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OVERVIEW

(A Future with Connectionist AI)



PART 1: Current Trend and Our Vision

PART 2: Relevance and Early-Adopter Example

PART 3: Current Practical Implementations

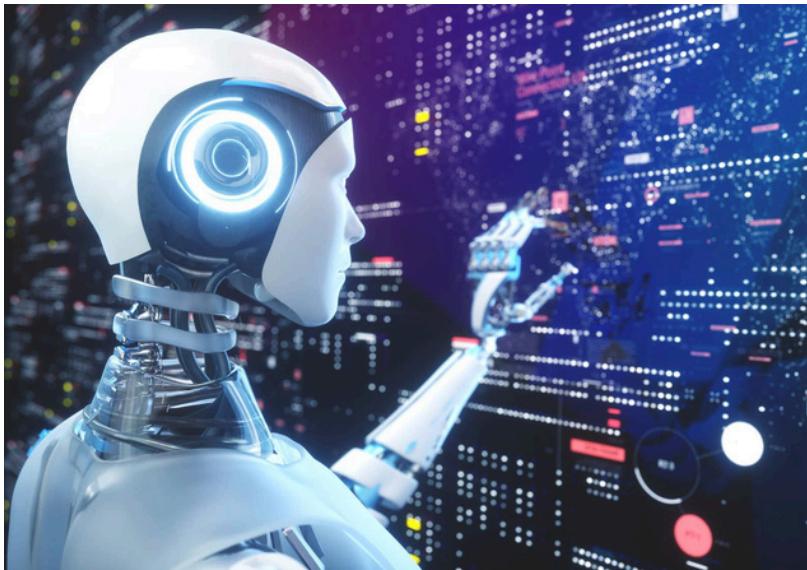
PART 4: Business Employment of Neural Network

PART 5: Further Challenges and Opportunities



Emerging Market Trends in Logistics Operations

Predictive and Real-Time Analytics



- Response Automation
- Dynamic Scenarios

Last-Mile Delivery Complexities



- Timely Delivery
- Optimize Routes

Carbon-Neutral Drive



- Reduce Emission
- Carbon-Neutrality

Benefits of Invoking the Connectionist Tribe

(DHL operates much alike a human brain, with many areas working in unison, elements = neurons)

Operational Efficiency

Autonomously monitor all aspects of value chain, **continuously** update databank to train models to automatically respond to the dynamic nature of the DHL operations.

Customer Centric

Connectionist AI Implementation leads to **Timely Delivery + Green Energy = VERY Satisfied customer** which in turn, keeps stakeholders happy!

