

# REGULATING AUTONOMOUS CARS: A TECHNOLOGY ORIENTED LEGAL APPROACH

Gadi Perl

מרכז המחקר להגנת הסייבר  
CYBER SECURITY RESEARCH CENTER



## WHAT ARE AUTONOMOUS CARS?

- Not “Knight Rider”, Not even Herby.
- An aggregation of technologies:
  - Sophisticated sensors.
  - AI Based - Picture recognition and Decision Tree algorithms.
  - Connectivity.

## AUTONOMOUS CARS BECOME A “CURRENT” ISSUE

- 18 March Tempe Arizona accident reveals gaps in current regulatory regime:
  - Liability is unclear (Identity, Standards, applicable rules).
  - Privacy is unclear

## CURRENT REGULATION IS INSUFFICIENT

- **No** Federal regulation - NHTSA recommendations are vague.
- State regulation is a 3 page executive order (2018-04):
  - The vehicle must achieve a reasonably safe state...
  - Complying with all Arizona traffic and safety laws.
  - Meeting all applicable certificate... and insurance requirements.
  - Instructs the Departments of Public Safety to work with other relevant law enforcement agencies to develop protocols on how first responders shall interact with a fully autonomous vehicle in emergency and traffic enforcement situations.
  - In addition, the vehicle must meet all applicable certificate, title registration, and licensing and insurance requirements.

## CURRENT REGULATION IS INSUFFICIENT

- **No** clear rules of liability - no legal precedent, no directly applicable laws.
- Privacy laws are not clearly applicable.

## ACADEMIC DISCOURSE

- Various articles about different topics - privacy, cybersecurity, liability, ethics etc.
  - No complete regulation scheme.
  - Do not provide a holistic solution.
  - Applicable to current technologies.
  - Theories do not necessarily coexist.

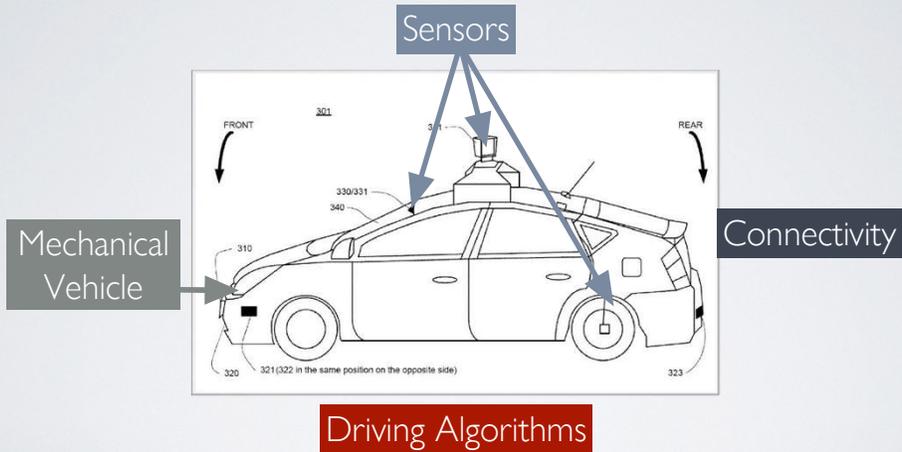
## **REGULATION BRINGS TRUST**

- The societal value of Autonomous Vehicles is clear (lives, infrastructure, resources, medicine, equality).
- Public acceptance is dependent on trust.
- Regulation is required for trust.

## REGULATING THE TECHNOLOGIES

- Dividing the end product into the constructing technologies.
- Defining each technology up to the level required for regulation.
- Identifying the legal issues relevant for each technology.
- Addressing the legal issues for each technology separately.

# DEFINING THE “SELF DRIVING VEHICLE”



## IDENTIFYING THE LEGAL ISSUES

- **Sensors:**
  - Privacy.
  - Cybersecurity.
- **Algorithms:**
  - Liability.
  - Ethics.
  - Risk Management.
- **Connectivity:**
  - Cybersecurity.
  - Collective action.
  - Antitrust.

## REGULATING SENSORS

- A legal problem with precedents:
  - CCTV in the UK.
  - Google Street View (legislation + rulings).
  - GPS Tracking - US Supreme Court.

## REGULATING SENSORS

- Identifiable Issues:
  - Location of Cameras.
  - Types of cameras and amount of usage.
  - Data retention.
  - Security and Cybersecurity.

Thank You