

Submission
No 178

**INQUIRY INTO USE OF E-SCOOTERS, E-BIKES AND
RELATED MOBILITY OPTIONS**

Name: Name suppressed

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Partially
Confidential

Submission on e-bikes and e-scooters

I make this submission on e-bikes and e-scooters as a regular walker, runner and cyclist, and as someone interested in walkable cities.

There is a tendency to see e-bikes and e-scooters as representing the future and as representing “progress.” In this, there are interesting parallels with the early years of motor cars, which were represented the same way.

I would like to present issues that need addressing in e-bike rollouts, and also to suggest that e-scooters, e-skateboards and hoverboards are actually very dangerous devices, and should not be encouraged, and certainly should not be allowed on public footpaths and roads.

Part of the argument for e-devices that they provide the same social benefits as electric cars, but they don't. Whereas electric cars replace petrol cars and thus directly reduce emissions, e-bikes and e-scooters do not replace equivalent petrol devices.

Further, if not properly managed, e-bikes and e-scooters actually threaten some sustainable transport modes, such as walking, running and even cycling. I discuss this further in later sections.

E-scooters are another matter entirely. E-scooters are dangerous for their riders and should not play any role in the transport mix. We could prevent a lot of problems by recognising that now. See later discussion.

Footpaths are incredibly valuable community assets and should be protected

Footpaths are an incredibly powerful response to the influx of motor cars in the early 1900s. Footpaths were created to provide a safe space where people could walk without threat from cars. These days, well-maintained footpaths are the mark of attractive cities and attractive neighbourhoods within those cities.

As well as being used for walking, they are safe areas for children and family pets, for the elderly to engage in walks and for people entering and leaving their homes and their parked cars. Every one of Sydney's 5 million people uses footpaths.

In the past, we have acted to protect footpaths by legislating to stop motor bikes from riding on them, and to stop cars from parking on them.

E-bikes and e-scooters, because they are ridden at such high speeds, threaten the normal uses of footpaths and therefore should be more actively excluded from footpaths.

Paradoxically, e-bikes and e-scooters might threaten sustainable transport

The most sustainable forms of transport are walking and running, which are generally conducted on footpaths. E-bikes and e-scooters ridden on footpaths have the potential to deter some walking and running and, in that sense, could actually reduce levels of sustainable transport use.

Lobbyists claim e-bike trips replace car trips, but most do not. E-bike and e-scooter trips tend to be into high density city centres; they replace bus trips rather than car trips. Their effect on emissions is probably negligible. There were studies on this in the US a few years ago, but I don't have the references to hand.

One important exception is where e-bikes are used to ferry children to childcare. That usage does generally replace car trips and, indeed, is a good use of e-bikes.

What makes e-bikes and e-scooters dangerous

E-bikes and e-scooters differ from and are more dangerous than normal bikes in that they provide instant speed without the experience that cyclists typically develop first. They pose a danger because

1. It is easier for an e-bike or e-scooter to travel at high speeds on footpaths, because speed is available with a switch.
2. Where pedestrian paths cross bike paths with restricted sight lines, the higher speeds of e-bikes can catch pedestrians off guard.
3. On bike paths, e-bikes typically travel 20 to 50 percent faster than bikes. This sometimes leads to dangerous overtaking that threatens oncoming riders

E-scooters and other stand-on devices have no useful role in the transport mix

The small wheels of e-scooters make them prone to forward tipping, with drastic consequences for the rider. This is particularly problematic at night

1. Small wheels also deprive e-scooters of manoeuvrability, which means they have trouble negotiating paths with pedestrians.
2. Hand signals are impossible for e-scooter riders, which can cause problems on bike paths and roads
3. E-scooters can't carry any luggage, and thus are only useful for a small group of users who don't need to carry tools or children

Taken together, these factors suggest that e-scooters do not have any useful role in the transport mix. Regulators should not be afraid to engage with this.

E-skateboards and hoverboards have similar problems and can not be ridden safely at speed. If the wheels encounter any obstacle, the rider will be thrown forward at speed. While that will injure the rider, it will also cause catastrophic injuries to any pedestrians in front of the device. An 80 kg adult moving at 40 kph has deadly force. It's not generally appreciated that pedestrians suffer more than riders in these collisions, because the impact causes the pedestrian to pivot about their ankles and smash face first into the pavement.

Again, regulators should not be afraid to engage with these problems.

Make Walkability a First-Rate Concern

Many Councils and government departments group walking and cycling together in some sort of sustainable transport section. The section is usually staffed by cycling advocates, which leads to walking being treated as a secondary issue.

In some cases, walking funding is even used to make walking paths more suitable for fast bike riding, which defeats the purpose of the funding.

We would get better policy and cities by separating walking and cycling, so that each activity has its own champions. Walking would fit nicely in a group concerned with streetscapes and urban design.

Legislative and other changes

Existing laws were written when e-bikes were toys. Modern batteries have turned e-bikes and e-scooters into devices capable of travelling at 50 kmh and therefore there is an urgent need for our laws to treat these devices differently from normal bikes

Useful changes would be:

1. Riders of e-bikes and e-scooters should undergo training similar to that given to motorbike riders. This is particularly important given that problem riders are the same demographic as problem car drivers, and need to be taught how to operate fast devices in multi modal environments
 - a. Cycling advocates resist this idea, fearing that restrictions on e-bikes will impact all cycling. That is why it is so important that laws distinguish between e-bikes and normal bikes
 - b. Training in Australian road law is particularly important for overseas students working as delivery riders. Most of those students have not held driving licences in their home countries.
 - c. The value of even basic training can be seen in improvements in delivery riding after delivery companies introducing training in 2019. Riders were taught how to ride safely in traffic and that they must be careful on footpaths
2. We long ago recognised the value of speed management for cars. It is time we applied the same discipline to bike paths, with posted speeds and enforcement
 - a. Cycling lobbyists claim enforcement is impossible but that's not true. It would be trivial to use Radio Frequency tags to identify bikes from a short distance, and those tags could be read by police or by in-ground detectors
3. Island bus stops pose problems for bus passengers who have to cross bike paths. The approaches on the bike paths should use squiggle lines to signal to riders that they need to slow down and give way
4. Children should not be able to legally ride e-bikes and e-scooters, because the speeds are too high. This is another area where the difference between bikes and e-bikes is important
5. Riding e-scooters in shopping centres should be a dedicated offence. There have already been injuries to children from this practice

6. Liability in car-bike collisions should be reviewed. E-bikes travelling fast along footpaths pose a threat to cars leaving their driveway, just as cars emerging too fast pose a threat to riders, There has been at least one case where an e-bike ran into the car and then successfully sued the driver.
7. In apartment buildings, e-bikes are sometimes left in stairwells, which are the exit routes in the case of fire. If the e-bike battery catches fire, it would flood the exit route with toxic fumes. A law that addresses this problem would help raise awareness of the issue

Conclusions

E-bikes require new laws that safeguard footpath users. They should not be promoted without considering other city users.

E-scooters and stand-on devices are extremely dangerous to their riders and should play no role in the transport mix.