Environmental Concerns

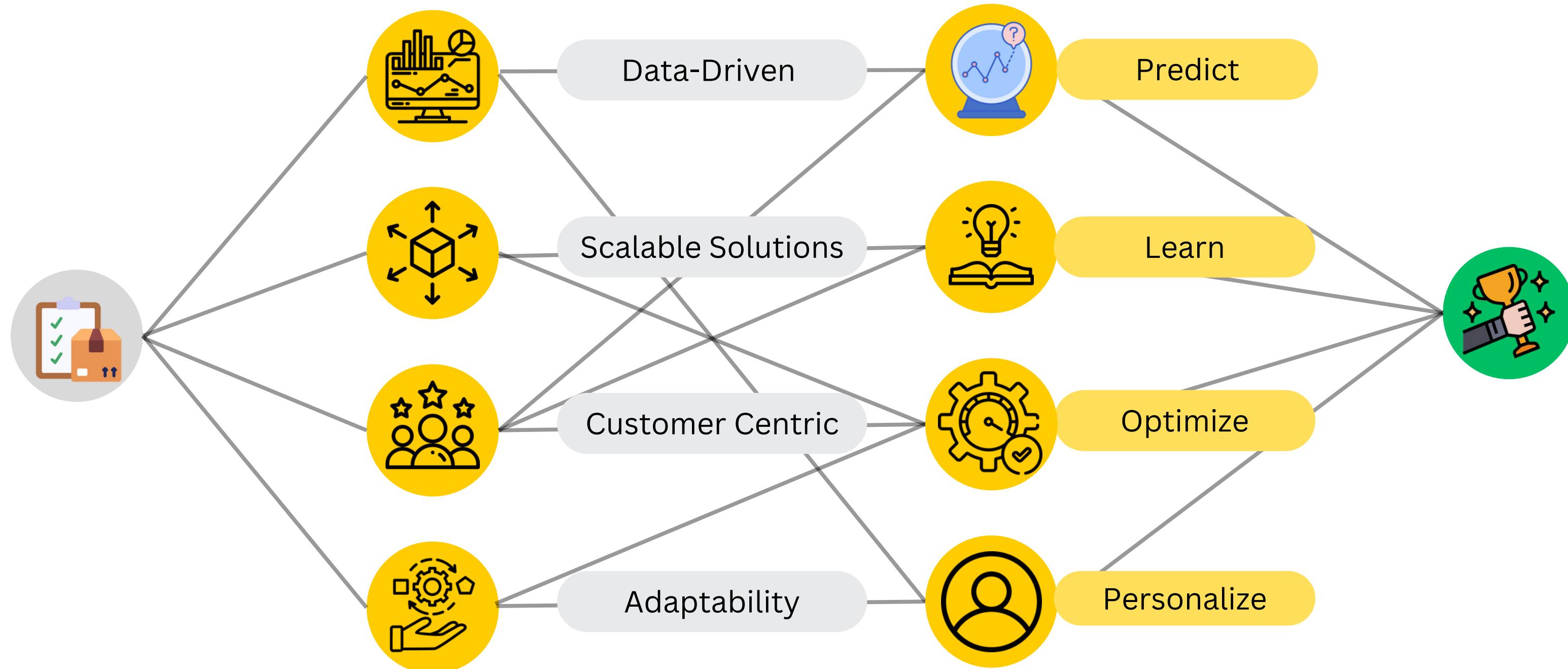
Through continuous big-data analysis, DHL can reach carbon neutrality using smart scheduling of logistics systems, and achieve **high utilization** rate whilst **minimize waste**.



Founder's Advantage

- Instantaneous Competitiveness
- Establish and Solidify Market Foothold

Using Connectionism to Connect People, Improve Lives, and be The Logistics Company for the World

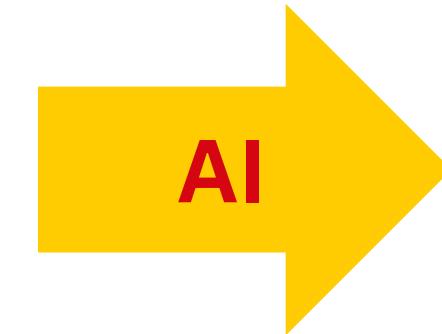


Winning Through the **Law of Profit**: Maximizing Revenue While Minimizing Costs

Reactive



Costs Money



Proactive



Earns Money

Faster, Cheaper, Better

DHL adopts robotics and AI to facilitate productivity in the warehouse

focus on the “4Ds” - Dirty, Dull, Distant, and Dangerous tasks.

Dorabot



eliminates
need for
second sorting

- Small parcel **sorting** robot
- Sorts 1,000+ parcels per hour with 99% accuracy

Stretch



adjusts
arm movement
based on package

- **Container-unloading** robot
- transfer 700+ pieces an hour onto a conveyor belt

