules, but little comparative advantage beyond that. Whatever advantage individual police officers have over individual motorists is swamped by two factors: First, the presence of a marked police car induces motorists to change their driving behavior ^{*1722} significantly, so as to comply with the law. [\[FN89\]](#) Second, police cruisers are dramatically outnumbered by other vehicles on the roadway. [\[FN90\]](#) An effective HMDFE program would essentially turn every vehicle into an unmarked police car, resulting in substantial reductions in unlawful or inconsiderate driving behavior.

Beyond their numerical advantage, there are reasons to expect that the quality of self-policing by motorists would exceed the quality of governmental policing.

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The bread and butter of many state and local police departments is writing speeding tickets. * * * For example, in 2003, Dane County, Wisconsin issued more than sixty times as many speeding citations as tailgating citations. [\[FN91\]](#) Indeed, speeding citations outnumbered the combined citations issued for tailgating, running stop signs, running red lights, illegal turns, illegal passing, unsafe backing, unsafe lane deviations, and inattentive driving by a factor of 6.6. [\[FN92\]](#)
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As a result of this emphasis on speeding, other traffic laws go underenforced. Survey data reveals that only 6.4% of motorists who admitted to running a red light recently have ever been ticketed for the practice, and that motorists are far more likely to have been involved in an accident where one motorist ran a red light than they are to have received a ticket for running a red light. [\[FN95\]](#) Police officers, in short, seem to be overpolicing the motorist misconduct that is easiest to detect and underpolicing the misconduct that leads to the most collisions.

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III

Objections to “How's My Driving?” for Everyone

Having made out what I believe to be a rather strong affirmative case for HMDFE, I shall now discuss some of the serious objections that no doubt have occurred to readers. While several of these objections have merit, I shall suggest that, even in combination, they do not offset the advantages detailed above. Moreover, a few of the arguments that at first glance look like objections ultimately may strengthen the case for implementing HMDFE.

A. Inaccurate and Malicious Feedback

Because an HMDFE system is only as good as the feedback it receives, we must examine whether we can expect such feedback to be accurate. We can identify two quite different problems here: First, deliberately inaccurate (positive or negative) feedback, and second, feedback provided in good faith that turns out

to be mistaken. The former issue presents greater challenges, and should be treated at length.

It is rather easy to imagine scenarios whereby HMDFE systems could be abused. Let us bring the most troublesome scenarios to the forefront: Suppose a racist driver cruises around town, assigning negative feedback to African-American or Asian-American motorists who are driving in an acceptable manner. Or imagine that HMDFE feedback is used to harass an unpopular individual for reasons having nothing to do with her driving performance. There is no doubt that HMDFE might invite this type of distasteful conduct, along with occasional inaccurate positive feedback. That said, there are reasons to believe that such misconduct will be rare, that technology can ameliorate such problems when they do arise, and that the problems associated with biased drivers would be no worse than the problems created by biased cops in the current police-based traffic enforcement regime.

Commercial fleet drivers sometimes object to HMD programs based on a fear that callers will phone in false reports. [\[FN137\]](#) Yet it turns out that inaccurate reporting for commercial fleet drivers is relatively uncommon in HMD programs. Anonymous reports to HMD call centers generally are not permitted, although the identity of callers is ***1733** never reported to the offending drivers. [\[FN138\]](#) A small minority of drivers prompt the majority of calls, and after these drivers are identified for retraining or discharge, fleet accident rates drop sharply. [\[FN139\]](#) This evidence cannot be reconciled easily with the hypothesis that many HMD calls are motivated by racial animus, harassment, or pranks. To be sure, drivers of passenger vehicles might be more susceptible to malicious reports thanks to the greater proximity of the driver to his or her rear bumper, and women and minorities may be underrepresented in the ranks of commercial drivers. Still, while one might expect to see more prejudiced feedback in HMDFE than HMD for commercial vehicles, there is little reason to expect a plethora of false reports in the HMDFE context.

