

WHITE PAPER

A Twitter study of the UK Rail Industry, 2019



Wordnerds loves Rail

Wordnerds works with a wide range of sectors, from Big Business to local SMEs, from Local Government to Utilities. Now, please don't tell the other sectors this, or it will get awkward.

We love rail. We travel on trains across the country and beyond, getting work done or switching off our nerdy brains while we make it to London meetings, chase down Scottish leads or service Mancunian customers. Rail makes our business work.

We also love rail because the challenges are unlike any other sector. Or rather, every other challenge from every other sector all comes together in rail.

Rail companies have to deal with the brand reputation management of a big business, the personal customer relationship of a local SME, the complaint volume of a Local Government Authority, and the regulatory oversight of a utility company.

Wordnerds use customer service data, reviews and social to benchmark network performance and understand CX trends for some of the biggest rail companies in the

UK. We find the elements of each company that makes a delighted customer, and what sends them into rage spirals.

When Wordnerds won the Innovation of the Year at 2018's World Rail Festival, it was because the industry saw the potential in finding new ways to experience the true voice of the customer.

We hope to work with more of you soon. In the meantime, we'll see you on the train.



Happy WRF,

Pete Daykin
CEO, Wordnerds.

Table of contents

The Wordnerds Sentiment Index	3
What customers like and dislike	6
The Big Table - Large Providers	7
The Big Table - Smaller Providers	9
Provider Breakdown	11
Caledonian Sleeper	11
Chiltern Railways	12
Coast2Coast	12
Cross Country	13
East Midlands	13
Grand Central	14
Great Northern	14
Greater Anglia	15
Great Western Railway	15
Hull Trains	16
LNER	16
London Northwestern	17
Merseyrail	17
Northern Rail	18
Scot Rail	18
South Western	19
Southeastern	19
Southern Rail	20
Thameslink	20
TransPennine Express	21
Transport for Wales	21
Virgin	22
West Midlands Railway	22
Anatomy of an incident	23

The Wordnerds Sentiment Index

This report is about how customers feel about their rail provider. We've taken a representative sample of tweets from every Rail Company in the UK, and established - based on the data - how their customers *really* feel.

In order to do this effectively, we use a revolutionary new way of approaching sentiment – the Wordnerds Sentiment Index.

You may have previously used a sentiment analysis tool. If you have, chances are you were singularly unimpressed. In the old days, sentiment was simple. You had a dictionary of happy words and sad words, and you'd see if any words in the text were on your happy list or on your sad list.

It was simple. But it was also stupid. It didn't work, and it corroded a lot of people's trust in sentiment metrics, even though how customers feel was the one thing people wanted to know.

A totally different approach was needed.

Wordnerds' state of the art sentiment score is calculated in a revolutionary new way. Our "Contextual Word Embedding Model" is an AI supercomputer trained to actually understand the meaning of sentences and measure what people like and dislike.