Connectionism is the foundation

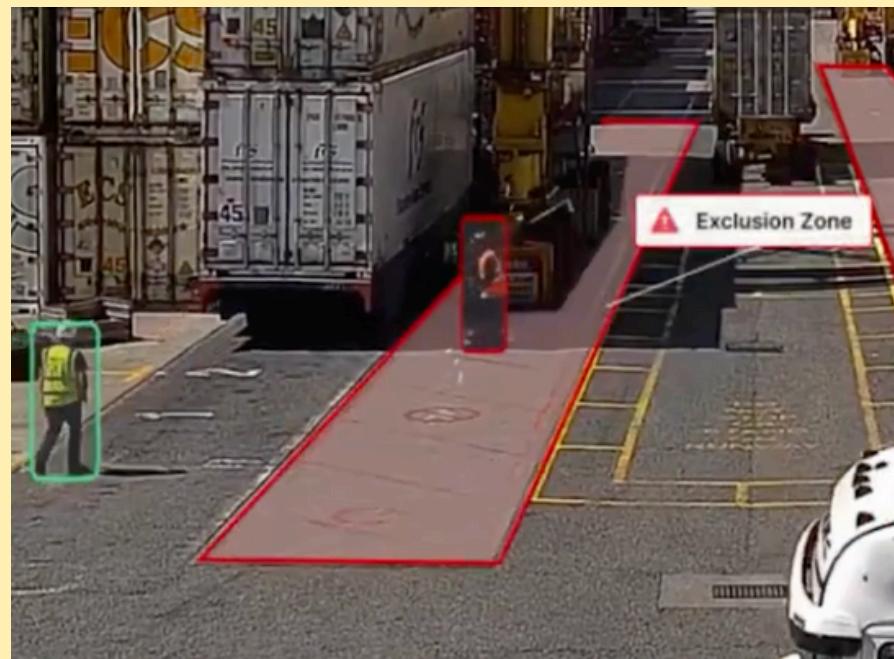
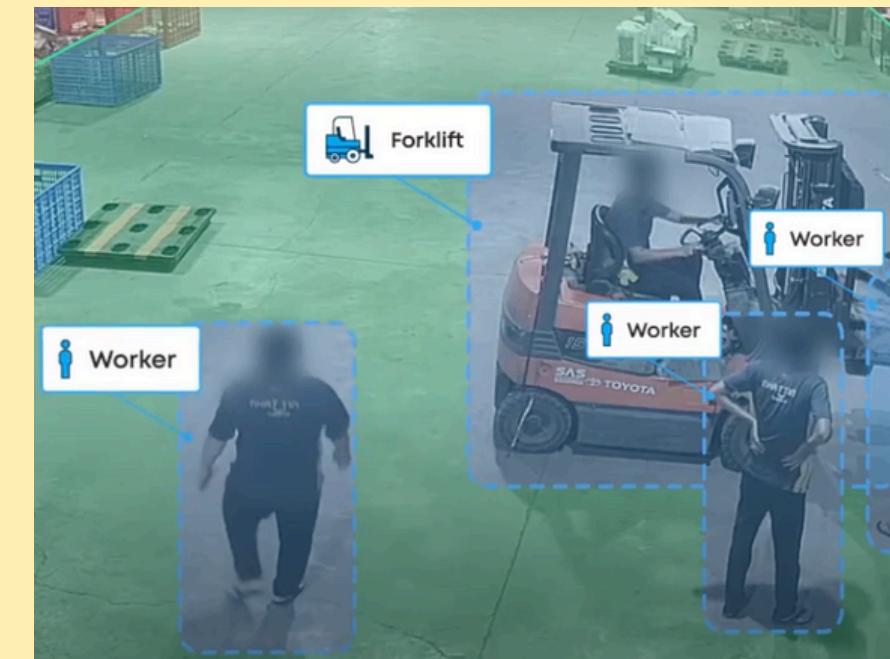
- **Perception System:** advanced vision / sensor systems that enable **perception and interpretation of the environment**.
- **Autonomous Navigation:** algorithms that allow **autonomous movement** in complex warehouse environments.
- **Grasping and Manipulation:** optimize grasping strategies based on **sensory input**. (eg. size, weight, etc.)

