Driverless Vehicles.

Effects on Traffic Flow & Accident Rates.

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(Revised) Vision Statement

For people who want to see how artificial intelligence should decrease the rate of traffic accidents in the United States, the AI Traffic Model is a model that will provide such information regarding human and self-driven cars. The model will use data based on traffic accidents caused by humans while driving in various conditions such as driving under the influence of substances, using mobile devices, fatigue, road rage, and human error. Unlike current models about traffic, our model will include predictive data about artificial intelligence's effect on traffic.
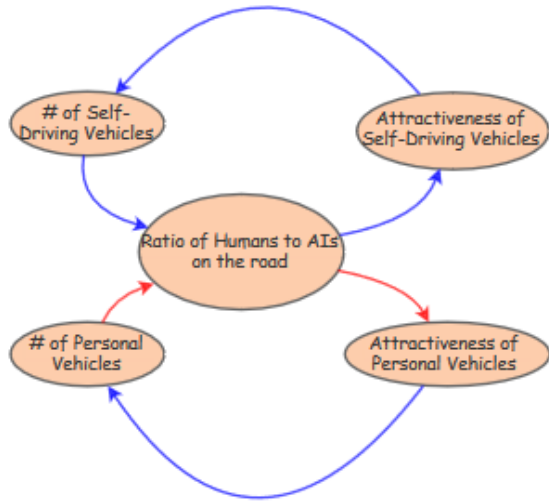
Total drivers in US: 221,712,000
Types of deaths caused by accidents:

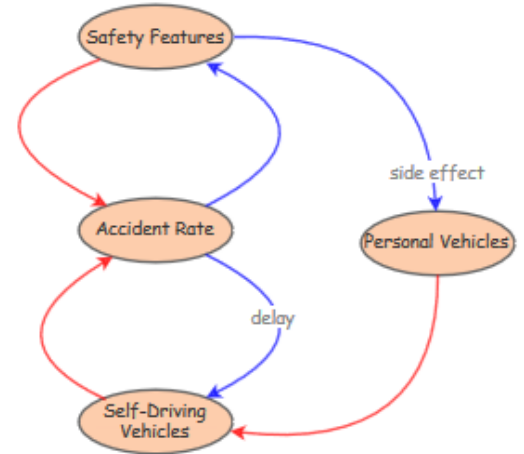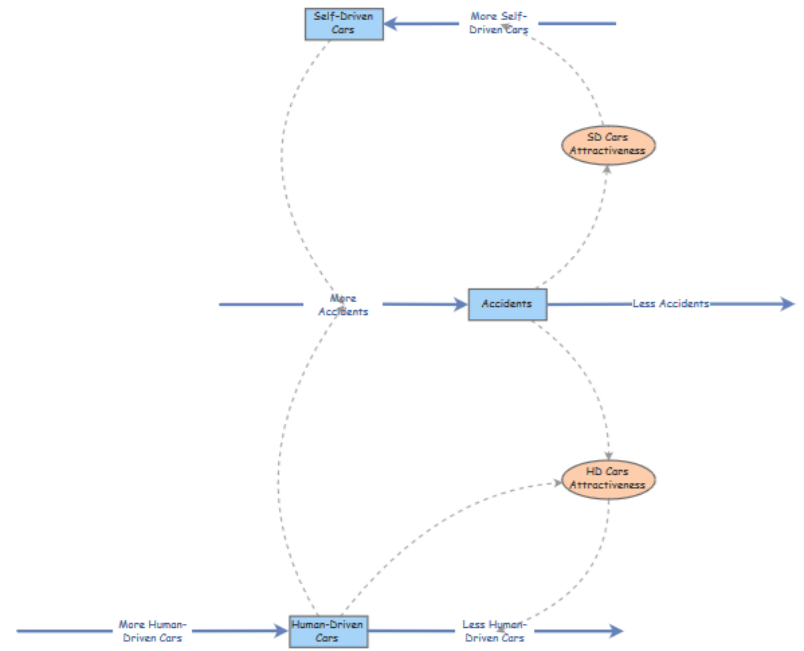|	
Distraction-related deaths (3,450 fatalities) decreased by 2.2 percent	0.00001556
Drowsy-driving deaths (803 fatalities) decreased by 3.5 percent;	0.00000362
Drunk-driving deaths (10,497 fatalities) increased by 1.7 percent;	0.00004735
Speeding-related deaths (10,111 fatalities) increased by 4.0 percent;	0.00004560
Unbelted deaths (10,428 fatalities) increased by 4.6 percent;	0.00004703
Motorcyclist deaths (5,286 fatalities – the largest number of motorcyclist fatalities since 2008) increased by 5.1 percent;	0.00002384
Pedestrian deaths (5,987 fatalities – the highest number since 1990) increased by 9.0 percent; and	0.00002700
Bicyclist deaths (840 fatalities – the highest number since 1991) increased by 1.3 percent.	0.00000379