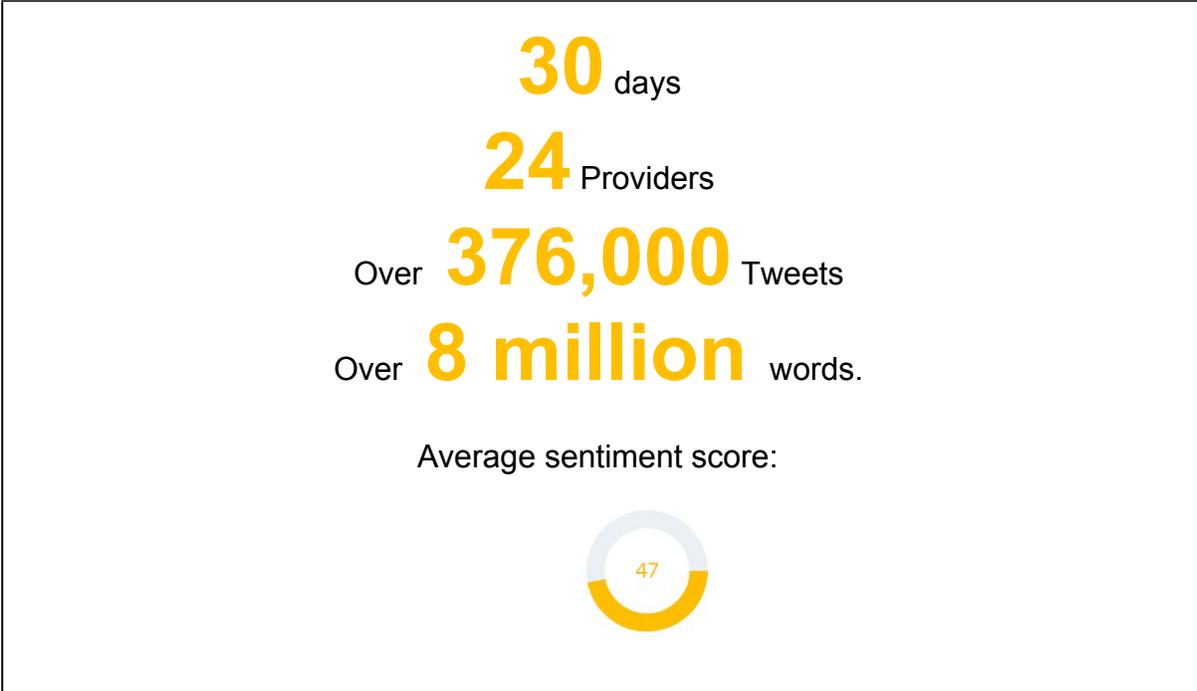
But we also wanted the index to show the direction of travel. A company that has been declining all year, we feel, shouldn't get the same score as somebody on the up, even if their average score over the year was lower.

We therefore used a weighting model to the sentiment data as well, paying more attention to the data points that happened more recently.

The result is the Sentiment Score.

But the most important question is *why* each supplier scored what they did. And for that, we need to go even deeper.

The Twitter Report In Numbers



Wordnerds and sentiment accuracy on Twitter data in comparison with other Language Processing Engines

Platform	% Accurate	% Within One
Wordnerds	59%	93%
Google NLP	45%	78%
IBM Watson	40%	53%

5-split sentiment analysis tests (angry, sad, neutral, happy, very happy) from October 2019 comprising 1,000 pieces of human-marked data. We are in the process of commissioning independent verification on a larger scale.

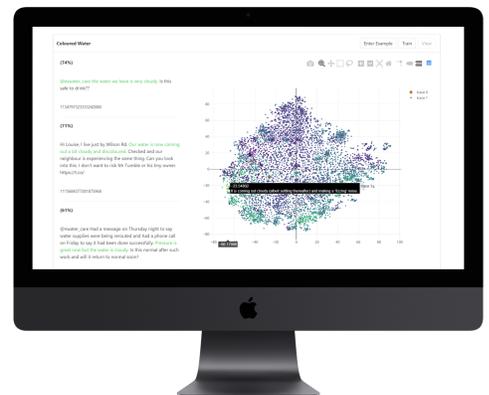
Putting the data into themes

There are services that every TOC provides, and challenges that every provider has. Imagine finding whether your services are better, and which parts of the service are lowering your overall satisfaction.

But how can you do this accurately, when everyone expresses themselves slightly differently, and uses different words to describe what's happening?

Wordnerds use a revolutionary vectoral AI model to group tweets, not by the words used, but by what the sentence actually means. Using this method, we sorted tweets into five key themes:

- **Ticket booking and online interaction** - issues with buying tickets, making reservations and using the website
- **Onboard Experience** - User discussion while aboard the train (carriages, toilets, seats etc)
- **Customer Service** - Dealings with staff at the station or on board.
- **Catering** - Onboard food and drink
- **Performance** - How operators deal with delays.



What is unique to each Provider?

We also used a linguistic methodology called concordance keywording to establish how specific terms are to each provider. This is a probabilistic tool, designed to look at the terms being used more than you would expect, given how often they're used about competitors.

In other words, what are people saying about you, that they aren't saying about anyone else?

