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# The rise of micromobilities at tourism destinations

Nick Davies, Luke Blazejewski and Graeme Sherriff

## Abstract

**Purpose** – This paper aims to identify the need for research that focuses on micromobilities at tourist destinations, charting their recent expansion and exploring development challenges.

**Design/methodology/approach** – This discussion draws together recent evidence and studies that are directly and indirectly related to the rise of micromobilities. It identifies and critically analyses the trend going forward, its potential benefits and challenges, and offers several areas of future study.

**Findings** – Micromobilities relates to a new umbrella term that includes, but is not limited to, walking, cycling (both existing modes), e-bikes and e-scooters (new modes). The proliferation of new micro-modes in urban zones at destinations can be viewed positively in terms of their potential to increase sustainable urban mobility and therefore destination attractiveness; but also negatively in terms of potential space issues, accessibility and sustainable implementation. Destination developers and stakeholders should therefore consider carefully how to successfully integrate micromobilities into sustainable transport systems.

**Originality/value** – This paper addresses a trend that is extremely prominent at many destinations but largely absent from academic study and that is also being described by commentators as key to sustainable futures at destinations.

**Keywords** Visitor economy, Destination futures, Future travel, Micromobilities, Shared mobility, Sustainable mobility

**Paper type** Research paper

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## Introduction

Many tourism destinations are putting greater focus on “micromobilities” to solve intractable urban problems caused by increased private car-use. Academic literature has not yet picked up on this term, but in industry, comment pieces by Deloitte, for example are hailing micromobilities as a “a tantalizing solution to address the first-mile/last-mile problem” (Zarif *et al.*, 2019). Urban mobility is an area of study that both sits outside of tourism development, and in addition directly affects it. It is well-known that congestion in destinations across the world creates pollution, carbon emissions and health and social problems related to pollution and sedentary lifestyles. In terms of tourism development, mobility can directly impact the tourist experience to the detriment of destination marketability. Page (2014, p. 152) among others, suggests that one solution is a greater focus on cycling as a sustainable mode of transport. There is also a growing body of literature on the walkability of tourist cities (Ujang and Muslim, 2014; Gorrini and Bertini, 2018). It is therefore pertinent to assess where destinations stand in terms of progressing policies to increase the use of micromobilities.

## What are micromobilities?

The term “Micromobilities” is still up for debate, but it generally encompasses the non-motorised modes of walking and cycling in addition to several fast-growing new forms of mobilities.

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Fishman and Cherry (2016) note that in recent years, electric bicycles (e-bikes) have become one of the fastest growing mobilities, mainly produced in China, Germany and The Netherlands, but they also caution that there is a significant need for further research. E-scooters are also exploding in usage as a new mode in many tourist cities. Smith and Schwietermen (2018) in their feasibility study on Chicago suggest that they are a cost-saving option for short-distance trips: “By filling a gap in mobility, e-scooters have the potential to increase the number of car-free households”. Although both e-scooters and e-bikes cannot be classed as non-motorised, they are considered a cleaner alternative to cars, and given that short car trips are a large part of the congestion and air pollution problem, they represent an intriguing potential solution to these problems and, by extension, for destination attractiveness.

### Micromobilities, tourist and the sharing economy

The implication of new modes (and existing modes in the form of non-powered cycling) for the sharing economy is perhaps more interesting. In this regard, tourists are an important market, as unless they have driven or are on a cycle holiday with their own bike, they are unlikely to have their own transport when visiting a destination. Traditionally the more environmentally friendly options for tourists – as opposed to hiring a car – include public transport, walking and bike hire. Although rarely mentioned in the tourism literature, taxis are also an important component of a tourist transport system (Waryszak and King, 2000). While Uber and similar taxi services are considered part of the sharing economy, these are fundamentally car trips. These trips, if of an appropriate distance (for example under 5 miles), may be switched to more sustainable modes.

Bike-sharing schemes have been on the rise in cities across the world over the past 10-15 years and have been implemented in both docked models (where the bike has to be returned to a particular location) and dockless (where the bike can be used anywhere in a given geographical region) (Sherriff *et al.*, 2018). The recent explosion in this area has mainly been the result of large private companies, such as Mobike and Lime, introducing large numbers of human-powered bikes at destinations. These now appear to be receding and being replaced by e-scooters and e-bikes. In Lisbon this year, for example, there were eight different start-up companies providing e-scooters (both docked and dockless) at a low-cost, with tourists as a key user-group (Lisbonguru.com, 2019).

