ACCESS TO DIGITAL CAR MAINTENANCE DATA AND CONSUMER WELFARE

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Competition with digital data

- Connected Car = Internet-of-Things device
- Car data = driver’s personal data: GDPR applies

- Distinction between:
  - GPS & media data: many substitute sources
  - Mechanical data: car = unique source

- Applications: maintenance, insurance, fuel = most important cost items

- The issue: access to car data affects maintenance services markets
The pre-digital automotive market

- Car manufacturers have a monopolistic network of official dealers
- Endorsed by the Block Exemption Regulation (EU 461/2010): efficiency gains

- Mandatory access to maintenance data to ensure competition between official dealers and independent services (Type Approval Regulation, EU 858/2018)
  - Access to technical manuals and spare parts
  - Access to mechanical data via On-Board Diagnostics (OBD) socket: in garage only.

- Result: two-tier maintenance market structure:
  - High-priced official dealers: monopolistic for cars < 2 years
  - Lower-priced independent services: larger market share for older cars
  - Substantial variation in prices and market shares across EU MS
The digitally connected car

- Mechanical data transmitted to car manufacturer central server = monopoly access
  - Read access: monitor mechanical status of the car
  - Write access: send maintenance messages to driver

- Car manufacturers maximize their revenue with the data:
  - Increase market share of official dealers: behavioural messages to drivers
  - Sell to competing maintenance services? Only with price discrimination
  - Sell to non-competing services: insurance, fleet management (or foreclose?)
  - Retain privileged market overview by monitoring data traffic

- Not foreseen in existing regulations (BER and TAR)

- How does this affect consumer welfare?
- Do we need new regulation to open access to data or can markets deal with this?
Market responses to car manufacturer’s data monopoly

• Alternative data gateways
  – Telematics functions added to the in-car OBD socket
  – "neutral" third-party servers
  – Replace central server with manufacturer’s On-Board Platform
  – Consumer media on-board platforms (Google, Apple)

• How effective are they:
  – Do they stimulate competition in aftermarket services?
  – Do they generate data-driven efficiency gains?

• Are these market forces sufficiently strong ("Chicago critique")
• Or does this require regulatory intervention?
Telematics added to the in-car OBD socket

- OBD plug-in dongle connects car to external services platform
- High market entry costs for drivers (hardware and/or subscription), reduces network effects
- Manufacturers are reducing access to the OBD, citing security concerns
- Result: fragmented market, business models do not scale
- Used for specific applications only (fleet management, Pay-as-You-Drive insurance) where network effects are not important
“Neutral" third-party server

• Central server is managed by third-party, not by manufacturer
  – Reduces manufacturers' market monitoring capabilities (commercial confidentiality)
  – Efficiency gains: economies of scale and scope in data aggregation across car brands

• Ex.: Otonomo, Caruso

• But:
  – Very dependent on data delivery conditions set by manufacturers
  – No true multi-sided market, weak network effects
The manufacturer's On-Board Platform

- On-board operating system connects to car data and enables real-time transmission
- Very dependent on manufacturer's access conditions and supervision of installed apps
- Manufacturer remains in control
Consumer media on-board platforms

Advantages:
• Consumers: familiarity, seamless connectivity home/mobile
• Strong economies of scope: data aggregation across devices, car brands, consumer services
• Write access to drivers via in-car screen
• Data format standardization

Disadvantages:
• Manufacturers’ reluctance to give access to mechanical data, erodes their data monopoly and may undermine their official dealer network
• Replacing a small with a big monopoly? Ex.: ENI Italy case
Do we need additional (car) portability regulation?

- Portability under Art 20 GDPR is not very operational:
  - No real-time continuous portability
  - No standardized data formats for interoperability
  - Portability does not cover write access to driver interface

- Industry self-regulation?
  - Poor experience in automotive (CITS in 2016)
  - No incentives to collaborate between manufacturers and aftermarket services
  - Market-driven standards remain weak (Extended Vehicle ISO)
  - Consumer platform driven portability forces are strong (Android, Apple)

- Other data portability options:
  - Sectoral: add provisions for read and write access in BER/TAR
  - Horizontal portability regulation to complement GDPR

- European Commission automotive data governance "Recommendation"?