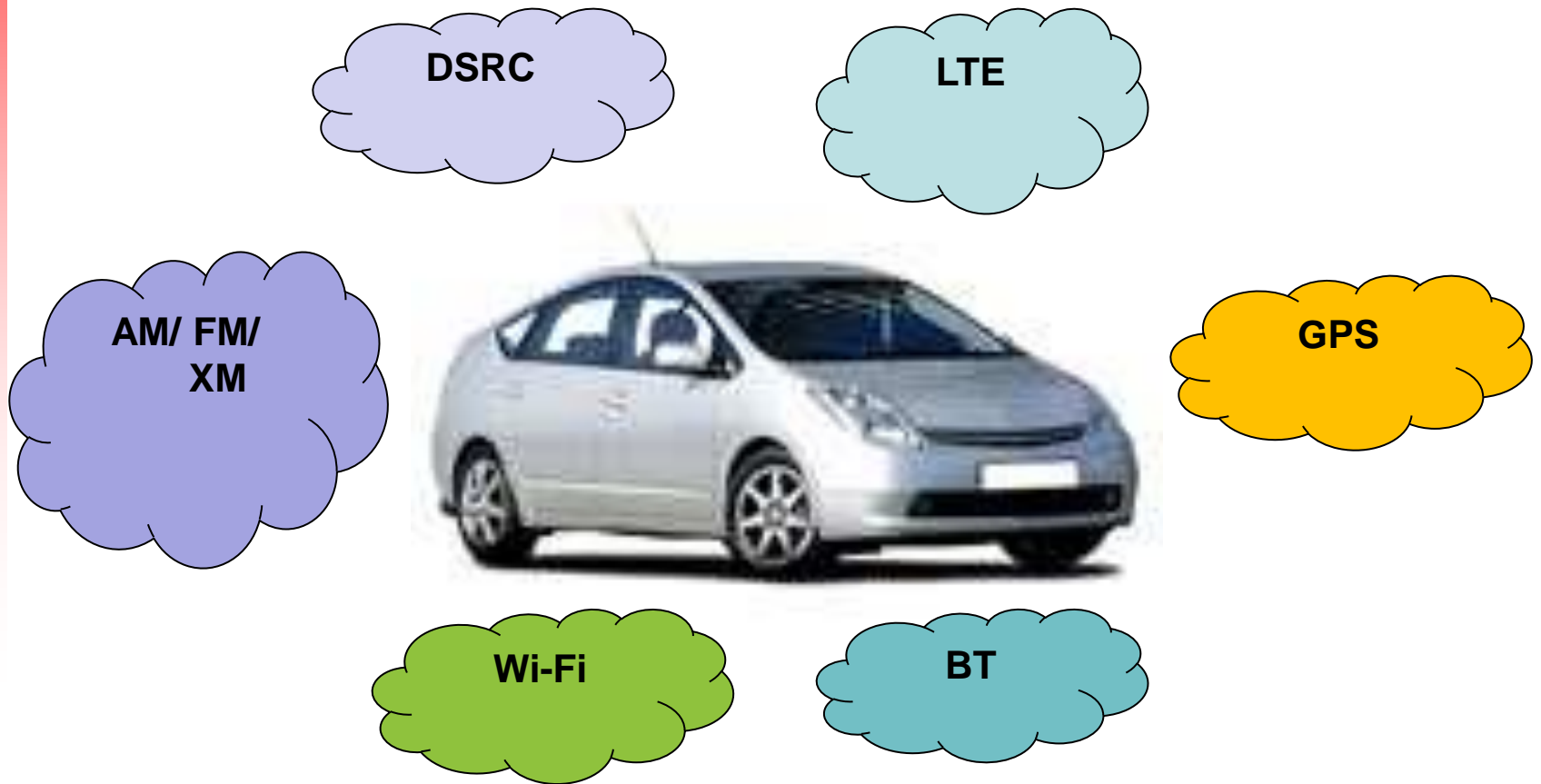


The Road to Automated Driving: bridging the auto and tech cultures

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IEEE Workshop on Autonomous/Connected Vehicles
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Connected Car



