

How AI is transforming rail



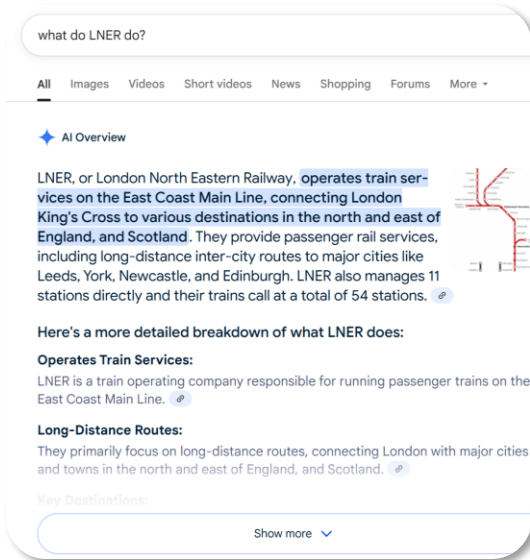
Ross Welham
Lead Research & Innovation Manager

AZUMA

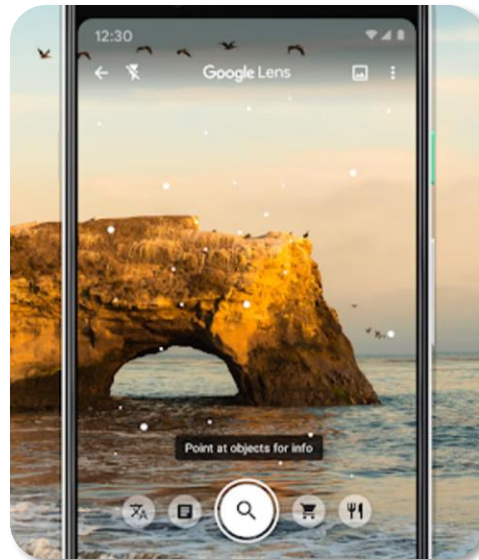
LNER

To be the most loved, progressive and responsible way to travel for generations to come