False feedback is also a concern in online reputation regimes, and software developers, as well as economists, have developed algorithms to detect deliberately false feedback. Essentially, the idea is that the system discounts outlier scores--instances in which a buyer gives negative feedback on an overwhelmingly well-rated merchant or vice versa. [\[FN140\]](#) There is a cost to eliminating these outliers, in that a good merchant sometimes behaves badly, just as a good driver sometimes makes mistakes. [\[FN141\]](#) That said, in an environment like eBay, where most users are behaving honestly, algorithms designed to weed out likely false reports are welfare enhancing. [\[FN142\]](#) As long as reputation systems elicit a lot of user feedback, isolating and ignoring problematic feedback is reasonably straightforward. [\[FN143\]](#) Moreover, it is worth ***1734** emphasizing that online reputation-tracking technologies are still in their infancy, and dramatic improvements to the eBay system for identifying false feedback can be expected in the years ahead. [\[FN144\]](#)

These algorithms could be adapted to the HMDFE regime quite readily. Indeed, by gaining more information about drivers than eBay has about buyers and sellers, the system could police racist and other forms of problematic feedback quite effectively. For example, if an HMDFE system knows the race of various drivers, it can discount or even ignore the ratings of white drivers who routinely assign suspiciously high levels of negative feedback to African-American drivers. Similarly, if the system knows where people work, study,

and live, it can discount or ignore feedback among people who live in the same household, attend the same high school, or who work for the same company. [FN145] Moreover, the system can discount repeat evaluations among the same drivers. In an urban environment, if one driver or a small group of drivers are repeatedly giving positive or negative feedback to a particular driver, there is probably something fishy going on, and the system can ignore these suspicious rankings. [FN146] In other words, so long as we are willing to seed an HMDFE system with information about characteristics that might form the basis for inaccurate feedback, we can develop algorithms to help address the problems associated with deliberate inaccuracy.

In some respects, HMDFE would be better equipped to deal with malicious feedback than the online reputation sites. Online reputation sites suffer somewhat because users with poor reputations can always “flush” their existing identities and start over with a blank slate. [FN147] HMDFE would use each participant's unique identifier (vehicle VIN numbers and/or driver's license numbers) to prevent these sorts of evasions. Since the state already tracks vehicle ownership, even acquiring a new vehicle would not be a viable “flushing” *1735 strategy. [FN148] A well-designed HMDFE system, in short, ought to be able to ameliorate the problems with malicious feedback. Like Wikipedia, eBay, and open source projects, it will not be able to eliminate malicious information entirely. But algorithms that take advantage of driver information from motorist reports, pre-existing government records, and third-party databases should be able to meet, if not exceed, the accuracy and usefulness of Wikipedia's voting system, eBay's fraud patrols, and open source filtering mechanisms. [FN149]

One additional point is worth emphasizing on this score: An HMDFE regime with occasional inaccurate reporting should not be compared to an ideal system of police traffic enforcement. Police enforcement in the real world is hardly first best. Police officers are prone to the same biases as other people, [FN150] and training to correct for those biases is imperfect. Delegating traffic enforcement to drivers *1736 themselves is a nice way of ensuring that traffic enforcers reflect the demographics of the surrounding communities. [FN151]

What about feedback that the caller believes to be true, but that turns out to be inaccurate? On the whole, the experience of companies using HMD programs and the experimental research on driving attitudes suggests that the signal-to-noise ratio from HMDFE would be comfortably high. Again, the more feedback is generated, the less difference an occasional good-faith mistake will make, and the more reliably outlier reports can be identified.

That said, there is some evidence to suggest that individuals may rely on stereotypes to generate their opinions of what contributed to a particular collision. After presenting research subjects with written descriptions of accidents and asking them to assign blame, a study by Lawrence and Richardson found that gender and car type significantly affected these judgments. [FN152] More specifically, male drivers were judged to be more aggressive (a stereotype that is consistent with other data), [FN153] and female drivers were judged to be more careless (a stereotype that is not supported by other data). [FN154] Similarly, BMW drivers were judged more likely to have behaved aggressively than drivers of tiny Smartcars (a stereotype that is consistent with some, but not all, of the other data). [FN155] In laboratory settings, then, people are influenced by external factors in designating other drivers as blameworthy.

In real-world settings, where aggressive driving often provokes visceral responses, these biases tend to fade into the background. For example, the intensity of driver reactions and the length of their verbal response did not differ when they were confronted by honking *1737 low-status or high-status vehicles on the roadway, although research subjects did accelerate more quickly to get away from honking drivers of low-status vehicles. [\[FN156\]](#) This suggests that HMDFE data will not perfectly reflect what actually happens on the roadways, but it should reflect it closely enough for the system to operate reasonably well. Indeed, other feedback systems, such as eBay's, should be susceptible to some of the same biases, based on sellers' existing feedback profiles, [\[FN157\]](#) yet those feedback systems are generally hailed as major successes. Moreover, keeping in mind the relevant comparison is again useful here. Police officers will hold many of the same subconscious biases, [\[FN158\]](#) and these biases may be more problematic in the officer context because resource constraints require high levels of selective enforcement on the roadways.