- **Connecting with many things, in and out of the car**
- **New modalities being added all the time**

Automated/Autonomous



+

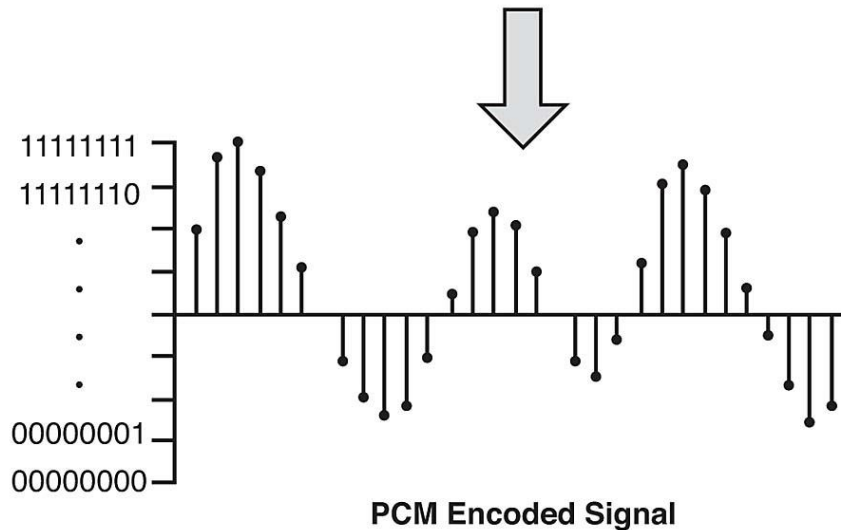
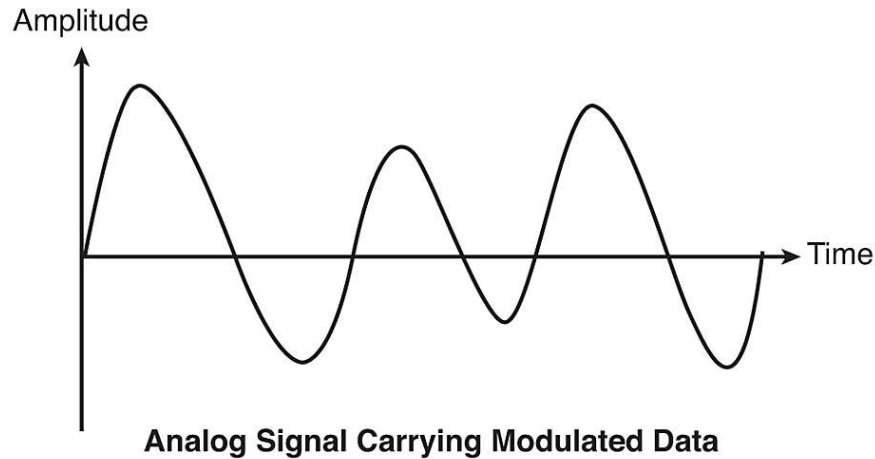


