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## Lift-share using mobile apps in tourism: The role of trust, sense of community and existing lift-share practices

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#### ABSTRACT

This paper explores the use of mobile technology to enable lift-share in the leisure travel domain of camping tourism. Here mobile devices can connect a user community on the move undertaking non-routine trips and reveal temporal and spatial connections suggesting lift-share opportunities. Data were derived from a questionnaire survey (n = 339) administered at campsites in a rural tourism destination in Dorset, UK. Analysis focuses on the role of trust, sense of community and existing lift-share practices in willingness to engage in lift-share and other forms of share use of private vehicles using a mobile app. The findings indicate that previous experience of lift-share and sense of community both have a small effect, however, trust had no effect on the desire to lift-share. Analysis indicates trust is generated through community participation rather than being a precursor to taking part. Lift-share app developers and providers need to design strategies which build trust in the system using peer-to-peer ratings, where appropriate, and establishing user etiquette through user champions and visualising successful exchanges.

#### 1. Introduction

The dominance of individual car travel for utility and leisure trips is leading to a range of environmental and societal externalities including greenhouse gas emissions, localised pollution, congestion and social exclusion. At a theoretical level research has explored how societal structures have co-evolved with the car (Shove et al., 2012) and to a large extent tied people into car use which has become habitual (Schwanen et al., 2012). Given high car dependence and 'lock-in' (Randles and Mander, 2009) to this mode, it makes sense to explore desirable transport futures where cars can be used more efficiently. Car sharing schemes, where drivers access shared vehicles, is one strategy (Kent and Dowling, 2013), a second is lift-share in privately owned vehicles. This paper draws on data from a project that designed and tested a mobile app primarily designed to facilitate ad-hoc lift-share and other forms of shared use of private vehicles in the leisure setting of camping tourism. The aim is to understand the role played by trust, sense of community and existing engagement in lift-share in individuals' willingness to share private vehicle resources using a mobile app.

Camping tourism is predominantly car-based and growing in importance on the European scale (Mikulic et al., 2017). It is a travel context which is normally considered non-routine, though shared temporal and spatial routines exist (Dickinson et al., 2013). Given

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Table 1
Forms of exchange in Lift-share.

Form of exchange	Explanation	Examples
Commercial exchange	A financial exchange for commercial gain focused on providing a service	Uber (https://www.uber.com) Lyft (https://www.lyft.com)
Reciprocal exchange	Peer-to-peer. Relies on established social connections. Participants take it in turns to give lifts or share travel costs	Sharing lifts to work or to routine leisure activities with friends
Negotiated or pseudo-exchange (Belk, 2014)	Peer-to-peer. Small economic rewards are available for the lift provider to cover costs	BlaBlaCar (http://www.blablacar.co.uk)
Generalised exchange	Peer-to-peer. Users broadcast lift offers or requests to a community of users who agree to share car resources	<b>6ST Travel</b> (http://www.sixthsensetransport.com/mobile-apps-and-platforms/6st-travel/)

low vehicle occupancy rates (1.56 in the UK in general, 1.7 for leisure and 2 for holidays and daytrips (Department for Transport, 2016) and 1.45 in Europe (European Environment Agency, 2016)) there is considerable scope for lift-sharing. The focus here is on short trips. While most gains might be made from longer distance trips, a surprisingly large proportion of greenhouse gas emissions are associated with journeys of less than 10 miles (40% in the UK, Department for Transport, 2011) and there is scope for people to develop new travel skills and habits for short trips. The paper makes four key contributions to the field: (i) the study focuses on nonroutine trips in lift-share; (ii) it explores lift-share where there is no financial gain and the users vary as tourists come and go and potential lift-sharers are therefore less likely to be known; (iii) it extends existing work that has looked at demographics, vehicle access and motivational factors in relation to lift-share (Delhomme and Gheorghiu, 2016) to understand better the trust and community factors that also play a role; and (iv) the paper informs opportunities to develop lift-share.

#### 2. Background

#### 2.1. Lift-share, trust and community

The ubiquitous connectivity of smartphones has provided new scope to for individuals to make opportunistic connections with others while on the move. A variety of mobile apps have been developed that aim to facilitate lift-share. To date these apps largely replicate existing internet tools where users input their travel parameters, however, apps have the capacity to extend internet tools by utilising real-time location based data and also have capabilities to record, understand and predict users' spatial patterns over time. Increasingly lift-share apps will be able to respond to the more ad-hoc needs of users and realise connections between users that would otherwise not be visible. These raise wider issues regarding trust in the community of users.

Various forms of exchange exist for lift-share (see Table 1). Kent and Dowling (2016) refer to this as 'cars on demand' and categorise these into peer-to-peer and commercial operation. To date the most developed mobile app solutions for cars on demand have focused on commercial exchanges, such as the Uber taxi app, however, experimental apps based on peer-to-peer lift-share are emerging that are beginning to exploit real-time location based technology (Davies et al., 2012). Questions remain as to the wider success of these and in what contexts they will work best. Given the potential gains from sharing vehicles (Fremstad, 2014), this is an important area for research.

This study focuses on generalised exchange which extends reciprocal exchange and has emerged more widely with the growth of internet communities (Table 1). In a generalised exchange community a lift-taker may never directly reciprocate to the lift-giver, but may reciprocate to another member of the community. This removes the dyadic relationship encountered in traditional reciprocal lift-share and calls for new theoretical perspectives.

Through social capital people gain access to various forms of support, including the material support needed to share vehicle resources (Carrasco and Cid-Aguayo, 2012). Social capital is derived from belonging to communities, though new forms of virtual community have evolved (Wellman et al., 2003) with implications for access to forms of support (Hampton, 2016). Belonging to a community is not always positive for all and can lead to restricted access to certain resources (Julien, 2014). For example, tourism spaces might emphasise established friendship groups which limit wider social involvement (Dickinson et al., 2017a). Sense of community and commitment to that community is therefore likely to be significant to lift-share.

Trust is a core concept in social capital aligned with civic engagement (Putnam, 1995) and community participation (Boeckmann and Tyler, 2002). Trust is important to lift-share communities and BlaBlaCar recognise trust as one of their challenges (Rose and Wheeler, 2017). It is a psychological barrier that has been shown to be significant in other aspects of mobile technology use (Nikou, 2015). Trust exists in two forms: generalised trust applies to a community as a whole and personalized trust which relates to known individuals. Both play a role in lift-share depending on whether the exchange is reciprocal, between known individuals (personalized trust), or negotiated/generalized exchange between a larger community (generalized trust). Trust can also be further divided into categories (McKnight et al., 1998) with the concepts of honesty and benevolence having most applicability to generalized exchange. Honesty is the belief that a party will keep his or her word, fulfil promises and be sincere. Benevolence is the belief that one of the parties is interested in the wellbeing of the other without intention of opportunistic behaviour and is motivated by a search for a mutually beneficial relationship (Flavián et al., 2006). Both are important to lift-share contexts as users express concerns about lift-offers being undertaken as agreed (honesty) and that the other party will not exploit the lift-share context (benevolence).

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