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*1743 D. Information Privacy Interests

Information privacy advocates occasionally sound the alarm about existing automated enforcement regimes, where rental car or insurance companies monitor individual drivers' behavior through the use of GPS or other surveillance technologies. [\[FN184\]](#) Especially when discussions turn to sharing this information with the government, these same privacy advocates are quick to invoke George Orwell's 1984. [\[FN185\]](#)

I teach and write about information privacy law, [\[FN186\]](#) but I have difficulty understanding the appeal of these kinds of claims. I can comprehend the individual privacy interest in travel destinations and why twenty-four-hour GPS monitoring of a vehicle might intrude on a legitimate privacy interest. After all, twenty-four-hour monitoring of that sort would allow the monitor to infer a great deal about the driver's intimate associations, medical information, and political activities. But we can and should remedy these concerns by forbidding monitoring entities from piecing together information about drivers' travel patterns and by protecting vigilantly the HMDFE databases that would contain information that reveals these patterns. As long as appropriate data security and data transfer protections are implemented, crucial privacy interests can be vindicated without compromising the objectives of the HMDFE program. [\[FN187\]](#)

The information privacy interests that motorists would assert to prevent governments or insurers from discovering, say, their speed or braking distance, are not weighty. There is nothing private about road speed: It can be discerned with substantial accuracy by a police officer, a bystander holding a radar gun, or a motorist driving behind the car being monitored. There is no connection between road speed, or propensity to tailgate, and intimate conduct of any kind. [\[FN188\]](#) Nor do *1744 these bits of information implicate our interests in facilitating the development of personalities, affect sensitive medical information, or undermine valuable confidential relationships. Privacy is a means, not an end. [\[FN189\]](#) We should protect privacy if, and only if, doing so promotes social welfare. It is difficult to identify any benefit of roadway anonymity with respect to information about drivers' road speed or tendencies to weave through traffic and cut off other motorists.

Driving usually takes place in very public places. As a result, it is appropriate that the courts have not been receptive to arguments that drivers maintain reasonable expectations of privacy with respect to where their vehicles are traveling. [FN190] Almost everything that could be learned through the implementation of an HMDFE regime could be learned through multiplying the present number of traffic police by a factor of ten. Yet virtually no one contends that increasing the number of police officers patrolling the streets would violate individual privacy rights. [FN191] HMDFE makes drivers accountable for conduct that is public but that remains obscure solely because of resource constraints. The only time an individual has a reasonable expectation of privacy with respect to her driving is when no one else is around. In those settings, HMDFE protects the privacy of her conduct, because there would be no motorists, bystanders, or law enforcement officials to report any good or bad driving.

Existing privacy norms might foreclose HMDFE implementation, but the foregoing analysis suggests that privacy advocates should avoid a knee-jerk response and ask themselves: “How does motorist obscurity promote social welfare?” There are plenty of privacy causes worth defending in contemporary society. In my view, motorist obscurity is simply not one of them.

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IV

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V

“How's My Driving?” for Everything?

In a standard thought piece, a concluding section discusses the various ways in which the model proposed might be extended to other settings. There is some awkwardness in writing that section of this Article; after all, my proposal itself extends two related ideas--commercial fleet HMD programs and eBay-style electronic reputation tracking--to a much larger arena. Nevertheless, we can conceptualize this Article's proposal as a new paradigm for the enforcement of societal rules: In public spaces where social norms are reasonably well-developed and universal, and where policing by government agents is ***1760** inherently problematic, we can rely heavily on citizens themselves to police misconduct.

As suggested earlier, [FN227] work by social norms scholars has postulated that efficient citizen enforcement can occur naturally in close-knit groups, where repeat player interactions are common, information pertinent to social control flows easily, and relations among actors are somewhat multiplex and not too hierarchical. [FN228] But in environments where those conditions do not hold (i.e., among loose-knit groups) social order sometimes breaks down, necessitating a substantial police presence. The idea behind this Article is to use technology to transform loose-knit environments into close-knit environments, so that the police presence can be curtailed substantially without compromising safety. These schemes therefore replace state policing with citizen policing, laws with norms, and, to some extent, rules with standards. In thinking about extensions of the approach, then, it makes sense to think about other loose-knit environments where social disorder sometimes occurs.