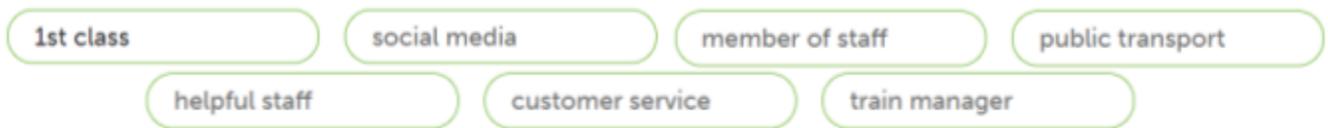
You'll find a selection of terms uncovered using this method in each individual operator section, listed as "Terms used about..."

Overall - What customers like and dislike

We started by looking at the Network as a whole over the course of a month, to understand the universal issues that people liked and disliked.

People liked

Overall, staff were the strongest asset in terms of things that passengers liked about travelling. People also enjoyed the luxury of first class, and even complimented train operators on their Social Media game.



People didn't like

While you won't be shocked to hear that train cancellations and replacement bus services are not universally popular, it was interesting to see the disproportionate anger that faulty seat reservations are met with, across the country. First Class appears on both the "liked" and "didn't like" list, suggesting both a higher enjoyment and a higher expectation.



The Big Table - Large Providers

Our first table examines Providers who received more than 10,000 tweets in the 30 days we monitored. It shows their overall score, along with their score for each individual theme.

LNER came out on top for the large rail providers.

Large Providers						
Operator	Ticketing / Online	Onboard	Staff	Catering	Delay Response	OVERALL
LNER	45	43	52	46	44	51
Virgin Trains	43	45	52	44	42	49
ScotRail	41	43	45	46	41	48
Cross Country	45	43	49	44	43	48
Southern	45	45	47	51	43	47

Transport for Wales	43	44	46	49	40	
Great Western Railway	42	44	47	44	41	
Transpennine Express	41	44	44	48	40	
Greater Anglia	43	43	46	40	40	
Southeastern	42	44	46	-	40	
Northern	43	45	43	49	41	
West Midlands	43	43	43	47	40	

London Northwestern Railway	42	43	42	48	39	
South Western	42	44	43	42	40	

The Big Table - Smaller Providers

Hull Trains received the highest Sentiment Score within the group of providers who received 1000-10,000 tweets in the relevant time period.

Smaller Providers						
Operator	Ticketing/ Online	Onboard	Staff	Catering	Delay Response	Overall
Hull Trains	45	46	55	50	50	
Caledonian Sleeper	46	43	48	43	46	
Merseyrail	43	47	52	-	46	

East Midlands Railway	45	43	48	48	43	
Thameslink	44	45	46	51	43	
Great Northern	45	47	46	-	43	
Grand Central Railway	44	43	46	-	43	
Chiltern	41	44	41	41	39	
Coast2Coast	38	42	39	-	38	

Provider Breakdown

Here’s a closer look at each provider in more detail, with an overview of challenges and/or successes, plus a list of the top terms used specifically about them. Again, these are the terms which are used more often about the operator that you would expect, given the overall use across the dataset

Caledonian Sleeper

As an overnight service, Caledonian has a unique customer relationship, with unique challenges. Users share excitement more often, but there are moving parts (issues with hot water, for example), which don’t affect other providers.

Terms used about Caledonian Sleeper
nice trip lounge car teething problems no hot water haggis, neeps and tatties



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
46	43	48	43	46

Chiltern Railways

Chiltern have been ahead of the game in terms of using smart cards, apps and podcasts, although users have been quick to point out teething problems. There have been issues with short form trains. They also had a herd of cows on the track at one stage, which allowed the internet to dust off their best cow puns.

Terms used about Chiltern
short form trains standing smart cards app moo, udder



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
41	44	41	41	39

Coast2Coast

Coast2Coast have been implementing new ticket machines, and users haven't responded well to them. This has led to added pressure on the ticket office, with users complaining about queues. The drivers still have a sense of humour, though - they have regularly been complimented on "cute" and humorous announcements.

Terms used about Coast2Coast
ticket machines out of order office closed queues out the door smart cards cute announcement



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
38	42	39	-	38

Cross Country

Issues with seat reservations, catering and air con all affect Cross Country, but according to Twitter they are the best at allocating bike spaces. They also have the politest customer base - they were thanked more regularly than anybody else.

