Autolaw 3.0

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Law is messy but important

Automated vehicles are probably legal

Automakers will probably bear a greater share of crash costs

Data will definitely lead to both problems and solutions
This won’t be pretty
Law is infrastructure

- Increase certainty
- Influence behavior
- Manage relationships
## Managing relationships

<table>
<thead>
<tr>
<th></th>
<th>Road user</th>
<th>Automaker</th>
<th>Insurer</th>
<th>Government</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Road user</strong></td>
<td>Rules of road, Tort law</td>
<td>Warranties, Tort law, Privacy</td>
<td>Vehicle policy</td>
<td>Gas tax, Rules of road, Privacy</td>
</tr>
<tr>
<td><strong>Automaker</strong></td>
<td></td>
<td>Indemnification, Intellec. prop.</td>
<td>Subrogation</td>
<td>FMVSS, Privacy</td>
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<tr>
<td><strong>Insurer</strong></td>
<td></td>
<td></td>
<td>Reinsurance</td>
<td>Insur. law</td>
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<tr>
<td><strong>Government</strong></td>
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<td>MAP-21</td>
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</tbody>
</table>
Managing *government* relationships

- State governments largely regulate drivers
- US government largely regulates vehicles
- But what if the vehicle *is* the driver?

<table>
<thead>
<tr>
<th>US Government</th>
<th>Infrastructure</th>
<th>Vehicle</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Design standards</td>
<td>FMVSS</td>
<td>Road traffic treaty</td>
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<td></td>
<td>Radio spectrum</td>
<td>Preemption</td>
<td>Interstate trucking</td>
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<td></td>
<td>Highway trust fund</td>
<td></td>
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<tr>
<td>State Governments</td>
<td>Construction</td>
<td>Registration</td>
<td>Licensing</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>Insurance</td>
<td>Vehicle codes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tort law</td>
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</tr>
</tbody>
</table>
## Rough hierarchy of relevant law

<table>
<thead>
<tr>
<th>Level</th>
<th>Law</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US constitution</strong></td>
<td>• Supremacy Clause / Commerce Clause</td>
</tr>
<tr>
<td><strong>US statutes and treaties</strong></td>
<td>• 1949 Convention on Road Traffic (Geneva)</td>
</tr>
<tr>
<td><strong>US rules/regulations</strong></td>
<td>• Federal Motor Vehicle Safety Standards</td>
</tr>
<tr>
<td><strong>State constitutions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>State statutes</strong></td>
<td>• State vehicle codes (rules of the road)</td>
</tr>
<tr>
<td><strong>State rules/regulations</strong></td>
<td>• Nevada DMV’s autonomous driving regulation</td>
</tr>
<tr>
<td><strong>Common law</strong></td>
<td>• Background rules for tort law</td>
</tr>
<tr>
<td><strong>Private norms/standards</strong></td>
<td>• ISO / SAE / ANSI</td>
</tr>
</tbody>
</table>
Nevada and Florida are the only states to expressly regulate “autonomous vehicles”.

This does NOT mean that automated vehicles are illegal elsewhere.
Presumption of legality
Complications, but not prohibitions

- How might NHTSA act preemptively and reactively to these technologies?
- How might a court interpret the Geneva Convention’s requirement that every vehicle have a driver able to control it?
- How might courts and agencies apply existing state vehicle law?
Application of existing law

- In every state, the precise application of existing law is unclear, because that law assumes that humans drive vehicles using real-time human judgment.

- California Vehicle Code
  - 21700. **The driver** of a motor vehicle shall not follow another vehicle more closely than is **reasonable and prudent**.
  - 22350. **No person shall drive** a vehicle upon a highway at a speed greater than is **reasonable or prudent**.
  - 23103. **A person who drives** a vehicle upon a highway in **willful or wanton disregard for the safety** of persons or property is guilty of reckless driving.
What is “reasonable and prudent”?

- As good as:
  - A perfect human driver?
  - An average human driver?
  - A computer plus a human?

- Measured through:
  - Field testing?
  - Simulation?
  - After a crash?

- One key: Standards at the international, national, state, and industry levels
I may be *civilly liable* for injuries that I cause, even if I am acting lawfully.
Liability is NOT binary

Owner?  Dealer?
Operator?  Victim?
Manufacturer?  Supplier?
Data provider?  Designer?
Employer?  Facility operator?
Service provider?
Automakers will face liability…

- Automated vehicles won’t can’t be perfect: Design decisions and omissions will cause, exacerbate, and fail to prevent injuries
- If these choices are unreasonable, companies will be liable for the resulting injuries
- Even if these choices are reasonable, companies may suffer reputational losses
...and the costs are uncertain

- In theory, companies can charge more for their products and services to cover these expected liability and reputational losses.
- The problem (for companies) is that predicting these costs is difficult.
- The problem (for society) is that this uncertainty means consumers may pay too much or wait too long.
Managing this uncertainty

- How can regulators, automakers, and insurers better understand the *technical, legal, and reputational risks*?
- What lessons can be learned from airbags and electronic stability control litigation?
- What are the legal aspects of remote software updates and virtual recalls?
Data as problem and solution

- What data might be produced or required?
  - Assume the “collection” of any and all data
- Who will own and manage those data?
- How will those data be used by
  - Governments?
  - Companies?
  - Litigants?
- How will those data be abused?
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