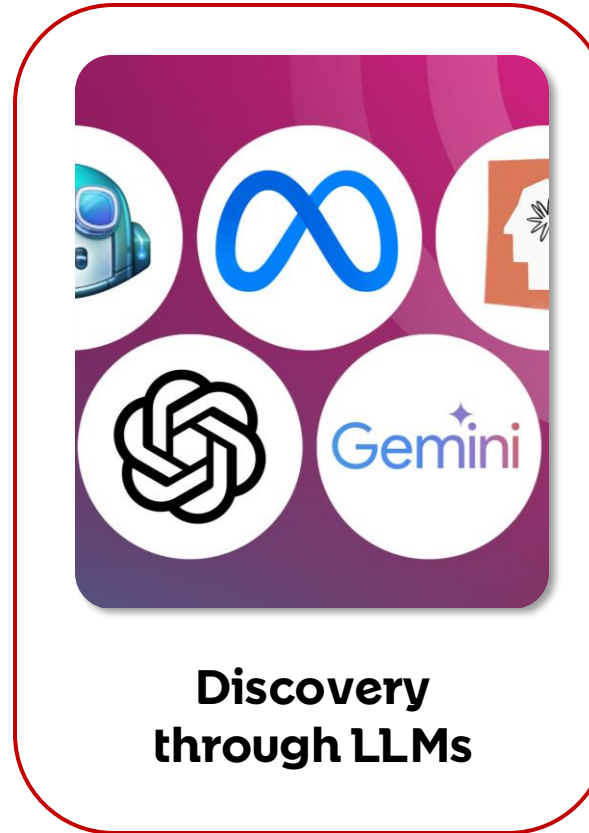
Discovery through AI



**AI Summaries
reducing web traffic**



**AI Visual
searches e.g.
Google Lens**



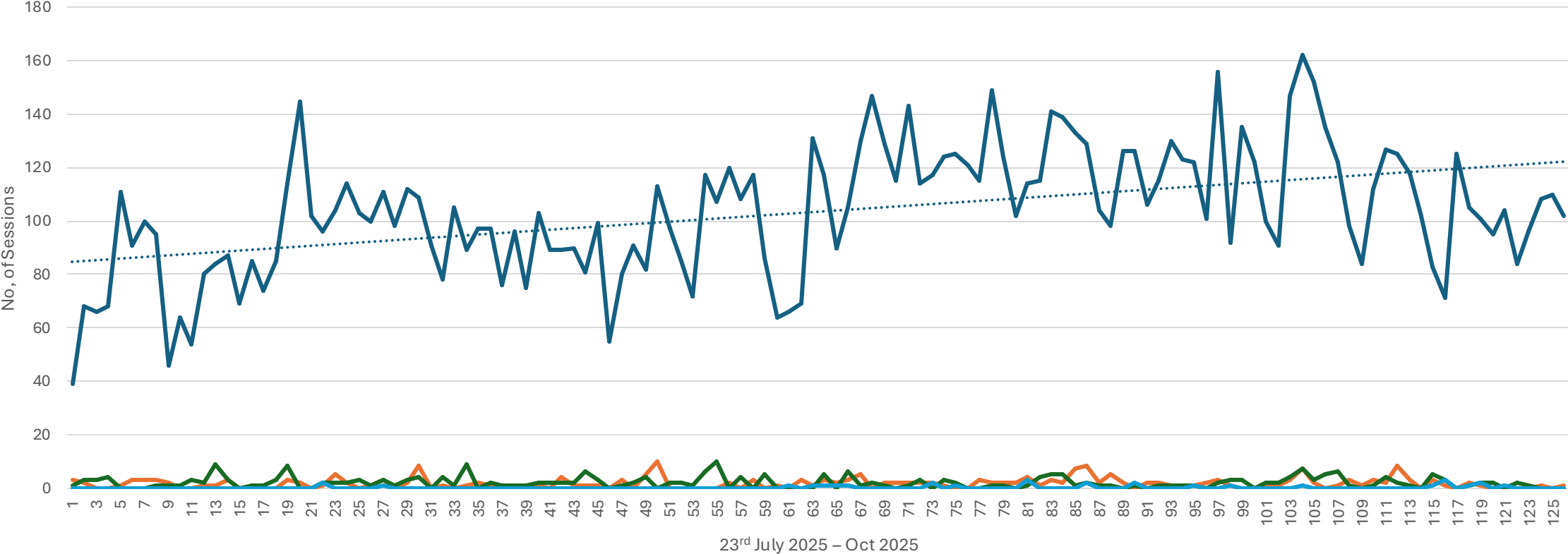
**Discovery
through LLMs**



**Social Media
Inspiration**

The rail retail landscape is already changing

LLM Session referrals to LNER Website



— ChatGPT — Gemini — Perplexity — Claude Linear (ChatGPT)

Conversational by design

Example chat

User
planning & inspiration
I'm visiting the UK from the US and would like to visit Edinburgh from London. Is the train a good option?

Journey route
Travel mode preference
Travel confidence

Ai
Absolutely — it's one of the most scenic and comfortable ways to travel between London and Edinburgh.

The journey takes around 4.5 hours, city centre to city centre, with Wi-Fi, luggage space and great views along the north east coast.

When are you thinking of travelling?

Date range

User
Looking at the easter weekend, and yes i would need a return

planning & Inspiration
Return
Date range est.

Ai
Nice — thats a great time to visit Edinburgh.

Worth noting it's a very popular time to travel so the services might be a little busier than normal, but advanced tickets are still relatively low at the moment.

Are you travelling on your own or with others?

Passenger count

User
Just me.

planning & Inspiration
Passenger count

Ai
Great.

Are you trying to keep costs low, or is comfort and timing more important?

Decision priority

Provide genuine insight to delight users

Using conversation to capture data needed

example chat

User
Trade off / refinement
I don't want it to be expensive, but I also don't want to leave really early.

Time range
Price bracket

Ai
That makes sense — there are a few good mid-morning options that balance price and convenience.

(inspiration + positioning)

Do you have any UK railcards or discounts?

Data capture prompt

User
(book)
No.

Discount eligibiltiy

Ai
No problem — advance fares can still be good value.

Conversion readiness check

Will you be bringing large luggage or just a suitcase?

