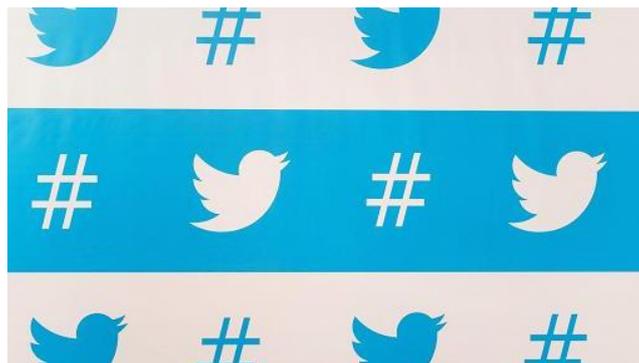


Twitter Trains of Thought

An analysis of how social media sentiment can be used to transform rail services for commuters

Part One: A new era of online accountability



A research report prepared by



Introduction

The rail industry is no stranger to criticism, from repeated questions around the quality and frequency of services to the regular outrage at fare increases, providers are all too aware of the importance of public opinion. Previously, commuter complaints have been issued and dealt with through written letters and annual surveys, meaning that concerns can be dealt with in a system free from public view.

The social media revolution has changed this model beyond all recognition, offering commuters a free, interactive and real-time platform for the publication of grievances which is open to millions of other users.

Sites like Twitter, which currently attract an estimated average of 271 million users every month¹ are quickly becoming the preferred platform for the airing of customer complaints. The problem is inflamed by an increasingly sophisticated mobile phone market, where high quality phone cameras can quickly capture, record and share railway delays and incidents online at the touch of a button.

In response to this newly created world of instant social media response, the leading rail providers have quite correctly created their own Twitter accounts. These feeds are used to share delay information, interact with customers and demonstrate an open and honest approach to criticism.

Using sophisticated Twitter sentiment analysis from data obtained from the whole of 2014, this report examines how successful the rail providers have been at achieving these goals and makes recommendations about how social media can be used as a resource to gather information for shaping and improving services. The findings, obtained using our specific algorithm and keyword sentiment analysis tools, will make startling reading for the rail industry.

Above all this report calls for inclusion, putting users at the heart of decision-making and providing them with a platform to make their voices heard.

Daren Wood, director, Commute London

¹ BBC – Twitter user data <http://www.bbc.co.uk/news/business-28554687>

About Commute London

Commute London is an organisation founded by a team of data scientists with expertise in the rail industry, independent from the rail operators. The research team is a subsidiary of DeltaRail Group Ltd, the British signalling technology company.

We campaign for greater accountability from the rail industry towards commuters, by analysing Twitter sentiment and sharing the findings via our specially designed Commute London app.

By analysing Twitter in real-time, they can advise passengers and staff of problems likely to impact their services before, during and after the official sources have reported an incident. These impacts are often felt by customers long after the official sources declare services have been restored.

Our service monitors Tweets from commuters who are using the railway, checking for common themes and the sentiment being expressed. Comparing this to a typical day we create a simple feedback and service indicator.

Methodology

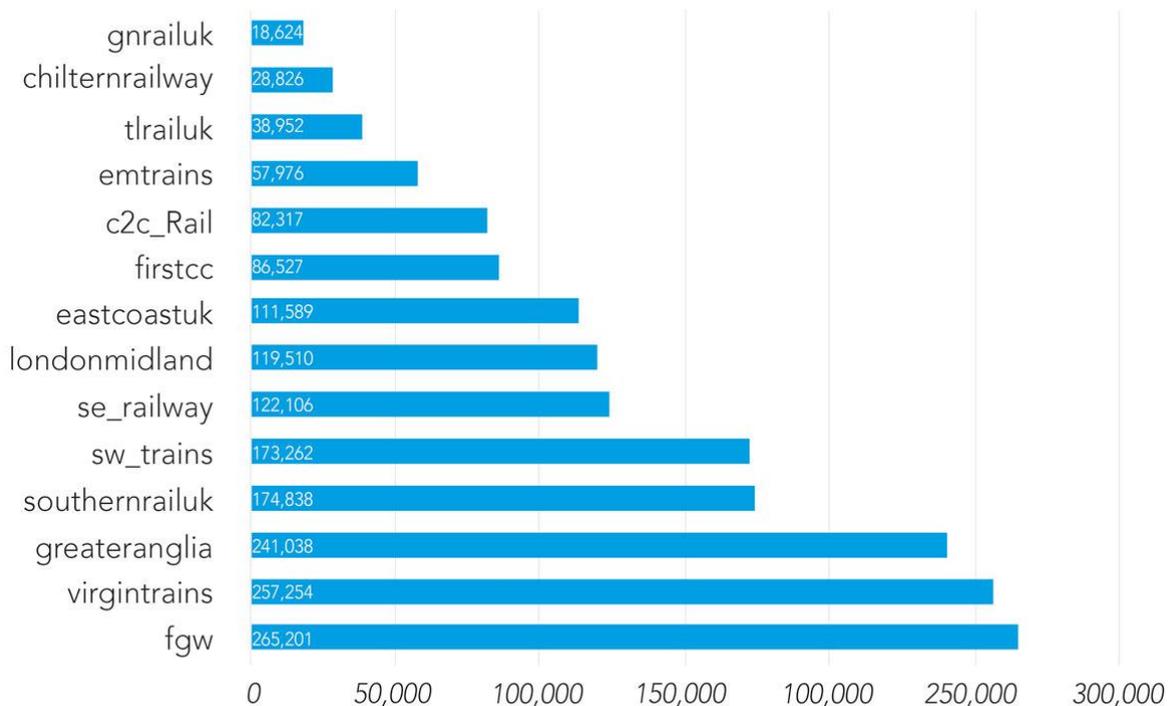
The Commute London data science team analysed tweets from commuters during the year of 2014. The data was sourced using the Commute London algorithm, developed by the data science team, which captures tweets using a list of key words and analyses the sentiment.

