



Connected Vehicles Address Multiple Areas of Automotive Innovation

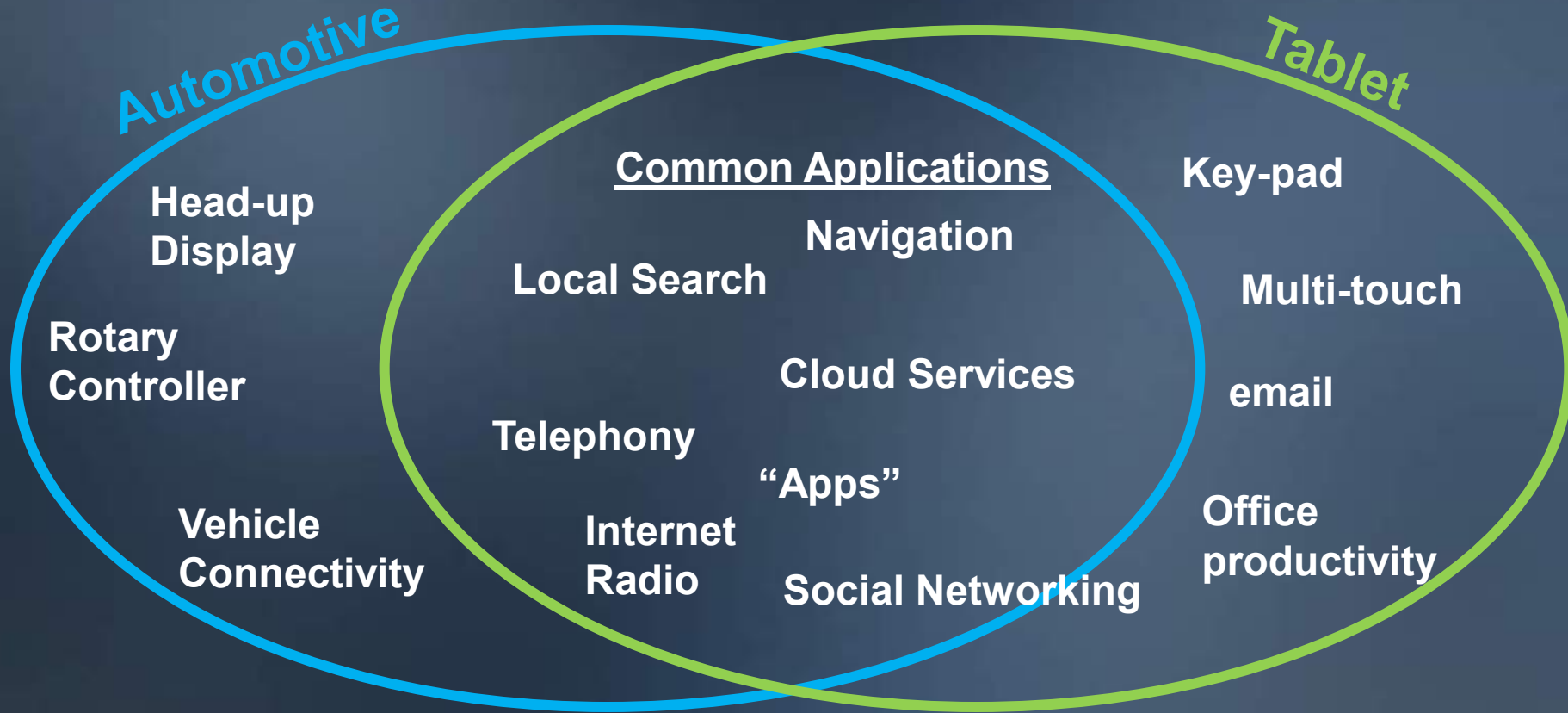


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Agenda

- Cars vs Tablet Computers
- Delivering Content to the Car
- Connections and Safety
- Connected Vehicles: Beyond Content
- Summary and Comments

Infotainment vs. Tablet/Smartphone



Where should the applications run ?

