

Regulatory challenges arising from disruptive transport technologies – the case of e-scooters

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1 Introduction

Developments in the urban transport environment are accelerating. Changes in communications, the growth of processing power, the internet, and the resulting ability to automate basic transport functions are allowing new approaches to the provision of transport services to flourish. This acceleration of transport development is, on the other hand, being pushed by factors such as congestion in our cities, pollution and climate change. Developments have included:

- The advent of rideshare services such as Uber and Lyft in competition with the taxi industry
- 'by the hour' car share schemes such as GoGet supplementing traditional car rental services
- Bicycle hire schemes; both "docked" (such as CityCycle in Brisbane) and "dockless" schemes such as o-bike and ofo
- The appearance of automated public transport systems (eg. Sydney North West Metro)
- Automated vehicle trials
- Increasing numbers of electric vehicles.

Automation of large-scale transport systems requires a large amount of government and industry collaboration. Their development spans a number of years and the regulatory environment is able to evolve with it. For example, governments are largely leading automated vehicle trials around Australia. Additionally, electric vehicles are slowly entering the Australian market but much of their regulation, which lies in the area of safety, is already in place.

The contrast with the other transport developments (ride-share, bike-share, car-share and e-scooter-share) is that the latter has much lower barriers to entry and their advent can be almost overnight. This often leaves government regulators in a reactive situation.

This paper describes the experience of Brisbane City Council in facing a disruptive technology i.e. the introduction of shared e-scooters and how Council faced the policy challenges so that a new industry could operate in the city and provide a positive outcome for the community.

2 The emergence of e-scooters

An electric scooter (commonly known as an e-scooter) is an electric powered two wheeled device of limited power that allows a standing person to operate it on pathways. Commonly they are available for public hire.

The e-scooter industry emerged just as the Chinese led dockless bicycle industry plateaued in late 2017. The first city impacted in the USA was Santa Monica where a local start-up, Bird, launched its first e-scooter hire service in September 2017. Other start-up companies followed suit in a number of jurisdictions, first across the USA and then major European cities such as Paris and London and cities in South East Asia. Key characteristics of these companies is that many are venture capital funded and have minimal dependence on full time permanent staff whilst employing people on a gig-economy basis.

A number of jurisdictions were faced with e-scooter companies simply emerging on the streets, without seeking any approval from municipal authorities (Kerr, 2018). Following community complaints about clutter on footpaths and speeds, San Francisco City banned e-scooters outright in April 2018 to allow time to contemplate its regulatory approach. Santa Monica went into a legal battle with Bird over interpretation of local laws and licence fees.

Following issuing “cease and desist” orders a number of cities tendered for operators to operate only if they fulfilled a number of key criteria. San Francisco tendered for a trial and awarded two operators in September 2018. At the same time Santa Monica tendered out and licenced four operators under a pilot.

In Singapore, e-scooter operators were essentially banned from public places. In January 2019, the Singapore Government called for applications for operating licences. At the time of the preparation of this paper, it appears that no licences have yet been issued.

3 E-scooters in Brisbane

In Brisbane, the scene was remarkably similar. Lime, a San Francisco based e-scooter company appeared in Brisbane in early November 2018. After being advised that the e-scooters that they were promoting did not comply with Queensland legislation they successfully lobbied for a legislative exemption which was granted on 15 November 2018. Later in December, the relevant parts of the Queensland Road Rules were amended to allow electric e-scooters of a rated speed of 25km/h and a weight of up to 60kg, to operate. After this amendment it was left to Brisbane City Council to determine if and how they would operate in Brisbane.

Given that this was a new industry of less than one year old and few international examples of what constituted “success” the way forward was by no means clear.

Certainly this disruptive technology was supported in principle by both the State Government and the City Administration and the view was not for Council to ban the e-scooter hire scheme from operating on public land (Council roads) but to find a satisfactory operating solution.

Council’s only available legal instrument to regulate e-scooters is the *Public Land and Council Assets Local Law (2014)* (PLACA). This allows Council to licence for the

management and regulation of activities, provides for Council consent to be required for certain activities, and provides a procedure for the removal or confiscation of articles or vehicles situated on Council assets that violate the Local Law.

