Applied Artificial Intelligence Project -3

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Domain: Car Accident Prediction System (CAPS)

CAPS is a bayesian probability network designed using NETICA that is able to predict probability of an car accident. It considers various causes of accidents and explores them in depth. Some of the factors that it considers include experience levels, intoxication, speeding, distracted driving, weather conditions, road conditions, other physiological conditions, car defects etc.

It combines 24 nature nodes to arrive at the probability of car accidents. I have attributed cultural misunderstanding to some of the ‘less severe’ traffic violations while distracted driving as a byproduct of different traffic violations. I have assigned various ‘weights’ and probabilities on the effects of the events on the intermediary variables.

Future work can include effects of various types of intoxications, other types of distractions (calling, texting etc.), different types of weather and road conditions and effects of prior different driving experience in other countries**.**

How To:

1. Open the “CarAccidents.neta” or the ”CarAccidents.dne” file on Netica.
2. Compile it.
3. Play with the probabilities.

Sample Test Case: