

Past, Present & Future of Self-Driving Narrative vs Reality

Alex Roy
General Partner

Florida Autonomous Vehicles Conference 2025

NIVC

Pyramid of Narrative Command

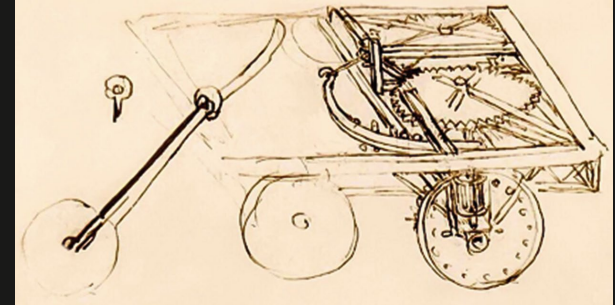


“The straight path to
progress is a lie.”

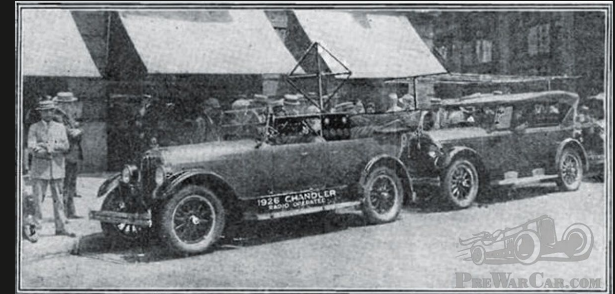
Ludwik Fleck

The True History Of Self-Driving

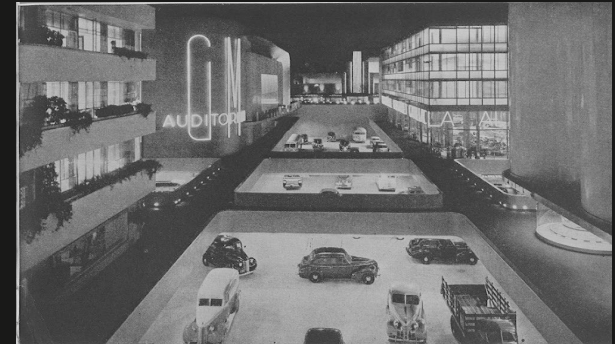
16xx Da Vinci Self-Propelled Cart



1925 Houdina RC Car NYC



1939 Futurama NY World's Fair





1982 K.I.T.T.
K.A.R.R.

Knight Industries Two Thousand
Knight Automated Roving Robot



1986 Ernst Dickmanns VaMoRs



1990 Total Recall

1995 NavLab self-drives Pittsburgh to SD

2004 DARPA Grand Challenge Off-Road

2009 Google Self-Driving Car Project

2012 HB 7027

2013 Elon/Sergey/Larry Talk Self-Driving

2015 Google Driverless Ride On Public Road
Chris Urmson's Son Is 11
Uber ATG
Tesla Autopilot Cannonball Run

- 2016 Joshua Brown
GM Invests In Cruise
Google Rebrand -> Waymo
- 2017 Trucks VC
- 2018 Elaine Herzberg Killed -> ATG Shutdown
- 2020 Waymo Launches Robotaxi Service
- 2023 Victim X -> Cruise Shutdown
- 2025 Tesla Full Self Driving Cannonball Run
Waymo Begins Scaling Operations
Tesla Launches Robotaxi Service*

The Present

Flight Envelope Protections

End-To-End NeuralNets vs. Rules-Based



Is It Self Driving?

Roy's
RAZOR

The Only Test You Can Trust





Horse & Cart



Horse
& Cart



Human-Driven
Taxi/Limo



Horse
& Cart



Human-Driven
Taxi/Limo



Waymo
Robotaxi

Operations
Are
Everything

The Future

Ubiquity $\neq$ 100%

Safety
V
"Safety"
V
Safety

- Too Many Metrics
- Safety Soup
- Safety Culture
- Culturally Safe
- Demonstrably Safe

The End of C.A.S.E.

- Connected
- Autonomous
- Shared
- Electric

End of the SAE Levels

Dual Mode

- Assisted / Augmented
- Driverless

American Autonomy



Past, Present & Future of Self-Driving Narrative vs Reality

Alex Roy
General Partner

Florida Autonomous Vehicles Conference 2025

NIVC