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## *ESSAY*

### THE FUTURE IS ALMOST HERE: INACTION IS ACTUALLY MISTAKEN ACTION

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Professor Ryan Calo has written a response to our article appearing in the current issue of the Virginia Law Review, *Automated Vehicles and Manufacturer Responsibility for Accidents: A New Legal Regime for a New Era*,<sup>1</sup> in which we develop the proposition that the United States is on the verge of a new era in transportation, requiring a new legal regime. As many commentators have noted, over the coming decades, there will be a revolution in driving, as manually-driven cars are replaced by automated vehicles (AVs).<sup>2</sup> There will then be a radically new world of auto accidents: most accidents will be caused by cars, not by drivers.

In a world of accidents dominated by AVs, current tort doctrine, in our view, will be anachronistic and obsolete. We present a proposal for a more effective system, adopting strict manufacturer responsibility for auto accidents. We call this system Manufacturer Enterprise Responsibility, or “MER.” In describing and developing our proposal for MER, we present a detailed, extensively analyzed approach that would promote deterrence and compensation more effectively than continued reliance on tort in the

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<sup>1</sup> Kenneth S. Abraham & Robert L. Rabin, *Automated Vehicles and Manufacturer Responsibility for Accidents: A New Legal Regime for a New Era*, 105 Va. L. Rev. 127 (2019).

<sup>2</sup> See *id.* at 129–30 nn. 4–6 (collecting sources).

coming world of auto accidents.<sup>3</sup> MER would be a manufacturer-financed, strict responsibility bodily injury compensation system, administered by a fund created through assessments levied on AV manufacturers.

Professor Calo does not disagree with the framework of our proposal—which he describes as “sensible and well thought out”<sup>4</sup>—but takes a different tack: arguing that legal scholarship, such as our proposal, has limited capacity to anticipate the future of unfolding law and technology. Here, we respond to his main points.

We agree with Professor Calo’s opening supposition that proposing policymaking about issues that may take decades to become ripe may well be like imagining, in the 1950s, what it would be like to commute to Mars. But this analogy is seriously misleading, because AVs are already on the roads being tested. It is as if we were already traveling to Mars on an experimental basis, with routine trips back and forth being planned for the near future. We cannot afford to wait and see what the future brings over a period of decades; a world in which there are privately owned AVs being operated on highways and city streets is just over the horizon. The failure to do something about that is not the equivalent of keeping our policymaking powder dry. Similarly, Professor Calo’s caution that AVs represent a “qualitatively distinct affordance”<sup>5</sup>—both in vehicle design (absence of steering wheels, gas and brake pedals, and so on), and traffic patterns (of commuting and congestion)—has no bearing on the fact that vehicular injuries will still occur, even if in reduced number, which will need to be addressed by accident law.

In this regard, the current liability regime will apply to AVs unless affirmative steps are taken to adopt a different regime. Given the distinct issues and problems that accidents involving AVs will pose, products liability law will be making a “sweeping intervention[,]”<sup>6</sup> to reference Professor Calo’s cautionary note, into the world of AV accidents, whether we like it or not. The question is whether we simply let that happen even though we can predict that passively allowing this intervention will have negative consequences, or we devise an intervention that will have more positive consequences than watching as the current system is less and less

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<sup>3</sup> Id. at 147–64.

<sup>4</sup> Ryan Calo, *Commuting to Mars: A Response to Professors Abraham & Rabin*, 105 Va. L. Rev. Online 84, 84 (2019).

<sup>5</sup> Id. at 86.

<sup>6</sup> Id. at 84.

capable of handling AV accidents. This leaves us with two options. We could let the transition take place and watch our current system become less and less capable of handling the new regime, or we can devise an intervention that addresses the challenges we will face. As our article indicates, the serious difficulties posed at present in design defects cases will be greatly exacerbated in assigning liability in conventional products liability terms in the context of the esoterica of safety-generating algorithms and machine learning.<sup>7</sup>

It may be, as Professor Calo imagines, that Google and Uber, rather than auto manufacturers, will become the central players in developing AVs. But some entity will still have to make the vehicles, and they will consist of both software developed by the Googles and Ubers of this world and hardware made by the vehicle manufacturers. Google and Uber are not likely to be manufacturing brakes, tires, and air bags. If Google and Uber are responsible only for accidents caused by software, and Ford, GM, and Toyota are solely responsible for accidents caused by hardware, retaining conventional products liability will generate the very litigation nightmare that MER is designed to avoid.<sup>8</sup> Under our approach, if it turns out that Google and Uber rather than Ford and Toyota should be responsible for all accidents “arising out of the operation of HAVs,”<sup>9</sup> then our proposal can be transposed so that Google and Uber are responsible for contributions to the MER fund.<sup>10</sup> The basic rationale for our proposal will still be applicable.

