

Are E-Scooters a Threat to Active Travel?

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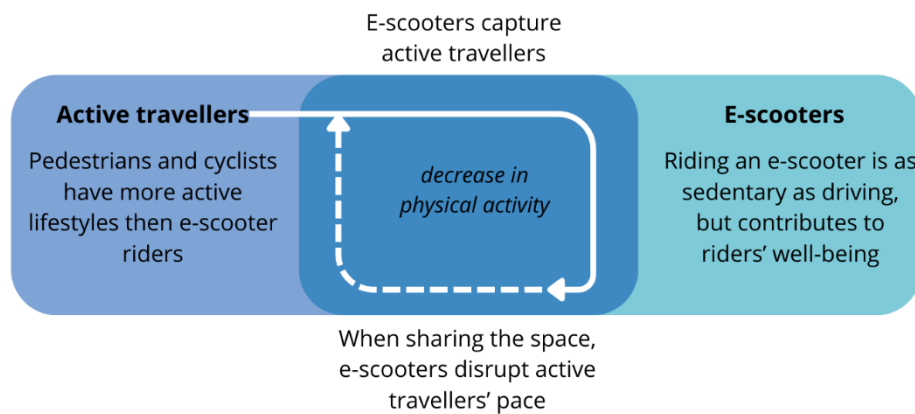
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One of the great paradoxes of modern times is that, immersed in a vortex of hypermobility, acceleration, and change, sedentary rates among the adult population continue to grow year after year (OECD, 2023). Physical inactivity is highly prevalent globally and a growing body of evidence points to a relationship between this lifestyle and the increase in the prevalence of obesity, diabetes, cardiovascular disease, and premature deaths, especially in urban areas. Precisely in these urban scenarios, a new player contributing to this paradigm of speed and acceleration has recently emerged: the electric scooter (hereafter e-scooter). The irruption of these compact electric-powered devices, understood by some as active modes, is transforming the way people move around cities, offering an alternative to traditional forms of transportation and challenging established patterns. Its rapid introduction and deployment emergence add complexity to the urban transportation landscape, sparking thought-provoking questions about the intersection of mobility, well-being, and shared public

spaces. Understanding these aspects is crucial in capturing the potential role of e-scooters as urban mobility solutions, especially regarding their influence in promoting active lifestyles.

Throughout this commentary, we reflect on e-scooters' relation to active living (Figure 1). We argue that labelling e-scooters as 'active modes' of transportation can be misleading, as their usage patterns often do not align with active living principles. Many cities have witnessed that e-scooters are contributing to the decrease in active practices among former pedestrians and public transit users. In addition, the introduction of e-scooters into urban environments poses a challenge to the well-being of pedestrians, as they share sidewalks and can lead to safety issues and conflicts. However, despite most of the time e-scooters are confronted with a hostile environment, we acknowledge that they seem to offer a pleasant travel experience.

Figure 1. E-scooter relation to active living.



In this context, there is an ongoing debate about whether e-scooters align with traditional definitions of active transportation, being still unclear their implications for physical activity. In fact, some administrations are presenting them under the umbrella of active mobility (IERMB, 2021). Yet, e-scooter riders assume a predominantly sedentary posture unlike urban cyclists, who actively pedal and engage their muscles during city commutes. This suggests that e-scooter trips are akin to auto trips in terms of activity levels (Sanders et al., 2022). Recent research underscores this distinction, revealing that e-scooter users appear to lead less active lifestyles and are notably less likely to meet the physical activity guidelines set forth by the World Health Organization (Bretones & Marquet, 2023).

In dense and compact cities short trips are already served by active transport modes like walking and biking, making it less likely that e-scooters offer significant advantages over existing options. While e-scooters were also hailed as a potential solution to reduce car dependency, a notion frequently promoted by e-scooter companies. The reality suggests a different narrative in densely populated urban areas,

struggling to convince car users to make the switch (Roig-Costa et al., 2021). Research indicates that people who previously walked short distances or walked to the nearest public transport stop may now opt for e-scooters (Laa & Leth, 2020). Therefore, the adoption of e-scooters contributed to a decline in physical activity, as some individuals opt for the convenience of e-scooters over walking. E-scooters are not only substituting walking but also cover the first and last mile, a distance traditionally undertaken by active modes. This is even worrisome in the case of privately owned e-scooters, which are ridden 'room-to-room' as they do not have to be docked or parked outdoors. This reduces the already minimal exercising potential that e-scooters offer between dismounting the vehicle and reaching the destination. Their unparalleled convenience solidifies their status as a compelling choice for urban mobility.

Besides the challenges posed by e-scooters in promoting active mobility, e-scooters are miscible with active travellers. Their nature allows them to share bike lanes and sidewalks with both cyclists and pedestrians. It is particularly in these urban environments with blurred boundaries where e-scooter

riders have often been observed to 'play' with traffic rules to maintain their momentum (Tuncer et al., 2020). Some of these behaviours include running red lights, temporarily invading the sidewalk, or riding contraflow. Riders' strategies to keep their rhythm disrupt pedestrians' and cyclists' own pace, and creates fears of injury among active travellers (Gibson et al., 2022). Parked e-scooters are also a threat to pedestrians' flow when parked in public spaces, which is particularly the case of shared dockless schemes (Feng et al., 2021). Since cities are usually divided into two primary corridors, a main one for cars and another for pedestrians (Spinney, 2008), reckless riders have the potential to dissuade active travellers as the latter might feel discouraged to compete for the lane or the sidewalk, which ultimately hinders a more active mobility scheme (Cubells et al., 2023).

Yet, the playful and risk-taking character of e-scooters is what draws users to try these vehicles in the first place (Mladenović et al., 2022). The vehicle's swiftness and speed but also their practicality allow riders to move quickly through congested streets, saving considerable time. All these reasons contribute to e-scooter adoption, but also positively influence users' mental well-being (Milakis et al., 2020). Similarly to urban cyclists (Singleton, 2019), many users find the experience of riding an e-scooter stimulating or entertaining, making it a vehicle with higher satisfaction rates (Grant-Muller et al., 2023). Hence, it is not surprising that the use of e-scooters has frequently been associated with recreational, tourism, or leisure riding (Weschke et al., 2022). Quintessentially, the contradiction we opened with - the excitement of speed without exercising- is what makes e-scooters a joyride.

Addressing the active living challenges posed by e-scooters requires a multifaceted approach. First and foremost, prioritizing public health requires a strategic shift towards promoting active transportation modes, like bikes and kick scooters. Implementing comprehensive bike safety training courses from childhood and offering incentives for companies to encourage active travel can significantly enhance overall community well-being. This should be accompanied by urban planning efforts that should emphasize pedestrian-friendly initiatives and optimize metropolitan transport networks. Managing private and motorized vehicles, regulating speed limits, and

implementing strategic transportation strategies are essential steps. Public awareness campaigns are essential to foster a culture of care in shared spaces. Encouraging mutual respect and consideration among pedestrians, cyclists, and e-scooter riders can mitigate conflicts and enhance the overall experience of urban mobility. Teaching responsible behaviour and promoting empathy among all road users will contribute significantly to creating harmonious public spaces. In essence, a combination of promoting active transportation, improving urban infrastructure, and cultivating a respectful and considerate culture in public spaces is key to addressing the challenges brought about by emerging modes of mobility like e-scooters. By embracing these measures, cities can create healthier, safer, more sustainable, and inclusive environments for all residents.

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