



Emerging Technology

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World Changers Shaped Here



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Lets Frame Today's Discussion

- Connected Vehicles
 - Where we are
 - Where we are going
 - Hurdles and gap analysis
- Augmented Humans
 - What is reality
 - Who walks among us
 - Are you already part cyborg

How many of you expected this by 2017?



Where are we today

- Incremental growth in equipment and data collection capabilities in vehicle
- Better legal precedents and laws for autonomous driving in some states
- Large scale autonomous car pilot underway by Uber in Pennsylvania
- Significant investment by legacy and new entrants into the automotive market

Gartner Hype Cycle for 2016



Over the hump, but still 10 years from mainstream adoption

But don't we have this today?



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Obligatory Quote:

"It can't find the lane markings! You need to paint the bloody roads here”!

CEO of Volvo to the Mayor of Los Angeles

Where are we also at today

- Uneven legal precedence across states
- Poor infrastructure and non standard street infrastructure
- Large areas across the US with low or no cellular coverage
- Over 253 million vehicles on the road today, the average age is 11.4 years

Where we can go from here

- Incremental improvement in things that can be controlled from a vehicle perspective
 - Connection
 - Safety
 - Communication
 - Reporting and Data Collection

What can Connected cars do for us?

Descriptive analytics:

Answers:
“What has happened?”

Data aggregation and data mining to provide insight into the past.

Predictive analytics:

Answers:
“What could happen?”

Statistical and models and forecasting techniques to understand the future.

Prescriptive analytics:

Answers:
“What should we do?”

Optimization and simulation algorithms to advise on outcomes and machine automation.

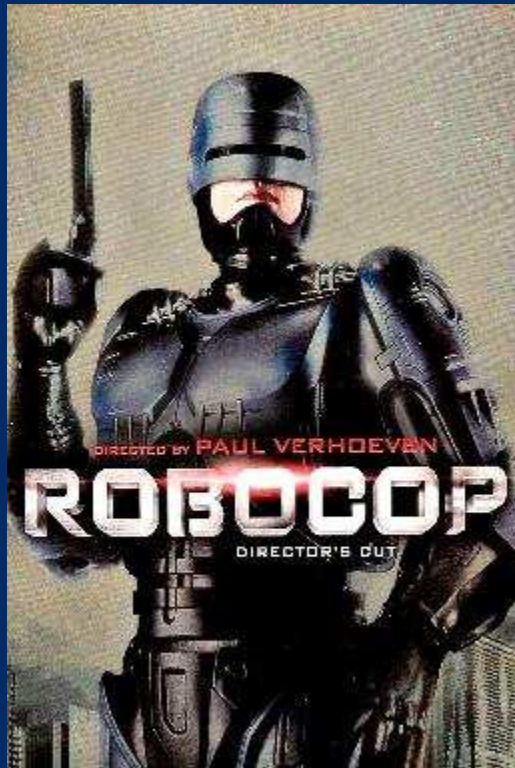
How will this make life better?

- Safer Roads
- Less Traffic
- Lower Pollution
- Real-time Communication
- Big Data Collection

What Should We Be Doing?

- Investment in standardized road infrastructure across all of the US
- Planning and forethought on our national infrastructure
- Encouragement and investment for companies to move into these markets
- Possible government intervention (buybacks, tax rebates) for individuals to upgrade to newer vehicles

Let's meet some Cyborgs



Meet Neil



Meet Nigel



So are you already a Cyborg?

Let's take a look.....



Can we rebuild him?

- Possibility of creating a better quality of life for individuals with disabilities
- Significant bioethical questions remain around enhancing already healthy individuals
- As a society how will we accept individuals that are “enhanced”?
- What are we, individually, to outsource to technology?

Thanks for Coming

- If you liked today's talk click the Thumbs Up Button
- Next Talks
 - AGA Professional Development Day, April 27th, 8:00 to 4:00
 - UNT Frisco 1 Day Cyber Security Training, May 19th, 8:00 to 4:00

References

- [Verizon IOT Report 2016](#)
- [The Simple Solution to Traffic](#)
- [Volvo Concept 26](#)
- [Human Cyborgs](#)