Professor Calo also is concerned that, at some point in the unforeseeable future, individuals will not own AVs. Instead, third parties such as Google, Uber, or cities will own them. He seems to think that our assumption that “individuals will own and insure their own cars,”<sup>11</sup> if incorrect, will undermine our proposal—for example, because we deliberately omit protection against property damage from MER. But so what? Nothing turns on this. Ride-sharing owners would also presumably have to decide whether to buy property (collision and comprehensive)

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<sup>7</sup> Abraham & Rabin, *supra* note 1, at 139–45.

<sup>8</sup> An alleged braking failure causing injury, for example, might very well raise issues of joint responsibility of the software and hardware systems.

<sup>9</sup> Abraham & Rabin, *supra* note 1, at 132.

<sup>10</sup> This is likely to be a relatively objective determination of which entity has dominant responsibility for manufacture of the vehicle.

<sup>11</sup> Calo, *supra* note 4, at 87.

insurance or to self-insure. Whether these entities or individuals have to make that decision would not change anything of consequence.

He also comments that the “incentive structure of an app-based technology company that both owns and operates its vehicles differs rather markedly from that of a car manufacturer that sells vehicles to people.”<sup>12</sup> Perhaps, but in what relevant respects? No one thinks that products liability law generates different incentives for conglomerates than for single-product companies. Why should there be a difference in this regard between technology companies and manufacturers? If there is an insight here, it eludes us.

The fact that “dramatically distinct modalities of transportation”<sup>13</sup> could arise once there are a lot of AVs on the roads leads Professor Calo to argue against pre-empting state experimentation with a single national approach. We would concur in a qualified fashion. This concern is why MER would not be triggered until AVs constitute twenty-five percent of all registered vehicles. That condition is meant to provide ample time for social, cultural, and technological evolution to tell us what “transportation modalities” actually have developed. But there is a deeper point to be made here. If the world of tomorrow features flying drones and/or comprehensive mass transportation, that will be soon enough to rethink liability law. Should we remain frozen until then?

Relatedly, Professor Calo asks what assumptions we are making about the trajectory of law and technology or its social impact. In fact, we are making no assumptions. Why should we be addressing whether a MER-type system would apply to harms from surgical robots? Having said that, we agree that the theory underlying MER may extend “well beyond”<sup>14</sup> driverless cars. The theory could extend to other kinds of accidents as well. It might even be nice (though it might also be unwise, or even dangerous) to have a single, unified approach to compensation and liability for accidental physical harm. New Zealand has done that, with mixed results.<sup>15</sup> In the United States we have never done it. As a practical matter, it is impossible.

In the United States we almost always address one major social policy concern at a time, instead of trying to address all our problems at once.

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<sup>12</sup> *Id.* at 87.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.* at 88.

<sup>15</sup> For discussion, see Peter H. Schuck, *Tort Reform, Kiwi Style*, 27 *Yale L. & Pol’y Rev.* 187 (2008).

Workers' compensation is illustrative, even though the theory underlying workers' compensation might also have applied to other settings. Similarly, auto no-fault compensation is grounded in the motor vehicle context. It addresses the cluster of issues associated with auto accidents, although some of these issues also arose, and still arise, in connection with injuries caused by defective products and harmful environmental exposures.

In the last few decades we have adopted a number of targeted compensation funds—the childhood vaccine-injury fund,<sup>16</sup> the 9/11 victim compensation fund,<sup>17</sup> and the birth-related neurological injury funds in Florida<sup>18</sup> and Virginia.<sup>19</sup> The principles underlying these approaches are not entirely consistent either, as one of us has repeatedly noted.<sup>20</sup> Since we are not going to have consistency across all of our liability and compensation regimes, deferring to lack of consistency—along with inability to predict long-term future scenarios of accident-generating technology—is a prescription for paralysis. Consequently, if in the future we need to think about applying MER to drone-related accidents, or robots performing surgery, we can face those issues as the need arises.

In short, because doing nothing about the law governing accidents involving AVs would actually constitute mistaken action, we should do the sensible thing. In our view, MER is exactly that.

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<sup>16</sup> 42 U.S.C. §§ 300aa-1–34 (2012).

<sup>17</sup> 49 U.S.C. § 40101 (2012).

<sup>18</sup> Fla. Stat. Ann. §§ 766.301–16 (West 2018).

<sup>19</sup> Va. Code. Ann. §§ 38.2-5000–21 (West 2018).

<sup>20</sup> See, e.g., Robert L. Rabin, *The September 11th Victim Compensation Fund: A Circumscribed Response or an Auspicious Model*, 53 DePaul L. Rev. 769 (2003).