Delivering Content to the Car

► Embedded

- Available today, platform dependent, application and connectivity embedded in the car



► Tethering

- Application is in the car
- Phone provides connection to the cloud
- Connected via BT or USB



► Terminal

- Application resides in the phone
- Display in the car replicates phone
- Connected via BT or USB



Decreasing Control

Control Points: who owns the consumer?

Connected Services

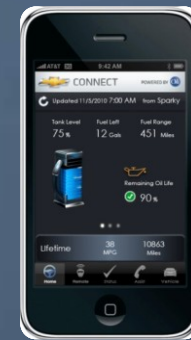
▶ Car / Telematics / Embedded Applications

- Behaves like a car, not a consumer device



▶ Applications brought into the vehicle

- Smart phones, PMP, etc
- Integrated into the automotive experience

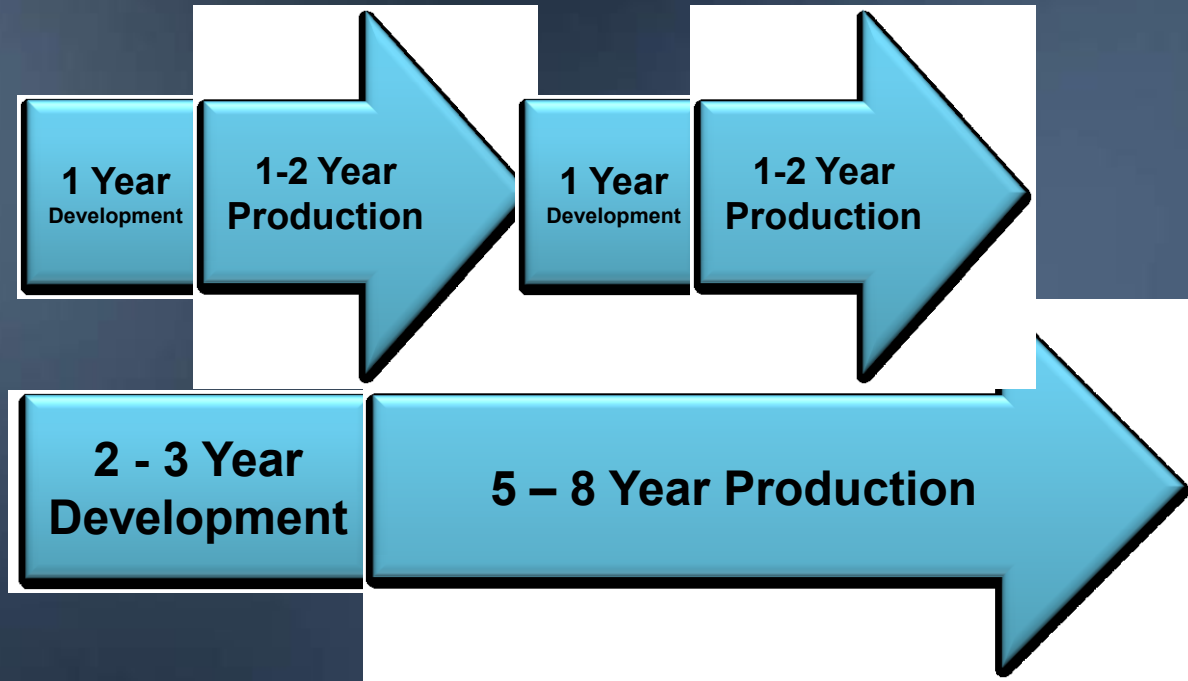


▶ Cloud Applications

- Browser or connected logic in the car
- Application resides in the 'cloud'



The Automotive Electronics Paradox



Customer Expectations:

