



中国汽车技术研究中心有限公司

China Automotive Technology and Research Center Co., Ltd.

Open Issues discussion of ORU

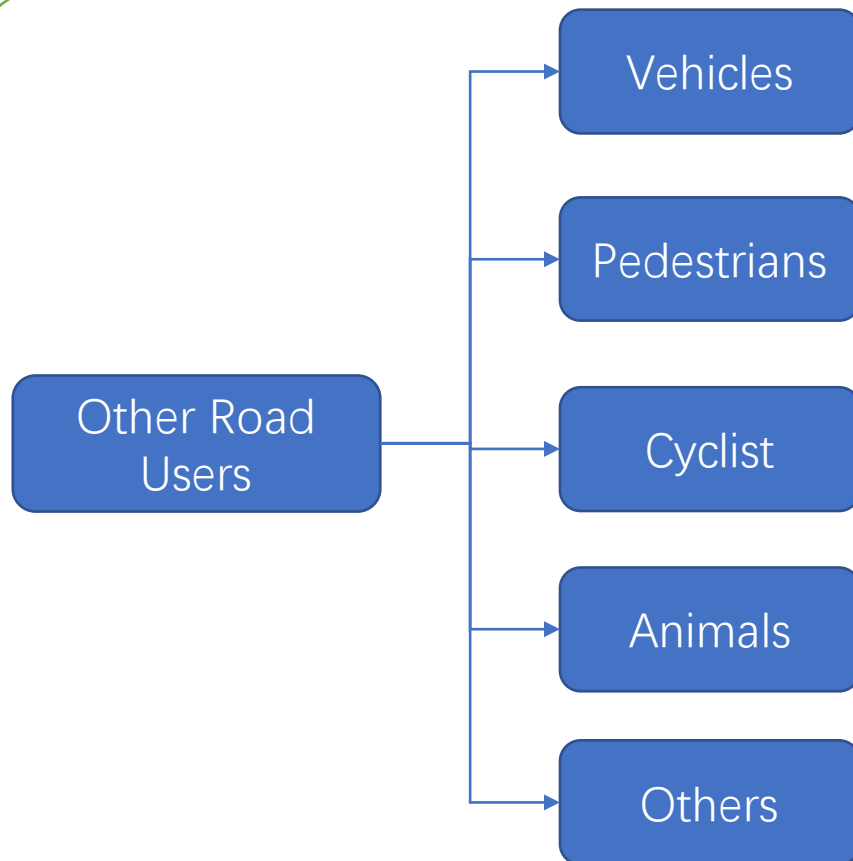
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Open issue

- Clarification of ORU (2.7.2.1.2.)
- Consideration on animals (2.7.2.1.2.)
- Clarify perception “in vehicle path” versus in vehicle environment (2.7.2.1.2.)



Preliminary

- Road safety relevant entities are infinite to enumerate;
- Most properties are shared and could be generalized;

Tradeoff

- Start from limited but typical cases and generalize to wider scope;

Border

- Obstacles and traffic infrastructures are not included;

- **Clarification of ORU (2.7.2.1.2.)**
- **Consideration on animals (2.7.2.1.2.)**
- Clarify perception “in vehicle path” versus in vehicle environment (2.7.2.1.2.)

Clarification of ORU (2.7.2.1.2.)

- ORU includes a vast variety of entities, include vehicles, pedestrians, cyclists, animals and others.
- Should ORU contain vehicles?
 - Yes, based on R157 chapter5-5.2.3.3, vehicle should be considered into our research scope.

In case the minimum time gap cannot be respected temporarily because of other road users (e.g. vehicle is cutting in, decelerating lead vehicle, etc.), the vehicle shall readjust the minimum following distance at the next available opportunity without any harsh braking unless an emergency manoeuvre would become necessary.

- Should ORU contain pedestrians and cyclists?
 - Yes, pedestrians and cyclists are literally Vulnerable Road Users, need pay more attention.
- 5.2.5.3. The activated system shall avoid a collision with an unobstructed crossing pedestrian in front of the vehicle.
- Should ORU contain animals?
 - Need more discussion. Especially there could involved some morally issues when encountered a oncoming collision with human or animals.

Open Issues

- Clarification of ORU (2.7.2.1.2.)
- Consideration on animals (2.7.2.1.2.)
- **Clarify perception “in vehicle path” versus in vehicle environment (2.7.2.1.2.)**

Clarify perception “in vehicle path” versus in vehicle environment (2.7.2.1.2.)

- Our preference is vehicle environment or driving environment.

The sensing system regarding to the OEDR function should at least determine the driving environment and traffic dynamics:

- (a) Across the full width of its own traffic lane, the full width of the traffic lanes immediately to its left and to its right, up to the limit of the forward detection range;
- (b) Along the full length of the vehicle and up to the limit of the lateral detection range.