

## Traveller Information Services - Assessing Barriers to Their Use

'Traveller Information Services – Assessing Barriers to Their Use' is a 3-year research activity which forms part of the five-year FUTURES research programme that began in April 2004. FUTURES is one of four transport research consortia within the Engineering and Physical Sciences Research Council's (EPSRC) 'Towards a Sustainable Urban Environment Programme'. The aim of FUTURES is to investigate and promote the role of new technologies in achieving sustainable urban mobility. Within FUTURES, CTS is working with the Transportation Research Group at the University of Southampton and the Institute for Transport Studies at the University of Leeds alongside a number of stakeholder partners.



### Background and Justification

Transport policy in many countries has placed increasing importance on influencing people's mode choice. Accordingly, there has been a continued growth and investment in the provision of public transport (PT) information services. A multiplicity of such services now exist using a number of media, such as (mobile) Internet, (mobile) telephone, face-to-face and paper. They can 'empower' individual travellers to make more fully-informed choices about where, when and how they travel.

Despite this abundance in traveller information provision and the apparent benefits of its use, many people do not (regularly) consult information services to review and determine key journey decisions (notably regarding mode of travel). Moreover, relative to total travel, usage of PT information services can seem disappointingly low and it seems that awareness of them does not necessarily lead to their use. If information services are being under-utilised it follows that their full potential is not being realised. Thus, what affects the use of PT information has become a key consideration.

### Objectives

The purpose of this research is to respond to the experiences of, and growing concerns amongst, information service providers, notably in urban areas, by providing a better understanding of the factors affecting pre-trip public transport information use. Public transport information services for bus, train, coach, metro, and tram are studied. The specific research objectives of this FUTURES activity are as follows:

- to identify factors that govern individuals' propensity to use pre-trip public transport information in general and via Internet in particular;
- to identify measures that have the potential to address and overcome barriers to public transport information services' use;
- to produce guidelines and recommendations for information service providers.

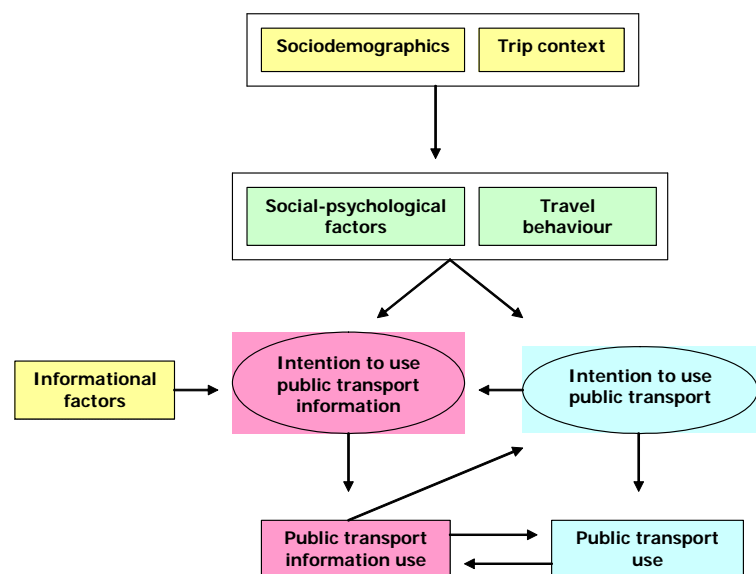


Figure 1 Factors affecting pre-trip public transport information use

Some of the factors that are explored in the research are described below:

- social-psychological factors* entail psychological characteristics (e.g., attitudes, norms, habits), and factors relating to social context (e.g., social learning);
- trip context* refers to aspects such as familiarity, distance, and urgency of trips; and
- informational factors* contain service accessibility, usability, and content.

## Methodology

---

In-depth interviews and focus groups were held in Bristol, Stockport, and Manchester (United Kingdom) in February/March 2007. These involved members of the public, exploring assumptions about factors influencing the (non-)use of PT information services and discovering new factors. Survey work has followed this qualitative phase in order to assemble a more extensive dataset across a wider set of individuals. Detailed questions were asked about the (non-)use of various PT information sources, travel behaviour, habits, and travel attitudes. A random sample of 10,000 households in Bristol (5000) and Greater Manchester (5000) were sent a survey in December 2007. The response rate was 13% with a return of 1327 questionnaires. Structural Equation Modelling (SEM) has been used as method of analysis.

## Results qualitative research

---

The following factors seem to govern individuals' propensity to use pre-trip public transport information in general and via Internet in particular:

- the intention to use public transport (which is affected by trip context and by experience with using public transport);
- the perceived level of knowledge about public transport (e.g., about the number of interchanges, travel duration, journey times);
- attitudes, perceived behavioural control (confidence in obtaining and using information);
- level of Internet experience;
- trust in online travel information; and
- positive experiences with online travel information.

It seems that public transport information is consulted whenever it is likely one is going to travel by public transport, unless the trip is local, services run frequently, or if there are no time constraints.

## Results quantitative research

---

The results of the quantitative research show that Internet dominates as the common default PT information source. Moreover, people appear to exhibit habitual behaviour in terms of their information sources of preference. Across various trip types (e.g., business, leisure), approximately the same factors are related to PT information (non-)use. Travel behaviour has the strongest relationship with information use, but travel attitudes, informational factors, social context, and sociodemographics also affect PT information use. Word-of-mouth (i.e., having received a recommendation to use a certain PT information source by people one knows) positively affects the use of PT information. The willingness to travel by public transport and public transport use affect PT *information* use more

strongly than vice versa. Also, the findings suggest that consulting PT information does not strongly affect mode choice. Past experiences of information use, current travel behaviours and attitudes towards both information and transport options are interacting with one another and can become self-reinforcing for better or worse.

## Conclusions

---

A more concerted effort is needed to influence people's willingness to travel by public transport. PT information should, nevertheless, be part of such an effort, since awareness of and information about public transport options is still a necessary precursor for any potential use of public transport. There are important implications for marketing efforts by information service providers: rather than solely directing attention to PT information, it might be a better strategy to simultaneously aim to promote public transport use and awareness of travel information availability. Investment is required in both public transport services alongside information services.

## Stakeholder Partners

---

The following FUTURES stakeholder partners are interested in working with the universities on this research:

- Greater Manchester PTE (GMPTE)
- Department for Transport
- Leeds City Council
- Hampshire County Council
- JourneyPlan
- Liftshare
- Welsh Assembly Government
- ITS UK

## Contact Details

---

Principal Researcher:  
Dr Sendy Farag  
[Sendy.Farag@uwe.ac.uk](mailto:Sendy.Farag@uwe.ac.uk)  
Tel: +44(0)117 32 81178

Lead Investigator:  
Professor Glenn Lyons  
[Glenn.Lyons@uwe.ac.uk](mailto:Glenn.Lyons@uwe.ac.uk)

---

Centre for Transport & Society  
Faculty of the Built Environment  
University of the West of England  
Frenchay Campus  
Coldharbour Lane  
BRISTOL BS16 1QY  
UNITED KINGDOM

[www.transport.uwe.ac.uk](http://www.transport.uwe.ac.uk)

---