Replication Data for: Evaluation of Autonomous Vehicles and Smart Technologies for Their Impact on Traffic Safety and Traffic Congestion Dataset

Dataset available at: https://doi.org/10.7910/DVN/BWCCET

(This dataset supports report **Evaluation of Autonomous Vehicles and Smart Technologies for Their Impact on Traffic Safety and Traffic Congestion**)

This U.S. Department of Transportation-funded dataset is preserved by the Pacific Southwest Region University Transportation Center in the digital repository Harvard Dataverse (https://dataverse.harvard.edu/), and is available at https://doi.org/10.7910/DVN/BWCCET.

The related final report **Evaluation of Autonomous Vehicles and Smart Technologies for Their Impact on Traffic Safety and Traffic Congestion**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/54429.

Metadata from the Harvard Dataverse Repository record:

Description:

Our research generated demographic, survey, and behavior data related to driver performance on a simulated highway environment. Data was collected from 36 individuals, that were predominantly undergraduate and graduate students at California State University Long Beach. All identifying information has been removed from the data. Specifically, data in the selected repositories includes: • Demographic data related to participant characteristics, including age, gender, ethnicity, and driving experience. • Subjective reports of participant trust in automation adopted from Jian et al. (2000) using a 6 choice Likert-type scale. The questionnaire is designed to measure specific attitudes about automation including trust (items 2-5) and overall view of automation (items 9-12). • Subjective reports of participant workload. Participants completed a paper-based NASA Task Load Index (TLX) workload scale (see Appendix B). NASA-TLX consists of 6 subscales measuring different subjective dimensions of workload: Mental Demands, Physical Demands, Temporal Demands, Frustration, Effort, and Performance. NASA-TLX also included an initial weighting of these dimensions. A single workload score is calculated from NASA-TLX following each track by measuring the percent rating (0-100) on each dimension and calculating the average across all dimensions. Higher values indicate increased subjective mental workload. • Driver performance measures when performing obstacle avoidance maneuvers on a simulated highway. Specific performance measure for each obstacle maneuver are provided in the repository including vehicle state at the initiation and completion of maneuvers. (2020-01-31)

Subject

Social Sciences

Recommended citation:
Miles, James, 2020, "Replication Data for: Evaluation of Autonomous Vehicles and Smart Technologies for Their Impact on Traffic Safety and Traffic Congestion", https://doi.org/10.7910/DVN/BWCCET, Harvard Dataverse, V1

Dataset description:
This dataset contains 1 .zip file collection described below.

Replication Data for Evaluation of Autonomous Vehicles Data.zip:
This collection contains 3 .csv files, listed below.
- Workload_Measure_TLX_.csv
- Driver_performance_of_obstacle_maneuvars_.csv
- Demo_and_Trust_Questionaire_.csv

The .csv, Comma Separated Value, file is a simple format that is designed for a database table and supported by many applications. The .csv file is often used for moving tabular data between two different computer programs, due to its open format. The most common software used to open .csv files are Microsoft Excel and RecordEditor, (for more information on .csv files and software, please visit https://www.file-extensions.org/csv-file-extension).

National Transportation Library (NTL) Curation Note:
As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (https://doi.org/10.21949/1503647) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset.

NTL staff last accessed this dataset at https://doi.org/10.7910/DVN/BWCCET on 2021-02-01

If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.