Lineage

CHAOS MEETS ITS MATCH

How Lineage is Using Data Science to Beat Uncertainty

If you work in logistics, you know the feeling. No matter how great your day is going you can almost feel the chaos coming over the horizon. The unpredictability of consumer demand makes the cold storage warehouse a hotbed of uncertainty. A place where disruption and delay lurks around every corner. But with Lineage, chaos doesn't have to win.

MAKING THE UNPREDICTABLE, PREDICTABLE

Enter Sybil*, a patented, proprietary algorithm and neural network developed by Lineages' unique team of data scientists to deliver efficiencies and a more predictable supply chain for our customers.

Thanks to Sybil, the warehouse becomes a buzzing hive of information, insight and improvements:

- Historical data on duration of stay
- Deep insights into product demand
- Accurate predictions about product pick-up times, co-packing patterns, etc.

*In ancient Greece, a prophetess was called a Sybil. Our data scientists like to name their algorithms after mythological figures. There's also an Apollo, a Demeter, an Artemis and one named Fred.

THE SELF-AWARE WAREHOUSE

Arrival

The pallet arrives and is coded by customer, product type and item description. This information is added to the historical database of five-plus years of data. Because of machine learning, Sybil understands this pallet in the context of past deliveries.
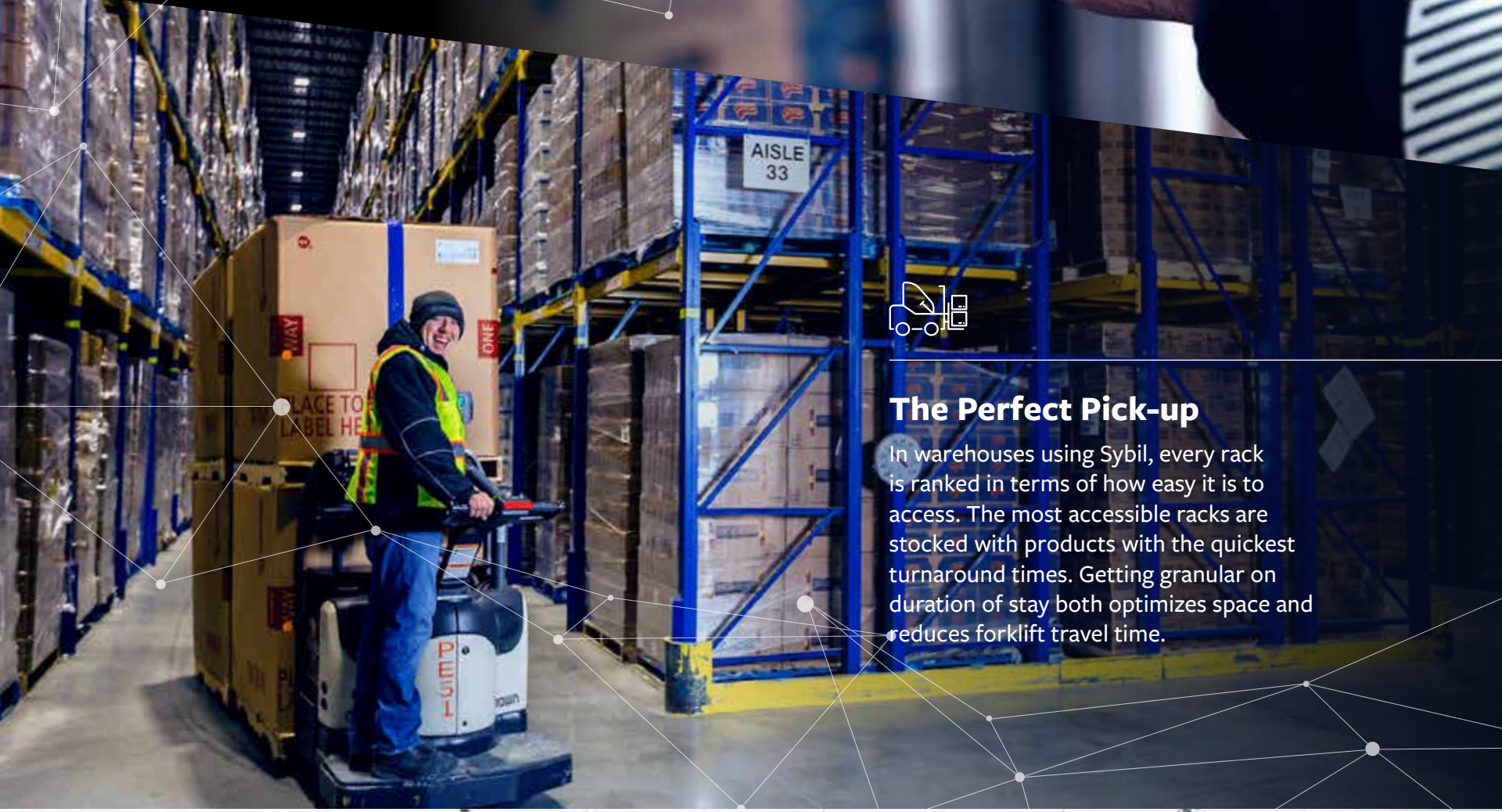
Prediction & Tasking

Drawing from the historical database, the algorithm assigns a statistical probability for the amount of time the product will stay on site. Once Sybil understands duration of stay, the algorithm tasks a forklift operator to move the pallet to its ideal location.

The Perfect Pick-up

In warehouses using Sybil, every rack is ranked in terms of how easy it is to access. The most accessible racks are stocked with products with the quickest turnaround times. Getting granular on duration of stay both optimizes space and reduces forklift travel time.

LINEAGE TURNS TRUCKS FASTER

Sybil optimizes loading and unloading by automatically adapting to the nuances of your supply chain.

- Sybil anticipates demand and automatically directs products to be in the right place at the right time.
- More efficient forklift operations has a profound ripple effect on warehouse efficiency.
- Sybil actively heads off transportation hiccups and delays.

A COLD CHAIN THAT'S SCARY SMART

You deserve more from your cold chain logistics company.

- The idiosyncrasies of supply and demand don't have to be a source of constant surprise.
- Trucks idling at the loading dock shouldn't have to be written off as a cost of doing business.
- Efficient turnaround times can be the norm.

Learn more about how Lineage is revolutionizing cold chain logistics.

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Lineage is a host company for the Analytics Lab at MIT's Sloan School of Management. Sybil was developed as part of the lab's Action Learning Project.