Terms used about Cross Country
seat reservations bike space thank you no catering air con



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
45	43	49	44	43

East Midlands

It's been a really challenging month for East Midlands, with severe flooding affecting train delivery and connections. Given this, it's quite impressive that their overall sentiment score was as high as it was. And even though the report was carried out in November, East Midland users are planning their Christmas Shopping.

Terms used about East Midlands
severe flooding xmas shopping missed connection delay repay claim okay

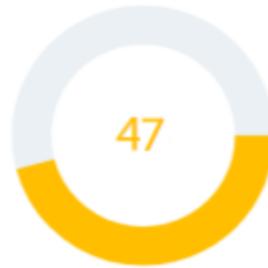


Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
45	43	48	48	43

Grand Central

A recent £2.6m investment in stations has been welcomed by Grand Central customers, although there have been issues with oversold trains, and customers are more likely to complain about lack of space for their luggage.

Terms used about Grand Central
any unreserved seats booked seats station investment oversold train suitcases, bags

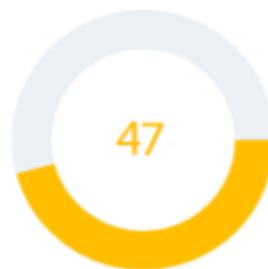


Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
44	43	46	-	43

Great Northern

Emotional goodbyes at Great Northern this month, as customers bade a fond farewell to the Class 313 engines. But there were issues with a lack of drivers across the month, and perhaps some more communication with users is needed - customers were more likely to ask Great Northern “why” than any other provider.

Terms used about Great Northern
lack of drivers contactless farewell class 313 currently stuck why?



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
45	47	46	-	43

Greater Anglia

The cold snap seemed to catch Greater Anglia off guard, with numerous customers complaining about the lack of heating. There was excitement around the arrival of the new fleet of Flirt trains, but some users were growing impatient.

Terms used about Greater Anglia
no replacement bus brand new trains no heating parking app freezing weather

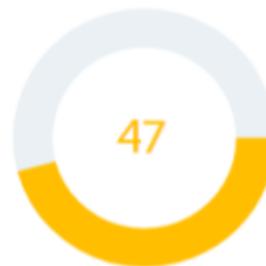


Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
43	43	46	40	40

Great Western Railway

The refreshments trolley was the principal bone of contention at GWR, while the Train Manager was regularly mentioned in a positive light. Their relationship with Nectar also attracted positive comments, but there was controversy around naming a train for Nancy Astor.

Terms used about Great Western
no trolley nancy astor app down nectar points train manager



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
42	44	47	44	41

Hull Trains

People have been loving the decor on the new Paragon Fleet from Hull Trains, going into considerable detail about colour, vinyls and livery. Elsewhere, unreserved carriages and seats are causing questions from the users, and there have been an unusual number of issues with power sockets.

Terms used about Hull Trains
paragon fleet unreserved seats colour, vinyls, livery power sockets



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
45	46	55	50	50

LNER

LNER have received plaudits for their work with mental health charities, and elements of their catering were popular (the bacon sandwich comes particularly recommended by Twitter!) They've had unusual levels of wifi difficulty over the past month, however.

Terms used about LNER
mental health bacon sandwich train manager wifi isn't working birthday weekend



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
45	43	52	46	44

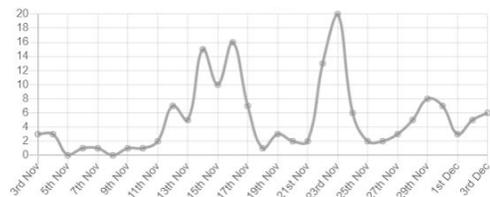
London Northwestern

The industrial action has affected London Northwestern more than most, with large staff shortages and ongoing delays. Some customers have been impressed by the fact that every seat has charging, however.

Terms used about London Northwestern
emergency/revised timetable delay repay staff shortage industrial action charging at every seat



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
42	43	42	48	39

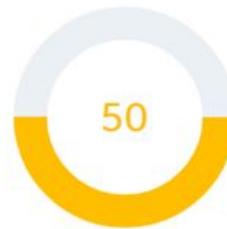


discussion of industrial action - LNW customers

Merseyrail

Despite a very high overall sentiment score, Merseyrail has seen a considerable amount of customers complaining about antisocial behaviour (smoking, feet on the seats etc). They were applauded for allowing veterans to ride free of charge on Remembrance Day, however.

