

# Twitter and Passenger Disruption (TaPD)

## Summary

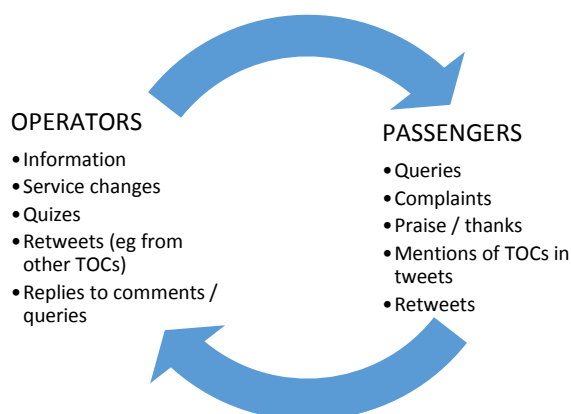
Twitter and Passenger Disruption (TaPD) is feasibility project to model how Twitter is used by passengers and transport operators during rail disruption. The aim is to inform cross-industry strategy and processes for passenger information during disruption. The project will also deliver an understanding of future research and technology requirements for transport disruption management where social media plays a role.

TaPD is funded by IMPETUS, a joint venture between the Universities of Nottingham and Leicester, and the Transport Systems Catapult. TaPD is sponsored by ATOC and runs through to September 2015.

## Background

Managing rail disruption is critical to the success of the railways. Minimising the effects of delay increases passenger confidence, and ensures the rail network returns to full service as quickly as possible. These are important considerations as we look to maximise rail capacity and patronage as part of our sustainable transport future.

A major source of dissatisfaction during disruption events is the quality of passenger information. Passengers demand to know not just the duration of the delay, but alternatives and the cause for the disruption. Giving passengers prompt, accurate and meaningful information allows them to feel in control. It also allows transport operators to influence passenger movement and choice –to give a better experience and, in the most severe events, to manage factors such as station congestion and overcrowding on trains.



Passengers and transport operators alike are turning to social media, and specifically Twitter, as a channel for real-time travel information. Early analysis shows that passengers are tweeting about a number of aspects, good and bad, of their travel experience. At the same time, transport operators – Network Rail, Train Operating Companies, National Rail Enquiries – are increasingly looking to use Twitter to communicate messages to passengers, particularly during disruption. Interestingly, this is often not a ‘broadcast’ of information, but a dialogue between passengers and dedicated Twitter teams within the transport control centres. Being able to respond effectively through Twitter, and to recognise both the opportunities and limits of Twitter as a channel, is now a key part of disruption management strategy.

No two incidents are alike. They vary by location, by time and by cause. Work to analyse these events shows how the nature of the disruption influences the spread and severity of the event, as well as factors like how long it might take to fix, whether people need to go out on track, and what kind of alternative plan

needs to be put in place. These are variable and complex processes involving different actors, and all of the characteristics of a disruption shape the information passed to passengers.

The question is will there be predictable patterns in the way disruption characteristics shape the nature of Twitter communication? If we have a better understanding of how disruption processes link to Twitter exchanges, it will be possible to improve processes and propose technology that will allow transport operators to respond more rapidly and effectively through Twitter during major disruption events.

## Aims and benefits of TaPD

TaPD is taking two approaches to understanding the relationship between Twitter and rail disruption. First, TaPD is using interviews, observations and workshops with operational staff and strategists from across the rail sector. This work is highlighting the major benefits, barriers and gaps in the use of Twitter to support disruption management. The output of this work will be a cross-industry understanding of how Twitter is being used, and ways to maximise its benefits for passengers. In parallel, data around specific disruption events is being captured to map the events and processes taking place within disruption to the volume and content of Twitter traffic during those events. The output of this work will highlight how different types of incident characteristic shape Twitter exchanges – how do they vary by the type of incident, or the stage of incident management.



Together, these two streams of work are expected to deliver

- Guidance on the best use of Twitter during different types of disruption event, including scope and integration of Twitter with other information channels
- Overall guidance on good practice – for processes, technology and organisation – to use Twitter during disruption events
- Identification of future technology requirements for more effective Twitter handling during disruption
- Gap analysis and requirements for future research into Twitter usage in all aspects of the rails

## Stakeholders and timescale

TaPD is funded by IMPETUS, a collaboration between The University of Nottingham, University of Leicester, and the Transport Systems Catapult. TaPD is being sponsored by National Rail Enquiries at the Association of Train Operating Companies, with input from across the rail sector.

TaPD is being led by Dr David Golightly. David is Senior Research Fellow at the Human Factors Research Group, The University of Nottingham. His background is in the relationship between expertise, problem solving and technology design, with a view to how that research can improve transport operational capacity, and traveller experience. He has led work in the rail sector funded by Network Rail, Innovate UK and the EU in areas such as traffic management, signaller expertise and passenger information apps.

TaPD runs until October 2015.

For more contact [David.Golightly@Nottingham.ac.uk](mailto:David.Golightly@Nottingham.ac.uk)