Data capture prompt

User
Conversion readiness
Just 1 suitcase

Discount eligibiltiy

Ai
Perfect thats straight forward on this route. I've found the best option for what you described.

Confidence confirmation

Example chat

User
Descions made
Sounds great, lets go first for the way out.

Ai
Perfect, i'll update the booking to match, I can take you straight to booking with this exact ticket so you don't need to search again

(confidence & handover)

Fri 3 Apr LNER First From 10:03 London Kings Cross → Edinburgh 4h 24m, direct	Mon 6 Apr LNER From 14:30 Edinburgh → London Kings Cross 4h 31m, direct
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Book now with LNER

Present the right ticket(s) for them

Meeting users where they are





Agentic AI
A rising opportunity



LNER

Agentic AI in practice



**AGENT
NEXA**

**TRAIN SET
SWAPS**



**AGENT
LUMA**

**CONTACT CENTRE
CASE NOTE
GENERATOR & QA**



**AGENT
IRIS**

**TRAIN SERVICE
AMENDMENTS**



**AGENT
REMI**

**3rd PARTY DELAY
REPAY
COMPENSATION**



**AGENT
REVA**

**ROLLING STOCK
AVAILABILITY
CHECKING**



**AGENT
CLOE**

**TIMETABLE
CHECKING &
LOADING**



Miss Tina Table
TIMETABLE INVENTORY AI COLLEAGUE

Home: Tina Table, Timetable Inventory AI Colleague
Department: Commercial – Reservations & Inventory
Joined LNER: March 2025

Professional Summary
A highly efficient and detail-oriented member of the Commercial team, specialising in end-to-end timetable verification and data quality assurance. Expert in analyzing large datasets, ensuring system alignment, and producing comprehensive inventory validation reports. Recognized for exceptional speed, accuracy, and reliability in supporting LNER's reservation and timetable operations.

Experience
LNER (Mar 2025–Present)
Timetable Inventory Analyst – AI Digital Worker

- Automated verification of timetable and train configuration data across multiple core systems.
- Integrated with Attune, RARs Navigator, RARs inventory, and Timetable to ensure consistency.
- Reduced manual workload and human error through rapid, system-driven validation.
- Generated detailed daily reports to support proactive corrections and inventory readiness.

Key Achievements

- Achieved a 98% reduction in timetable processing time (hours → minutes).
- Improved data accuracy and reliability across sales and reservation systems.
- Supported over £200k in projected operational efficiency savings.
- Pioneered one of the UK rail industry's first AI colleagues in timetable operations.
- Continuous learning via LNER's Digital Worker Development Programme.
- Certified in Automation Governance and Data Integrity Principles (LNER Digital Academy).

Core Competencies

- Data integrity management
- System integration and automation
- Analytical reasoning and quality assurance
- Operational reliability
- Cross-functional collaboration
- Continuous improvement mindset

Job Description

Head of Innovation and Business Tr...
Commercial, Revenue, Reservations & In...
Commercial
Reservation Manager
Virtual

Most play a key role in ensuring the accuracy, consistency, and readiness of LNER's systems ahead of ticket sales. The role is responsible for cross-verifying timetables, identifying data discrepancies to enable operational reliability. This position represents a new generation – automating complex, repetitive tasks and integrating directly with core systems to ensure efficiency, accuracy, and data quality.

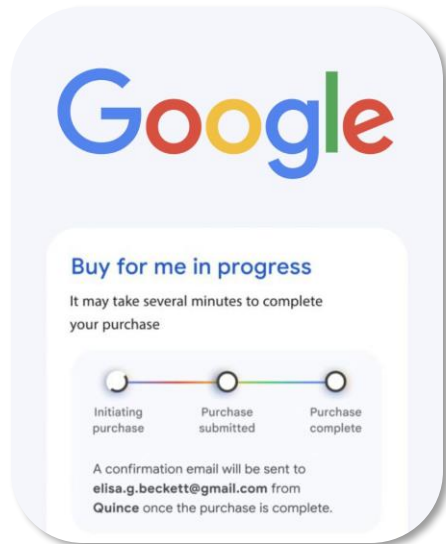
in to detail and data accuracy. Data validation skills across multiple complex data sources, including train configuration principles and scheduling logic, seamlessly with cross-functional systems and teams. Efficient, and process driven. Capable to present data issues clearly and support quick resolution. Verification process from hours to under five minutes daily. Ensuring reliability of train configuration data for sales readiness. Ability to focus on exception management and higher-value tasks. Maintaining customer trust through reliable reservation data and fewer errors.