Terms used about Merseyrail
smoking policy feet on the seat serving personnel black friday boxing day



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
43	47	52	-	46

Northern Rail

Northern have started a Black Friday- style season ticket giveaway, which elicited positivity from the winners. Customers commented upon the performance issues regular, although the staff were praised for being helpful during delay issues.

Terms used about Northern Rail
no drivers season ticket giveaway minutes late reject delay claims staff are helpful



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
43	45	43	49	41

Scot Rail

The onboard staff in particular were an asset to Scot Rail. The conductors and ticket inspectors were described as cheery, friendly and helpful. Even their uniforms got compliments. Rush hour appears to be a challenging area, however, discussed more by Scot Rail customers than any other customer base.

Terms used about Scot Rail
ticket machine ticket inspector, conductor rush hour smart card beautiful scenery



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
45	43	49	44	43

South Western

SWR was another operator significantly affected by strike action, with knock on effects to performance. The policy of running some trains fast were also met with anger by some passengers, although there were congratulations in order as the provider won a health and wellbeing award.

Terms used about South Western
health and wellbeing award strike action running fast minutes late passenger safety



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
42	44	43	42	40

Southeastern

Southeastern seem to have an issue with communication, with customers claiming trains are cancelled without reason and not knowing why. There were many positive comments about their high-speed Javelin service, however.

Terms used about Southeastern
signalling problems why? ticket office high speed no reason

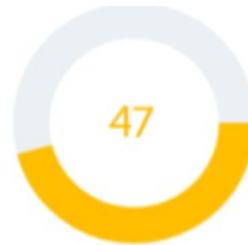


Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
42	44	46	-	40

Southern Rail

No individual customer service professional is discussed more than Steve, a driver on Southern Rail who is developing quite the fan base. Elsewhere, volunteers are coming forward for Southern’s accessibility panel, while there are issues with taxi ranks at stations.

Terms used about Southern
replacement bus volunteer disability taxi rank steve the driver tree on the line

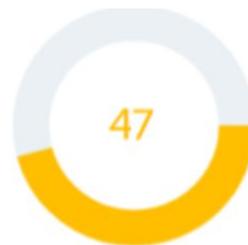


Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
45	45	47	-	43

Thameslink

Customers have welcomed Thameslink stations’ acceptance of contactless payments, although some have been unsure of the cost of contactless fares. There was also an issue with a doctor spending two hours with a customer who had been taken ill, with tweets urging Thameslink to reward the doctor for her work.

Terms used about Thameslink
contactless fares driver announcement doctor treating season ticket stop order



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
44	45	46	51	43

TransPennine Express

TPE’s new fleet of Nova trains have created a stir, with some customers saying that standard class feels like first. Elsewhere, online users seem to be having issues with the password reset function.

Terms used about TPE
new nova fleet first class upgrade seat reservations password reset code state of the art



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
41	44	44	48	40

Transport for Wales

Carriage capacity was an over-represented issue for TfW, with customers discussing crowded trains more than other providers. The social media team, however, was universally praised for being helpful and friendly.

Terms used about TfW
increase capacity replacement bus full of people social media team missed connection



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
43	44	46	49	40

Virgin

As the Virgin tenure of the West Coast Mainline comes to an end, customers have been speaking about them very fondly, particularly the staff. There have been issues with seat reservations for some customers.

Terms used about Virgin
Friendly, helpful staff big shoes to fill lost franchise seat reservations advance purchase



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
43	45	52	44	42

West Midlands Railway

West Midlands was another provider disproportionately affected by industrial action. However, there were some lovely human instances in their data, such as customers thanking drivers who held open the train doors for them.