A Twitter Popularity Contest?

When it comes to commuter responsiveness, our analysis shows that there is a significant gulf between the levels of public engagement between the main rail providers. Our analysis of 2014 Twitter data showed that there were a total of 1,778,090 tweets directed at the fourteen rail providers examined in this report over the last year.

In 2014, First Great Western's @fgw Twitter handle received 265,201 tweets from commuters, closely followed by Virgin Train's @virgintrains on 257,254 and Greater Anglia @greateranglia 241,038.

2014 total number of tweets at rail providers



Source: Commute London data analysis

There are many factors which influence the levels of activity between Twitter handles and commuters, including capacity, frequency of the journeys available and the general level of company awareness from the public. These findings should serve as a platform for social media strategists and customer service directors to acknowledge the fact that there is room for improvement around Twitter engagement policies, regardless of their organisation's position in the league table.

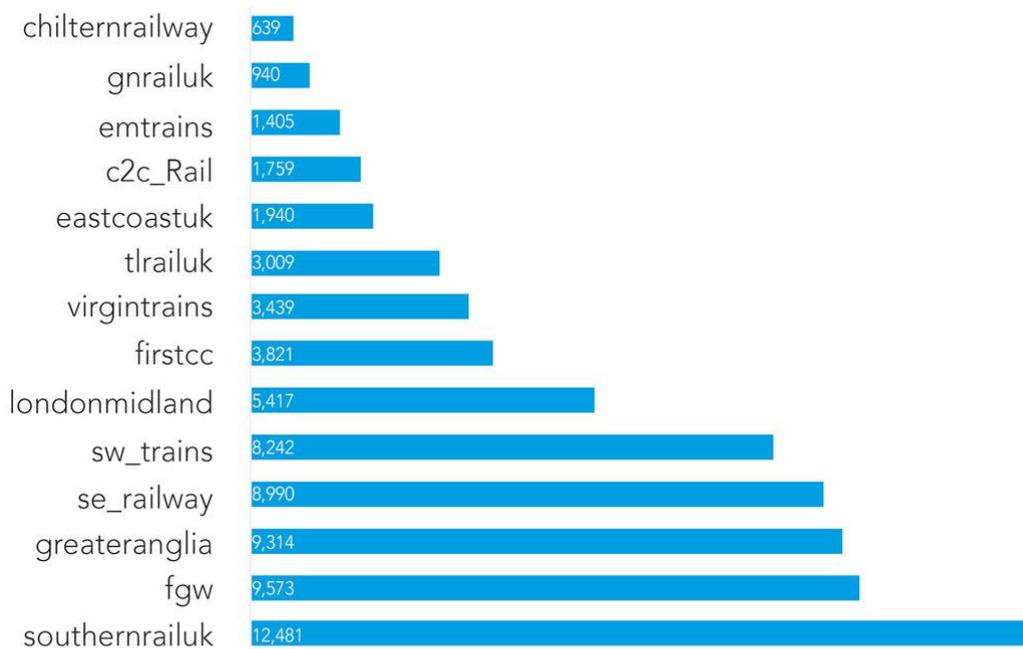
Social media channels are also an effective medium for dealing with customer complaints around delays and issues with services. The ability of rail providers to engage with commuters instantly with service information should be utilised to its full potential to ensure customers feel they are being listened to and their concerns are addressed.