Types of Accident Data

Success to the Successful

- # of Self-Driving Vehicles
- Attractiveness of Self-Driving Vehicles
- Ratio of Humans to AIs on the road
- # of Personal Vehicles
- Attractiveness of Personal Vehicles

Shifting the Burden

- Safety Features
- Accident Rate
- Personal Vehicles
- Self-Driving Vehicles
- side effect
- delay

Minimalistic Models

More Self-Driving Vehicles → Self-Driving Vehicles → Less SD Vehicles

SD Attractiveness

Self-Driving Vehicle Attractiveness

Human-Driven Vehicle Attractiveness

HD Attractiveness

Accidents Per Year in US

Human Operated Vehicle Attractiveness → Human Operated Vehicles → Less HD Vehicles

Self-Driven Cars ← More Self-Driven Cars

SD Cars Attractiveness

More Accidents → Accidents → Less Accidents

HD Cars Attractiveness

More Human-Driven Cars → Human-Driven Cars → Less Human-Driven Cars
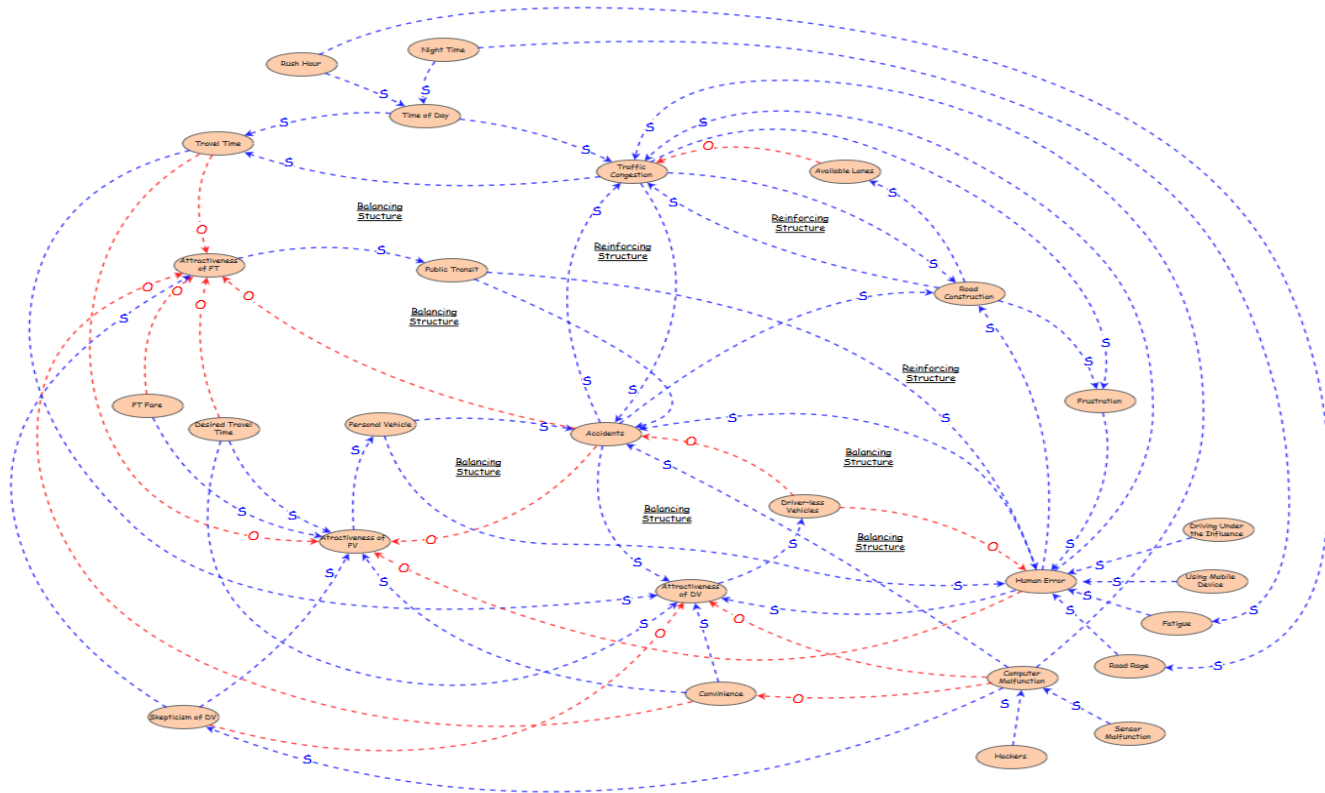
Alpha Model Prototype

Detailed Causal Loop

References

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