Terms used about West Midlands
trains cancelled industrial action lost franchise seat reservations held the doors



Sentiment Score				
Ticketing / Online	Onboard	Staff	Catering	Delay Response
43	43	43	47	40

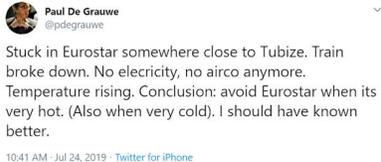
Anatomy of an incident

So we've seen how Wordnerds keeps track of the general health of a brand. But what about when something goes really wrong? We've taken one example, from Eurostar over the summer, to give a sense of how crisis management can be helped using Artificial Intelligence (AI).

We want to start by saying that Eurostar's overall brand is very positive. In fact, it would have been the top UK TOC if it had been eligible.



But on the 24th July 2019, they had a very bad day, and we feel that any Rail Provider can learn from it. What to look out for, and how to get on top of it.

24th July 2019			
	Time (BE)	Incident	
1.	Approx 10.20	Hundreds of passengers were evacuated from a Eurostar train near the Belgium city of Halle due to power failure	
2.	10.38	First tweets come through, as passengers have not been kept informed. Many passengers do not use Eurostar's Twitter handle.	
3.	10.55	First response from Eurostar. The style is very formal, even curt.	
4.	11.21	Sentiment begins to drop as no further information is forthcoming	

5.	11.37	First apology from Eurostar, using the same formal style.	
6.	11.43	Some users come back in support of Eurostar, but sentiment continues to drop.	
7.	12.36	UK Media begins to take an interest, approaching customer who had tweeted about being on the train	
8.	12.53	Interesting change of tack from Eurostar: social media professionals now start being friendlier, using first names etc.	
9.	12.59	A UK celebrity is on the train, and tweets a very emotive and negative piece. This leads to a spike in discussion.	
10.	13.06	First UK articles start to hit the internet. US Media starts approaching customers.	

11.	14.10	Replacement train arrives and passengers are boarded.	
12.	15.00-00.00	The remainder of the day is spent dealing with angry customers on the train, and those concerned about knock-on delays. Litigation is threatened. Dozens of articles have been published across the world. The Eurostar head of social media pours an enormous drink.	

So what could have been done here?

1. Get ahead of it. This was a nightmarish situation for Eurostar, but customers both on this train and future ones were constantly making the running, asking for information and clarity. Much of the negative sentiment has revolved around the lack of information.]

2. Be aware of the press. IT is entirely visible when the press begin to latch on to a story like this. This allows a provider to prepare a response, and reach out to journalists.

3. Understand influencers. The largest spike of activity across the whole day was when Katy Brand tweet. Both the emotion of her original tweet, and the response from her fanbase, should have been red flags to Eurostar. But nobody got back to her for half an hour.

4. Be sure what works. It was really interesting to Eurostar’s response management pivot twice in the tone of their responses, from official to apologetic to friendly. Because we have a considerable dataset of such incidents, it is entirely possible to see which style of reponse works best in a crisis situation, without having to test them on the fly.

And finally...

Our favourite rail tweets this month.

In rail, the steaks have never been higher.

Congratulations to the Chiltern Railways passengers who saw the funny side of their train being delayed by cows this month. And well done to Chiltern for not burgering it up...

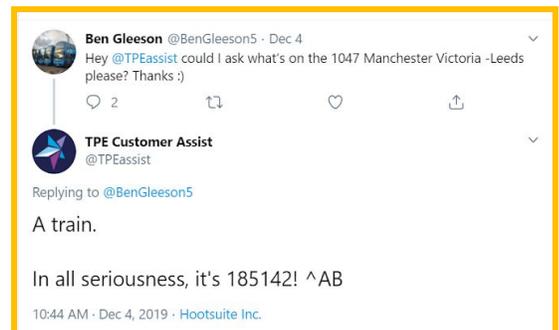


What rhymes with “points failure?”

There’s a poetry slam going on at Clapham Junction, as the fabled Steve the Driver from Southern Rail entertains passengers with his mad rhymes.

I mean, what were you expecting?

Finally, a big shoutout to the Transpennine Express Social Media team, for giving the simplest possible answer to a customer’s question.



You see, we weren't lying, we really do love rail, and we know that you do too. Otherwise you wouldn't be reading this very last page, right?

**If you're not acting on what your staff,
customers or potential customers are
writing, speak to Wordnerds.**



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