

Will Ubiquitous Eco-driving Increase Environmental Impact?

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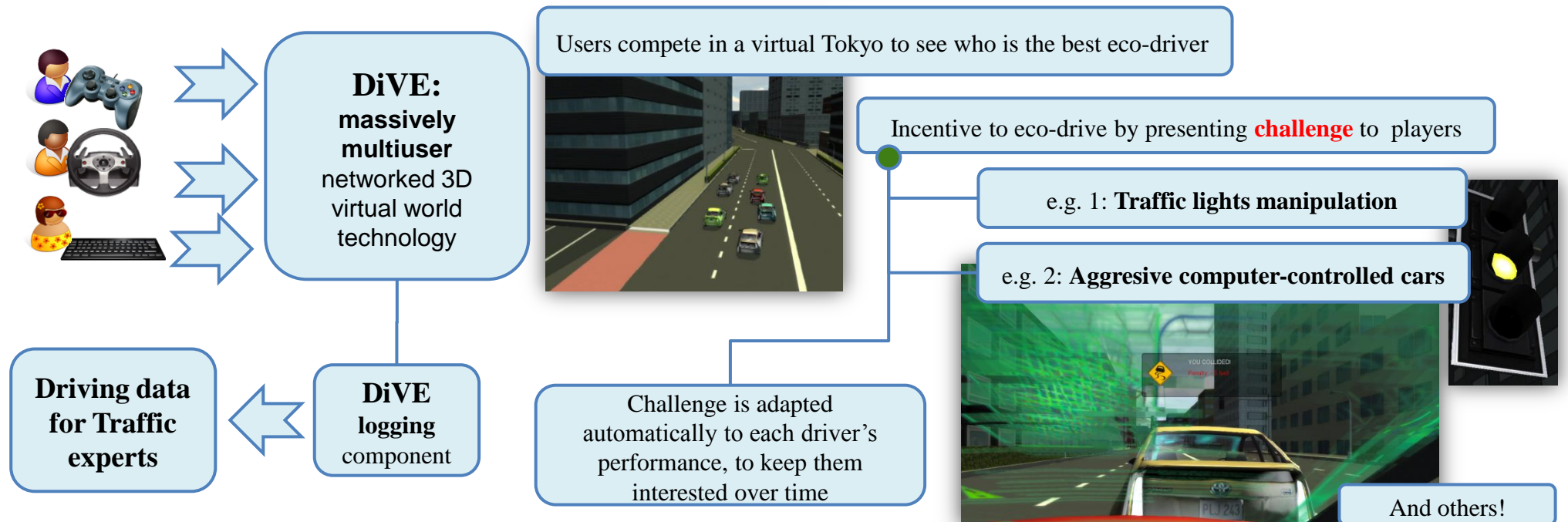
Background

Eco-driving is a driving style that offers many benefits, including greenhouse gases emissions reductions, fuel cost savings, as well as greater safety and comfort. The emission reduction effect of individual eco-driving is now clearly understood. However, what will the impact of ubiquitous eco-driving be, where everyone is driving in an eco-friendly way? Recently, some traffic engineers doubt the positive impact of ubiquitous eco-driving and even claim that emissions will increase due to slowing of traffic and increased traffic congestion.

Objective

To investigate such questions related to eco-driving behavior, we developed BeGreen, a 3D multi-user driving challenge space, which provides incentives to users for practicing eco-friendly driving. The goal of this research is to provide large-scale behavioral driving data which will allow traffic engineers to draw valid conclusions on ubiquitous eco-driving. We developed a novel incentive mechanism that automatically adapts the difficulty level for eco-driving, so that drivers feel challenged over extended periods of time, and hence create important behavior data for the traffic engineers.

The BeGreen Multi-user Eco-driving Tool



Core Technology: Incentive Mechanism using Dynamic Challenge Balancing