= Cooperative Automated Driving

Divestiture: 1984



Digital Telephony Wave



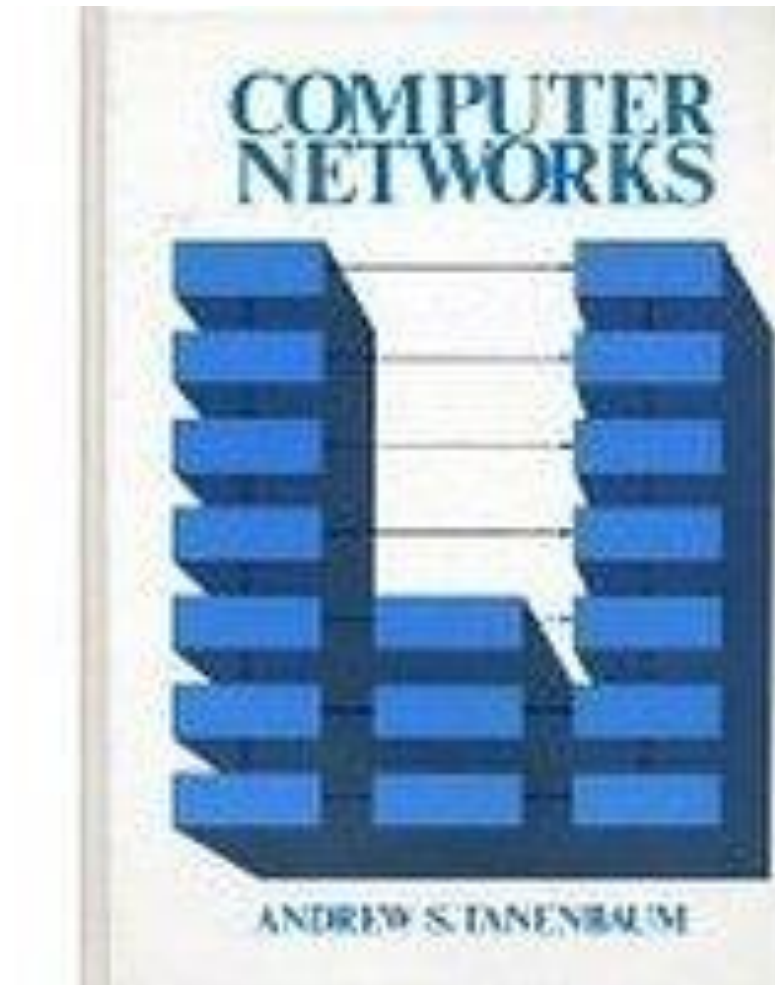
Riding the wave



The bigger wave

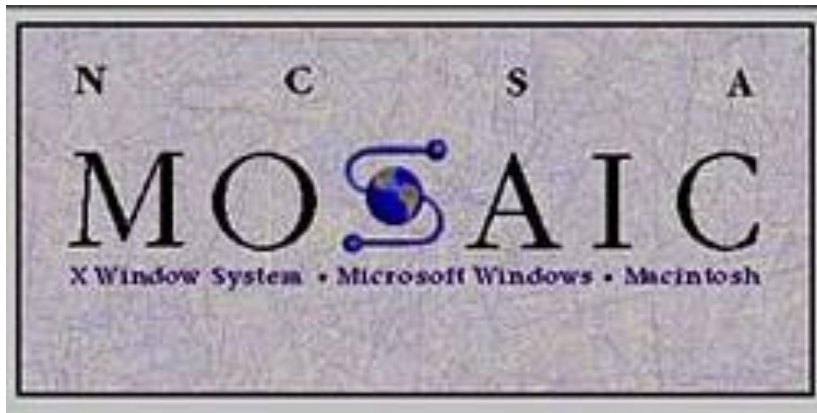


Networks



Early signs

FTP



TCP/IP

Parallels

- Incumbent disrupted by fundamentally changing how we use the technology
- (D)ARPA backing, heavy academic interest
- Incumbent an anchor of US economy, an institution
- Challenger coming from Silicon Valley
- Lots and lots of HYPE
- Benefits go beyond the obvious

Benefits of Automated Driving

- Quality of life for elderly, parents, disabled
- Change transportation labor
- Save time
- Help environment
- Change business and usage of vehicles
- Change vehicle itself

Differences

- Driving is safety-of life
- Vehicles are heavily regulated
 - Both of these pose significant barriers to entry
- Car companies are catching the wave

Lessons

- Auto industry:
 - Don't rest on laurels
 - Disruption CAN happen
 - Catch the wave to survive
- Tech community:
 - Don't believe all the hype
 - But, believe some of it.
 - Auto folks know a few things too
 - Watch out for bubbles
- Both sides: Partner to thrive

Takeaway

- Solve big problems
 - Don't just think about them
 - Don't expect to do it alone
 - But, don't wait for someone else to do it.

Questions?

Thank You