Invitation to Criticise Cancellation

Our team of data scientists wanted to examine the volume of tweets directed at the 14 rail providers which bring people into London, looking at Twitter handles which contain references and complaints around cancellation. To obtain this data, our algorithm focused on key words including “cancel”, “replacement” and “bus replacement” and the data summary can be seen below.

Our research showed that there were 70,969 tweets using cancellation sentiment directed at rail providers in 2014. Of this total highest number of tweets using cancellation sentiment were directed at Southern Rail @southernrailuk at 12,481, followed by First Great Western @fgw at 9,573 and Greater Anglia @greateranglia on 9,314. Southern Rail’s 12,481 cancellation tweets from commuters represents 18 per cent of all tweets in this category.

Cancellation Tweets



Source: Commute London data analysis

It is unsurprising that complaints around transport delays are one of the highest volume tweets captured in our research. Data released by Network Rail has revealed that there were an estimated 200,000 cancellations according to research by the TSSA transport union.²

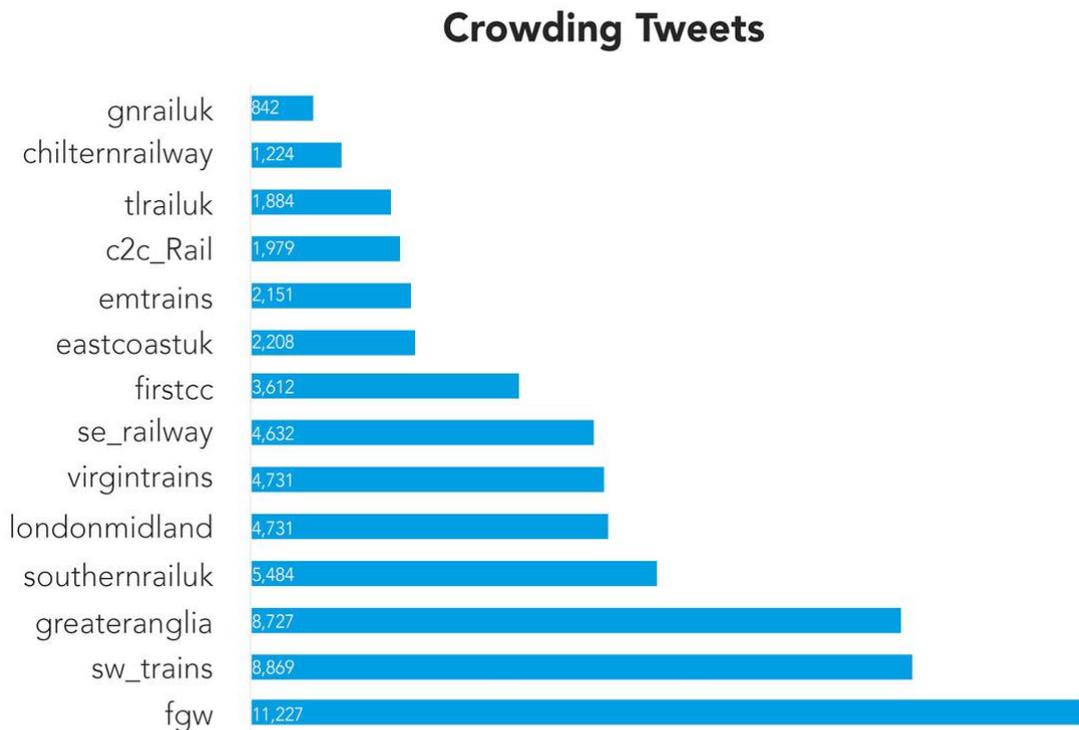
² Evening Standard – TSSA Union Data <http://www.standard.co.uk/news/transport/rail-commuters-hit-by-200000-cancellations-9740674.html>

Incidents of train cancellation are a major cause of concern for commuters, disrupting the working day and fuelling overcrowding on other services.

With this in mind, rail providers must use their social media channels to share alternative route information whenever possible.

A Crowded Marketplace

Overcrowding is frequently cited as a cause of delayed services, our data table below provides insight into the train providers most frequently criticised for crowded services. To source these tweets, our team developed an algorithm which identified language such as “crowd” “sardine” and “no seat”. From the data obtained, we have established that First Great Western received the most online criticism for overcrowding on its services with 11,227 tweets referencing crowding language in 2014.



Source: Commute Club data analysis

There were 11,277 tweets using crowding language directed at the @fgw First Great Western handle in 2014. Followed by 8,869 for South West Trains and 8,727 for Greater Anglia.