Consumer Electronic Fun and Features

Automotive Electronics Quality and Safety

Customer Expects A Car to Behave Like Their Car, Not Their PC

Rear Seat Systems

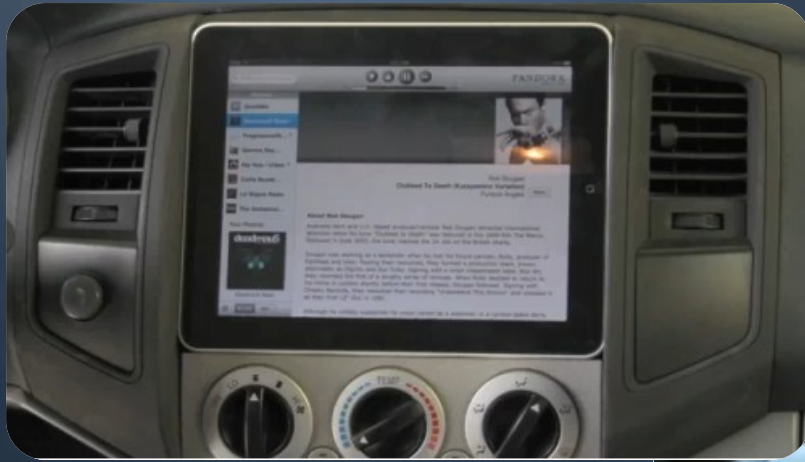
Rear Seat Systems Changing Quickly



\$600 Tablet vs. \$2K rear seat system

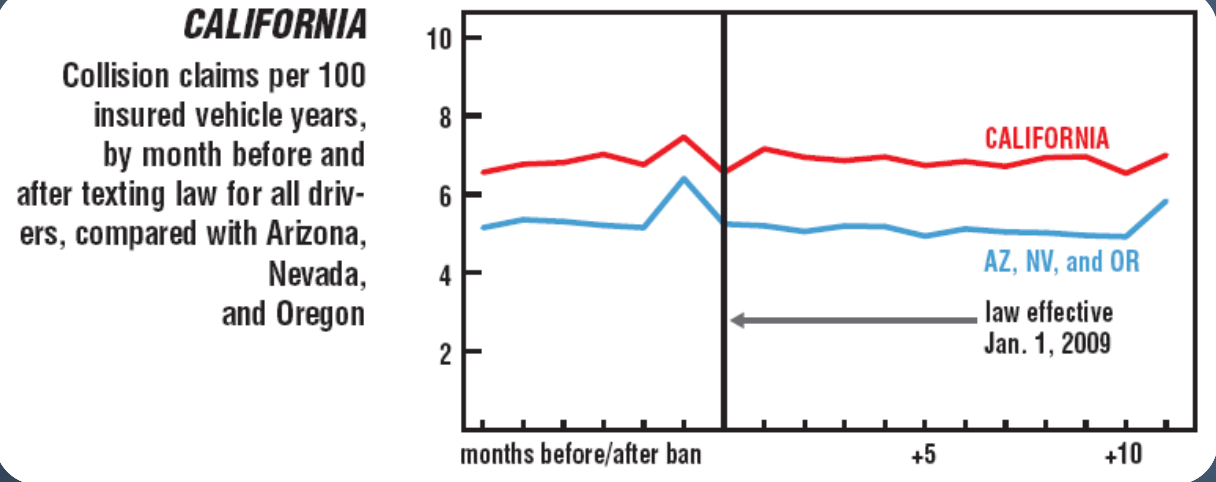
Car as an Wi-Fi access point

The Automotive Industry Must Maintain Control of the HMI



Saving the Driver From Themselves

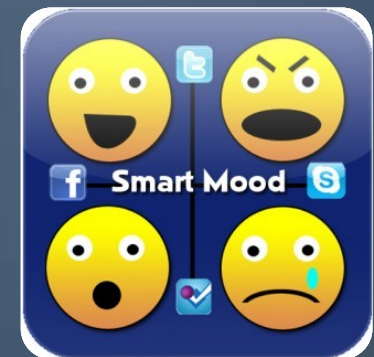
TXTing ban does not reduce accident rates, and in some cases it increases



The car has to become the filter, managing safe and unsafe activities

Example: American Journey 2.0

- Take potentially unsafe activities and embed them in the car
- Communications and exchange of information with other cars in a caravan
- Information
 - Bathroom break
 - Police ahead
 - Need food
- Automatic car 'mood tweet'
- Car Information
 - Fuel tank level
 - Maintenance information
 - Infotainment
- What's playing



The car is filtering communication for what is safe

Summary

- Connected vehicles address multiple areas of automotive innovation
- Safety is key, we own the protection of the occupant
- Bi-directional, high speed connectivity is the basis for yet undefined applications
- What we don't see coming!

