The SafeStreets system shall be providing four main functions to various users; in this section the system boundaries and scope used to define the limitations and different responsibilities of the S2B. The first of the three main functionalities, is the enabling of users to report traffic violations. Regarding this, some phenomena are regarded as world phenomena not viewed by the system due to its limitations such as the fact that the system does not directly detect a violation. However, it can be accounted for by the system through a traffic report made by the users. The other two main functions have to do with the SafeStreets system providing services to government authorities. The domain limitations of the system affecting this interaction are also discussed in this section. Such as, the fact that the system is only able to make suggestions for preventive measures to the authorities based on the accident data that have been communicated. Meaning, that the system does not have any knowledge of accidents unless they are reported by the authorities and that the system can only suggest interventions and neither put them into place nor can detect them being applied. Moreover, a second function to the authorities would be the communication of traffic reports received from users to be later used by government officials to give out traffic tickets, the system responsibilities to support this process is to prevent the users form tampering with images “digitally” and to provide the collected reports to the authorities proactively. In other words, physical tampering with license plates to mislead authorities and the actual process of giving out tickets is not part of the application domain. Below, is a table summarizing and classifying the different phenomena that are related to the system functionalities.

Main system functionalities:

**F1: Reporting of violations**

**F2: Communication of collected data to users**

**F3: Suggestion of interventions**

**F4: Communication of reports for ticketing**

|  |  |  |  |
| --- | --- | --- | --- |
| **Phenomena** | **Classification** | **Justification** | **Functionality** |
| Tampering with license plate | ***World*** | Pure world phenomena since no measures are to be applied to detect nor prevent this phenomenon therefore it is unobserved by the system | F1, F4 |
| Issuing of tickets | ***World*** | The actual issuing of the tickets is the responsibility of the authorities the system has no part in it and does not have access to the data regarding issued tickets | F4 |
| Putting preventive measures for traffic violations into place | ***World*** | The application of preventive measure by the municipality is also a pure world phenomenon as the system has no means of knowing new measures by applied | F3 |
| Traffic violations | ***World*** | The system does not directly observe or detect committed traffic violations if they are not reported by the user then the system cannot be held responsible for not having knowledge of them | F1, F4 |
| Occurrence of accidents | ***World*** | Similarly, to traffic violations unless system acquires this kind of data through the authorities it has no way of detecting such phenomena | F3 |
|  |  |  |  |
| Publishing of insights regarding the accumulated data | ***Shared*** | Performed by the machine observed by users and authorities in the world | F2 |
| Reporting traffic violation | ***Shared*** | Performed by users in the world observed by the machine | F1, F4 |
| Publishing of accident data by the municipality | ***Shared*** | Performed by authorities in the world observed by the machine | F4 |
| Suggesting interventions | ***Shared*** | Performed by system and communicated to authorities then if applied observed by the world | F3 |