There certainly will be social settings in which technologically-aided norm enforcement is undesirable. I am thinking, in particular, of those settings in which conformity is bad and majoritarian norms are invasive. For example, we would recoil at the thought of “How’s My Speech?” being used to sanction political dissidents. When political dissent is at issue, society has long recognized the value in letting unpopular or unfashionable arguments be voiced. More broadly, majoritarian sentiment may be too quick to condemn intellectual, political, or artistic innovation. As a result, insecure geniuses whose ideas might have ultimately prevailed if protected by anonymity will be too discouraged by the high costs of nonconformism. For that reason, using “How’s My Art?” to award, say, National Endowment for the Arts grants could inappropriately reward those artists whose work is not artistically excellent but coincides with the aesthetic preferences of the median voter. Similarly, majoritarian norms may unduly reflect stubborn biases, like racial, gender, or religious animus, and society should resist relying heavily on “How’s My Driving?” for Everything approaches in these settings.

In a different vein, we must recognize the problems that would arise if we applied a “How’s My Driving?” approach to matters about which preferences are very idiosyncratic. For example, such technologies could take some of the risk out of blind dates, [\[FN229\]](#) but romantic *1761 tastes are certainly variable enough to warrant skepticism about the approach, and hurt feelings may prompt people to leave inaccurate feedback following instances of unreciprocated attraction. [\[FN230\]](#) Indeed, when the very high emotional stakes associated with dating are combined with highly individualized preferences, the false feedback problem becomes quite daunting. In other settings, there is simply no consensus about what the existing social norms are. Here, feedback will be noisy and unhelpful, at least until preferences crystallize and converge.

There will be other settings in which conformity is relatively uncontroversial and median voter instincts are sensible, but where the costs of using HMD technologies to police misconduct exceed the benefits. Take pedestrian activity in public spaces. Interactions among pedestrians on a sidewalk, at a block party, or outside a concert venue are usually reasonably orderly for a variety of reasons: People interact with others face-to-face, people may be accompanied by a few acquaintances amidst the crowd, people may fear police intervention or mob justice if they act boorishly, and many people have internalized norms that cause them to behave in a considerate fashion. In a science fiction world, we can imagine a nongovernmental “How’s My Walking?” system that eliminates anonymity in public spaces. [\[FN231\]](#) Were we to hand people remote controls and let them play a reputational version of laser tag, where their point totals would be posted on the Internet for employers, parents, blind dates, and parole officers to see, public misconduct would be deterred substantially. This regime would be one in which obscurity in public spaces disappeared entirely, but at what cost?

It may well be that in many “How’s My Walking?” settings, people would resent the disappearance of practical anonymity in public spaces. Many people take such obscurity for granted, but its loss is something new celebrities frequently bemoan. Obscurity in public permits adolescents and adults to experiment with their identities*1762 in a way that enables them to discover who they are and what they enjoy doing. [\[FN232\]](#) It also allows people to forego having to look and act their best, and to avoid the tension associated with constantly being judged and rated by their peers. When people are operating potentially deadly motor

vehicles, this loss of obscurity seems justified, but if individuals are just walking to the corner store for a gallon of milk or sipping a cup of coffee at Starbucks, an omnipresent regime of anonymous feedback might begin to resemble a prison. In short, government efforts to encourage a “How's My Walking?” regime only seem appropriate in those environments where public misconduct has reached crisis levels. We might even imagine situations in which it would be appropriate for the government to prevent a privately run “How's My Walking?” regime from coming into existence, based on some of the concerns identified above.

In looking for successful applications for the “How's My Driving?” approach, then, we should seek out contexts in which conformity is unproblematic, median voter judgments are informative, a broad social consensus exists regarding appropriate behavior, and the benefits of reputation tracking exceed the costs. We are, in short, looking for environments in which the prevalent social norms are universal and efficient.

