Evaluating the effectiveness of real-time feedback in influencing e-scooter riders

Beam mobility are a shared e-scooter and e-bike operator providing shared rental services in cities across New Zealand, Australia and the Asia Pacific .

Since the beginning of 2023, Beam have been progressively adding new technology collectively named “Pedestrian Shield” on vehicles in Auckland, Wellington, Melbourne, Hobart and Perth. This is an advanced module capable of detecting infrastructure like roads or footpaths, and pedestrian numbers in real-time using an onboard camera. With Pedestrian Shield, Beam’s e-scooters accurately and reliably identify whether the vehicle is traveling on footpaths, streets or bike lanes, to account for the differing restrictions on each.

Beam are utilizing a multi group testing approach to test different audio alerts and rider feedback to improve compliance to city regulations. These groups vary depending on city regulations but effectively function as a full use of the technology, a group with some features enabled and a control group. Beam’s standard rider enforcement and education programme will be in place across all markets and e-scooters.

This research will be completed by the end of 2023 and findings on preferred approaches will be presented to key stakeholders in 2023. Preliminary findings support the use of camera based intervention for dynamic speed changes and provide granular insights on rider behaviour and infrastructure usage.

To clarify, this is not a pitch or an endorsement for Beam or Beam’s technology, we want to discuss this project and seek further feedback on the research direction from the community stakeholders in the conference audience. We have no issues with clearly discussing our presentation beforehand. There has been significant interest in this technology from many of the groups that make up this conference and this will be an effective way to review it.

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