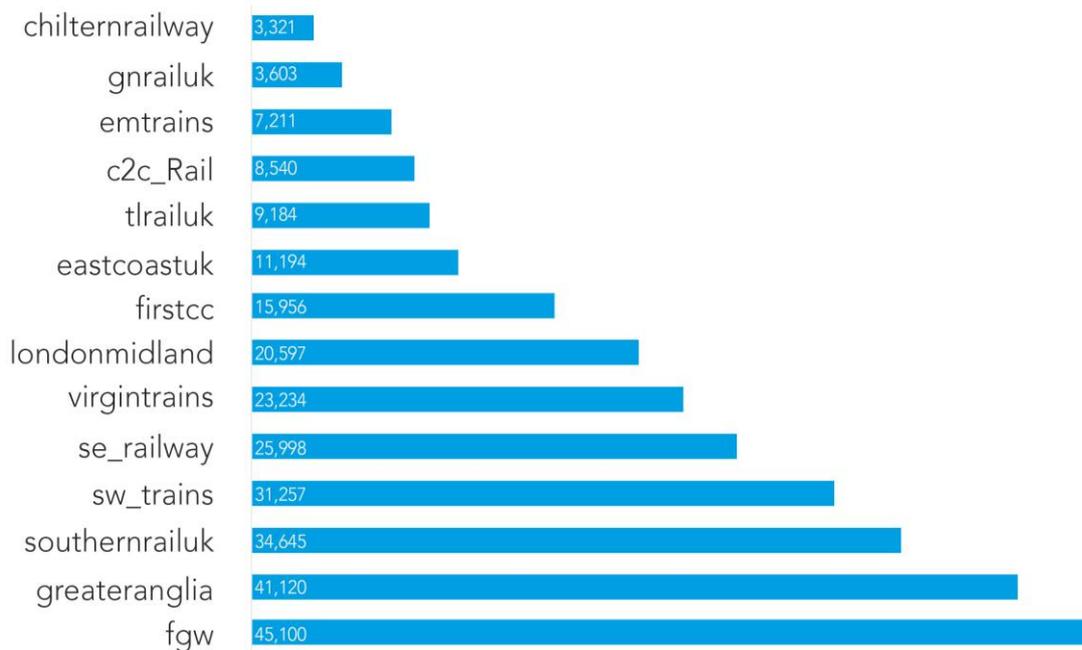
Overcrowding on train journeys is not only inconvenient for passengers, it is potentially highly dangerous. It is therefore vital that rail providers ensure that this data is properly analysed to identify hotspots and take action. This could include setting targets to reduce the number of customer complaints via social media, this means adding extra carriages or ensuring better information is shared through Twitter about alternate routes available.

As the country's population continues to grow and the number of social media users increases, complaints on this issue are likely to rise dramatically. It is necessary for rail companies to ensure their social media policies are reflective of the needs of their customers and sophisticated enough to capture feedback, which can be used to improve services.

Giving Way to Delay?

Train delays are a major concern for commuters, disrupting the working day and triggering congestion on the platforms and at the station. Our analysis shows that there were hundreds of thousands of complaints regarding rail delays impacting commuter journeys. In 2014 we tracked 280,960 tweets are the rail providers using sentiment such as “delay”, “late” and “stuck”.

Delay Tweets



Of the 280,960 tweets in this category, First Great Western's @fgw feed received 45,100 tweets using delay language, Greater Anglia's @greateranglia received 41,120 and Southern Rail received 34,645.

Social media channels provide the perfect opportunity for providers to issue public apologies for delays and to ensure commuters are given the correct information about the extent of the delays impacting their journey. Taking account of the human impact of delays on the railway also gives operators a chance to shape their recovery and resilience plans around the needs of users. It also offers the chance for clear and open communication about how and when consumers can claim any compensation due to them.

Conclusion

This research paper highlights the use of social media by commuters to alert rail providers to the challenges and problems experienced on current services in 2014. The industry still has a long way to go before it can achieve the levels of satisfaction it would like to achieve.

Social media sites like Twitter provide an instant, real-time channel to assist in this process winning over customers through open and honest communications.

Recommendation one

Rail providers improve and optimise their social media channels for two-way engagement and analysis. Twitter should be viewed as a data-rich pool from which to capture and analyse customer intelligence. This data should be shared with decision-makers within the company and used by customer service teams to improve response times to complaints.

Recommendation two

By making better use of social media channels, rail providers have an opportunity to engage and build dialogue with passengers about the services they offer. By using this channel to form positive, open dialogue with commuters, they can deliver more informed and accurate service updates. The more followers they have, the more access to insights and data they can obtain, enabling them to develop strategies to ensure the commuter community is properly engaged with on a regular basis.

Recommendation three

Commuters need to make greater use of social media for engagement with their rail providers. Twitter should be seen as a medium for legitimate service feedback and not simply a forum for frustration and criticism. Clear, factual engagement around rail delays will enable rail companies to take the necessary steps for improvement.

For more information please visit <http://www.commutelondon.com/>

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