For illustrative purposes, we can begin with a context where anonymity is not particularly problematic, but where implementing a reputation-tracking system would be easy enough that an intervention is plausibly worthwhile. The vast majority of hotel guests are perfectly cooperative, desiring little more than a clean room and a good night's sleep. But most readers probably have had the misfortune to be assigned a room adjacent to an inconsiderate outlier. Many people, being essentially nonconfrontational, simply endure the noise. Others bang on walls or ask the front desk employees to intervene, sometimes with minimal success. The problem, of course, is that hotels cannot identify the noisy patrons in advance, and customers are given no opportunities to choose their neighbors. It would be easy to imagine a straightforward “How's My Neighboring?” program for hotel guests, which would enable hotels to exclude the noisy (or confine them to a particularly well-insulated portion of the hotel) and allow everyone else to enjoy a decent night's sleep. The idea is to make reputations for noisiness transportable across hotels. [\[FN233\]](#)

***1763** Other, relatively uncontroversial, extensions of the approach would include creating multijurisdictional feedback platforms for vendors at flea markets or farmers' markets, or the “ticket scalpers” who stand outside sports stadiums. Indeed, these kinds of programs might be useful inside stadiums as well. Shortly before this Article went to press, the Cincinnati Bengals football team announced the launch of “513-381-JERK,” a telephone number that spectators could call to report unruly fan behavior. [\[FN234\]](#) Security officials could use the stadium's thirty-eight video cameras to conduct surveillance of spectators whose misconduct was reported to the hotline, removing or even arresting fans whose behavior crossed the line. [\[FN235\]](#) Given the problems associated with soccer hooliganism around the globe, the innovation deserves serious attention.

More controversially, we can imagine the application of HMDFE variations to public policy issues large (facilitating the accurate reporting of parental abuse and neglect of their children) and small (permitting the sanctioning of neighbors who leave their trash cans at the curbside for too long after pickup day). Without exploring all these variations, we should turn our attention to three settings in which these reputation systems seem particularly promising.

The first is military operations. Increasingly, members of the military are called upon to engage in peacekeeping operations where aggravating the local population is detrimental to mission objectives. Law-abiding Iraqis are con-

stantly witnessing some American soldiers behaving well and a few behaving quite badly. Yet there is no systematic effort to harness this information in a way that might improve military training and conduct. Now, there is an obvious challenge here. We do not want insurgents rating GIs, because they will probably phone in complaints about the most competent soldiers. But if the peaceful population sufficiently outnumbers the insurgent population, and if reporting is made easy enough, this problem can be solved. And creating such a visible form of accountability may well create extraordinary goodwill among the occupied.

The same arguments hold true in the context of police officers; therefore, “How’s My Policing?” programs might be promising. [\[FN236\]](#) *1764 Again, we do not want criminals rating the police, but if we could encourage law-abiding citizens to lodge compliments or complaints about particular officers, the benefits would be substantial. Opportunities to report misconduct exist in the present system: A citizen can jot down a badge number and call a precinct or write a letter to a police commissioner. Some jurisdictions, like New York City, have developed Civilian Complaint Review Boards (CCRBs) that investigate each such complaint and take action where appropriate. [\[FN237\]](#) These institutions are useful, but the costs of using these formal channels are rather high. A complaining citizen often must be interviewed and divulge his or her identity to the officer in question. Cities that are interested in genuine officer accountability might consider supplementing CCRBs with “How’s My Policing?” programs that generate more citizen feedback but ascribe far less significance to any particular piece of feedback. With “How’s My Policing?” programs, police supervisors would be looking for trends in the feedback data, rather than waiting for one aggrieved citizen to spend significant time and energy establishing the veracity of an officer misconduct claim.

There is a third type of environment in which reputation-tracking and feedback systems may be particularly advantageous; it is an environment that is hard to describe, however, because it does not yet exist. As discussed above, “How’s My Driving?” for Everything may prove successful when a well-developed set of norms already exists. But recall the preceding discussion of how HMD programs might also permit us to create a “traffic code” that can be updated to reflect real-time changes in drivers’ preferences and behaviors. [\[FN238\]](#)

On this model, we can use “How’s My Driving?” for Everything to create hyperdemocratic rules in new environments characterized by loose-knit interactions. Surveying the past decade or so, scores of new environments like this have sprouted up, mostly in cyberspace: Internet chat rooms, online poker tournaments, peer-to-peer file swapping networks, massive multiuser online games, craigslist.org, “comments” sections on blogs, and many more. The designers of these new environments often have to guess about what types of rules to impose on their users, and mistakes will be inevitable.

Technologies that allow anonymous users to rate each other’s behavior and explain the basis for their high or low ratings will often be a highly beneficial means of giving users the types of rules they want and galvanizing user opinion around desirable innovations. *1765 Nobody knows what new loose-knit environments will emerge in the coming decades. But we have enough information to suspect that in the new environments that do emerge, “How’s My Driving?” for Everything stands poised to help create and enforce the norms that will regulate behavior therein.