Plan Overview

A Data Management Plan created using DMPonline

Title: CONTEXTUALLY SELF-ORGANISING MAPS FOR DRIVING RISK AVOIDANCE

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Template: University of Strathclyde

Project abstract:

Whatever Frames per second (FPS) you execute it should report the risk if it has detected. If it goes undetected, it should log every event of getting undetected and provide a score to the driver at the end of the journey. Marked landmarks must be reported by the Dashcam to engage the driver. The objects that a driver sees are candidates of observation. The texts that a driver reads are candidates of assimilation. The number plates that a driver reads are candidates of inference. The full design table will have a limit to the values. In n frames from FPS, there is a communication model that the dashcam is designed with. Such a communication model works with the dashcam and the driver. Going through all the videos about 1000 dashcam videos, the learner learns the driver engagement from its basic design. So, in 1000 dashcam videos, about 1000 * 10 screenshots would be available that refer to the PCA design matrix where the AI agent does spectrum analysis. Give use case identification for each communication model. There are entities within the driver engagement: (1) The Driver (2) The Dashcam (3) The Environment From the given communication models, identify which is the best for driver engagement and propose that as the solution.

ID: 64319

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CONTEXTUALLY SELF-ORGANISING MAPS FOR DRIVING RISK AVOIDANCE

Administrative Data

Creator

Aswin Vijayakumar

Creator Department

Question not answered.

ID

Question not answered.

Co-investigator(s)

Question not answered.

Co-investigator(s) contact details

Question not answered.

Project title

CONTEXTUALLY SELF-ORGANISING MAPS FOR DRIVING RISK AVOIDANCE

Project Description

To simulate the scenes that a driver sees using a dashcam as well as while driving. To aggregate the signal data that the driver observes through the dashcam or while driving.
Scenes are simulated using Image Captioning data and a vocabulary of information is extracted from the scenes.
Signal data is simulated by accumulation and the design is fulfilled by constrained optimization of objects that constitute towards a better driver engagement.

In the cases of scenes, a routine report is made that is available to the driver in order to inform the driver of the scenes that he has come across during his driving journey.
In the cases of accumulated data, a factor is introduced in order to analyse the tolerance level of the driver towards the scenes.

Funder

Question not answered.

Grant reference number

Question not answered.

Project start date

12/10/2020

Project end date

Question not answered.

Date of first version

Question not answered.

Date of last revision

Question not answered.

Related policies

Question not answered.

Existing data

Video data obtained from Dashcam

A Refresh Cycle Network that repeats itself the number of objects detected, texts read, number plates seen, etc as a replay buffer memory

Data Collection

What data will be collected or created?

Image Captioning Data

Design Matrix consisting of observations

Video Data of Dashcams

Spectrum of Design Matrix from beginning to end of a Refresh Cycle

Driving Mistakes Data

How will the data be collected or created?

Research into data scenes

A common design drawing that elicits the technique of conducting design matrix analysis and keeping objects detected, text detected and number plates detected and speed of travel into an agreed feedback loop that repeats itself for further matrix analysis

Research into common issues surrounding risks involved in driving, such as Driving Mistakes committed by drivers.

Documentation and Metadata

What documentation or metadata will accompany the data?

Simio Models will accompany the data

Ethics and Legal Compliance

How will ethical issues relating to data be managed?

Maintaining privacy in communications

Proper documentation of project areas affecting highly sensitive areas such as driving risk

How will copyright and Intellectual property (IPR) issues be managed?

Using Open Source hardware as well as Open Source Software
Buying for Licenses in cases where there is need to use proprietary software

Storage and Backup

How will data be stored, backed up and shared during the research project?

Preparing for a project and a github team base
Collected data is stored on AWS

How will access and security to data be managed during the research project?

AWS Cloud Account

Selection and Preservation

Which data should be retained, shared, preserved and destroyed

Question not answered.

What is the long-term preservation plan for data?

Question not answered.

Data Sharing

How will the data be shared?

Data will be shared using Slack Channels, and Emails
Data will be shared in blog sites

Are any restrictions on data sharing required?

No restrictions for non-sensitive data

Responsibilities and Resources

Who will be responsible for data management?

I, Aswin Vijayakumar, will be

What resources will you require to deliver your plan?

Software Stack
Github
Blog Site