### Challenges of implementing micromobilities

Despite these schemes appearing to be a sustainable solution on the surface, there are numerous reasons why they may not be a perfect answer to solving the tourist mobility problem. There is a significant question regarding the spatial coverage of destinations for different transport modes. This question centres on how to allow space for micromobilities, given that most infrastructures are primarily car-centric or pedestrianised. With extra modes travel requiring space, the configuration of roads, walkways and cycle lanes may be compromised. Success stories in which car-free areas have been embraced and have become more walkable to the benefit of the city as a tourism destination do exist – Barcelona is an example (Guardian, 2019). The exclusion of cars in central areas in Copenhagen, a “city of cycling”, has been attributed to a culture that embraces the benefits of cycling as opposed to those of the car (Gössling and Choi, 2015). However, the physical infrastructure also raises questions on mixing different micro-modes together. The conflict between cyclists and pedestrians in shared space is not a new phenomenon (Cessford, 2003), with the walker at a slower speed more vulnerable, but the addition of e-mobilities, which are potentially faster and heavier, has potential to raise fears around safety (Trivedi *et al.*, 2019). Dockless bikes and scooters have also been referred to as “litter”, when left in pedestrian areas – which goes against the clean, anti-pollution image being promoted (Chen, 2019). Because of the law there, e-scooters are illegal both on pavements and roads in the UK (BBC, 2019). The rapid urbanisation and densification of many destinations will always compound these issues.

In addition to physical infrastructure, technological trends have also underpinned the potential for increasing micromobilities. They are mainly app-based and demonstrate potential for use of big-data as destinations become smarter. However, the use of apps for many sharing schemes can be problematic for tourists, as they ask you to sign up, give a deposit and then transfer money onto an account which gets deducted for each trip. This is quite a lengthy process and may be off-putting. Additionally, there have been potential issues with batteries catching fire ([Guardian, 2018](#)) and claims being made that the technology is unsustainable. This latter claim reflects concerns about the high carbon dioxide emissions resulting from transportation of the raw materials, the low battery depletion limits that result in extra transportation to pick scooters up each day, the emissions associated with battery production and recycling and the battery being a source of acidification ([Hollingsworth et al., 2019](#)).

### Enhancing the environment for micromobilities

Developing friendlier infrastructure for micromobilities and providing and promoting more sustainable modes of travel is a dual goal for the everyday running of municipalities as well as those focused on developing tourism. The success of schemes to make walking and cycling more attractive to tourists is rooted in planning and policy in destinations and the wider regions and is dependent on a greater focus on placemaking and creating healthier, more liveable spaces. [Zarrili and Brito \(2013\)](#) used questionnaires on tourist mobility to identify the linkages between the quality of the tourist experience and quality of life, for both residents and tourists. High-scoring variables included safety, local population, information, traffic and cleanliness. Public transport was a key variable: the authors suggest that a well-functioning network can fulfil the function of “making accessible peripheral urban areas of tourist interest and expands the sphere of action of the tourist” ([Zarrili and Brito, 2013](#), p. 212), and that it directly effects the experience of the visitor. Clearly, the provision of good public transport is key to the development of micromobilities and vice-versa. A wider point may be made about the planning policies of individual locations to place more importance on infrastructure and services for walking and cycling than on provision for motorised modes, but in doing so resolve the conundrum of how to integrate the “middle ground” modes, which are both micro in scale and motorised.

### Conclusions

Ultimately the successful implementation of micro-mobility schemes is the responsibility of the civil transportation authorities, planning and policymakers at individual destinations. For destination marketers and managers, micromobilities represent an intriguing and significant route to achieving reductions in congestion, better mobility options at the destination and destination attractiveness that, if managed correctly, can enhance the visitor experience. Providing a greater range of mobility options to move around destinations over smaller distances, and integrating them with good quality and attractive public transport, may make places less congested, more sustainable and more desirable. The provision of information, including but not limited to apps geared towards individualised travel planning has to be accessible to tourists and clearly demonstrate the range of options to travel that are available. Technological considerations are also significant: for example, caution should be applied to ensuring the manufacturing process of newer e-mobilities is actually low-carbon.

The configuration of spaces to accommodate a greater range of model options, travelling at different speeds is of key importance. Some of the denser destinations may struggle without apportioning car-free space. We therefore recommend that, in terms of future study, case studies of both good and poor practice are necessary. There is a need to examine planning policies more widely at destinations to understand how the tourist dimension plays a part in these evolving transportation systems. In addition, with a greater focus on shared active mobilities, tourism study can understand more about destination planning and development.

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