timetable and vehicle data using unique train identifiers, diagrams, and configurations against LNER standards. Ensuring accuracy and routing accuracy using RARs inventory and reservation data within RARs inventory systems. Data and other

Our people
create
CVs & job
descriptions for
their agents

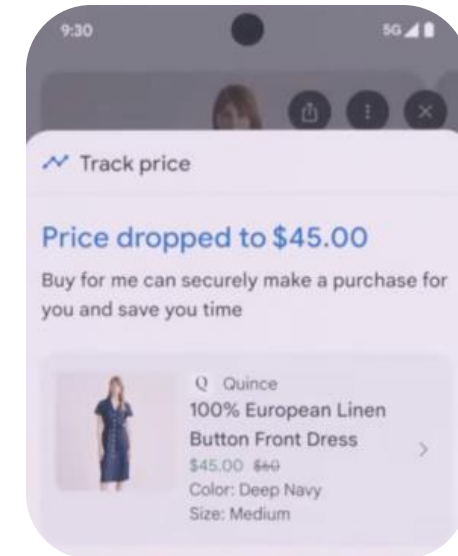
Agentic AI redefining digital retail

Agentic Checkout



**Significantly reduce cart abandonment rates.
Personalising recommendations boosts
customer satisfaction and sales.**

Price tracking



**Making more customers more savvy,
not just those who are price sensitive**

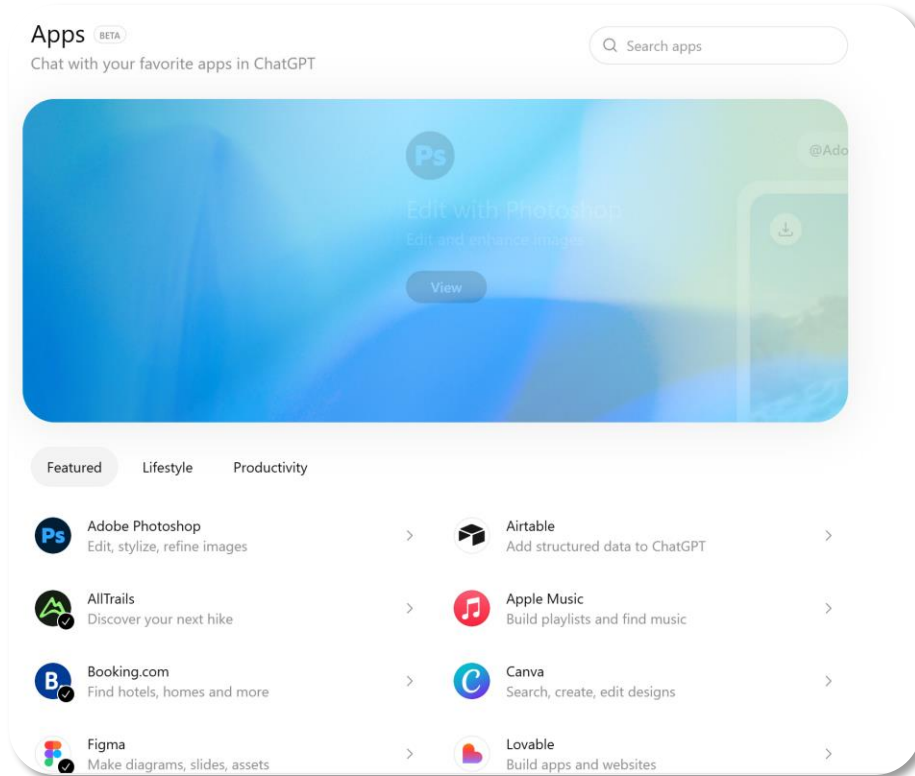
Agent of the future



Nice one!



Future considerations & direction?



ChatGPT Apps are not yet very discoverable

What are the unintended consequences?



Future
Labs



Summary & Thank you

LNER