A trial was initially consented to the end of February 2019, and then incrementally extended to late July 2019. During this trial, safety issues, levels of complaints, patronage, and the level of compliance to Queensland Road Rules and consent conditions were monitored and evaluated.

4 Policy Issues

The advent of the e-scooters raised a number of questions for Council:

- What is the community view?
- Is this a good thing for the city?
- Should government regulate?
- If so how many e-scooters should be on the streets and how many operators should there be?
- What should the relationship be between government and operators?
- What could operators bring to the table in terms of wider community outcomes?

The six-month experience since e-scooters have been on Brisbane streets has brought about different reactions from the community. Certainly the e-scooters have been popular given the number of trips (over a million). This has been offset by resident complaints about e-scooters being parked across footpaths, near misses, speed and incidents. However, at the time of writing less than 500 complaints had been received (Stone, 2019). This may not be a reason for complacency as community views can lead to the perception that government is not doing enough to protect the public interest and increasing calls for e-scooter hire services to be banned altogether.

This leads on to whether the presence of e-scooter hire services represent a net community benefit. New Zealand research (Kantar, 2019) revealed that the key sources of e-scooter ridership comes from:

1. induced trips (ie, trips that would not have happened if the e-scooters were not available) (13%)
2. mode shift from ride share services (eg. Uber, Lyft) and taxi services (10%)
3. mode shift from motor vehicle (driver / passenger) (19%)
4. mode shift from walking (46%)
5. mode shift from public transport (7%).

Some believe that the e-scooters do not bring a positive outcome to the community as there are not the health benefits that the community gets from people using more active forms of transport (walking and cycling).

Experience from a number of jurisdictions has shown that there is a need for government to regulate due to:

- the need to ensure community safety (both for riders and non-users)
- fostering the overall sustainability of the industry within the city
- the fact that e-scooter hire operators are using public assets for a commercial activity
- enabling further benefits to the community to be achieved beyond a simple fee for service.

A key regulatory aspect to the first two points above is the number of e-scooters to be allowed and the number of operators. This is determined by:

- the potential size of the travel market
- the number of e-scooters on the street that the community will accept
- the minimum size of operation that is commercially viable.

In a disruptive technology environment, in an unknown market, the potential size of that market is difficult to determine. In a market sounding process, Brisbane City Council sought information from potential operators as to what their perception of the overall size of the market was.

On the other hand there is a basic perception from the community as to what constitutes street clutter. As this is enormously subjective, with a number of different views, the approach has been to pilot a number of e-scooters and monitor rates of complaints. In Brisbane the number of e-scooters was increased carefully from an initial 500, to 750, and then to 1,000. It is to be noted that these numbers are less than what e-scooter operators perceive is the overall size of the e-scooter market.

However, the provision of e-scooters is not an essential service or one that suffers market failure and would need Government financial support. There is no requirement therefore to contract services to one or more operator(s) with controls on levels of service and pricing. All jurisdictions that have allowed e-scooter operators have taken the view that the provision of e-scooter hire services is best undertaken by more than one operator in an ongoing competitive market. Ongoing competitive provision not only assists in controlling price but incentivises operators to innovate on an on-going basis.

At the time of writing Brisbane City Council is proposing to enter into operating agreements with pre-selected operators as these provide additional regulatory provisions (eg. the sharing of data, specifications etc) that PLACA does not cover, although PLACA still remains the legal foundation on which any consent is based.

In consideration of the number of operators, a balance needs to be made between increased competition (which points to more operators) and minimising the costs of regulation (which may point to a minimum of operators).

5 Conclusion

Through the experience of the introduction of e-scooters into Brisbane, the following conclusions and lessons from the appearance of any new disruptive transport technology are made:

- the importance of gaining continual intelligence on new developments
- understanding the market and the industry although it is in “start-up” phase
- the importance from learning from other jurisdictions where the disruption has already happened and the jurisdiction is further on the learning curve
- the importance of short-term trials to determine community acceptance and to gauge regulatory impacts
- consideration of whether the community is better off with the disruption and if so, how the community benefit can be maximised; and finally,
- is the disruption long term or “flash-in-the-pan”?

6 References

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