Ensuring Workplace Health and Safety with Protex AI

Smart Surveillance Systems



Computer Vision



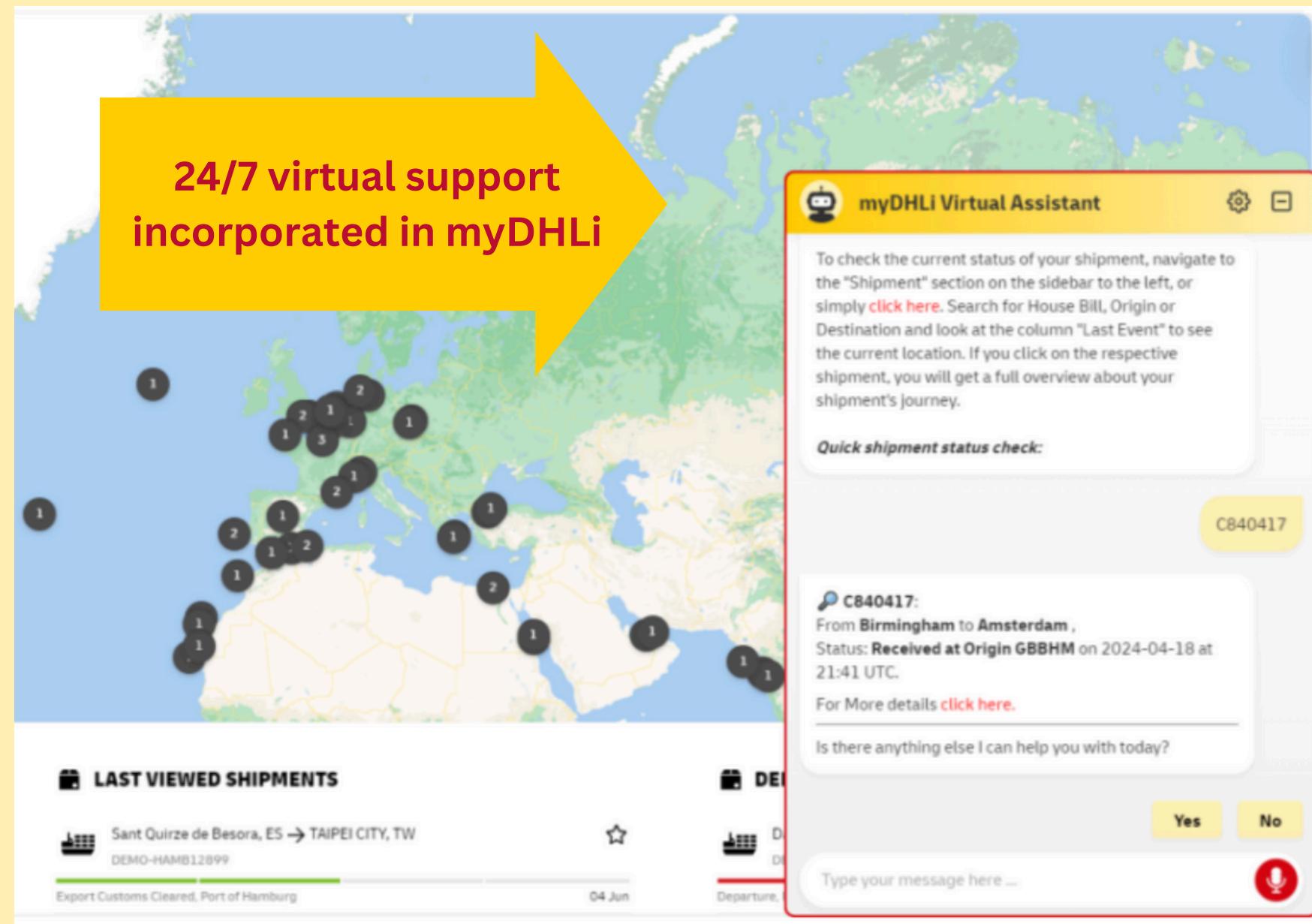
- detect unauthorized entry or suspicious behavior
- trigger alerts, and ultimately reduce theft

- real-time analysis of human and vehicle motion
- accident alert through object recognition and tracking

Connectionism is the foundation

- **Computer Vision Algorithms:** neural networks algorithms to detect potential risks and unsafe behaviors
- **Audio AI:** predictive maintenance by interpreting sound to detect anomalies

myDHLi introduces a **Virtual Assistant** to Boost Logistics Efficiency



- a **generative AI assistant** allowing real-time, multiple inquiries from customers
- supports inquiries about **shipment progress, contact details, status tracking**, etc.
- improved efficiency in customer service

Connectionism is the foundation

Generative AI:
neural networks that **understand user queries** and **generate human-like text**

How can DHL use AI in the Future (with AI tribe as Bayesian)

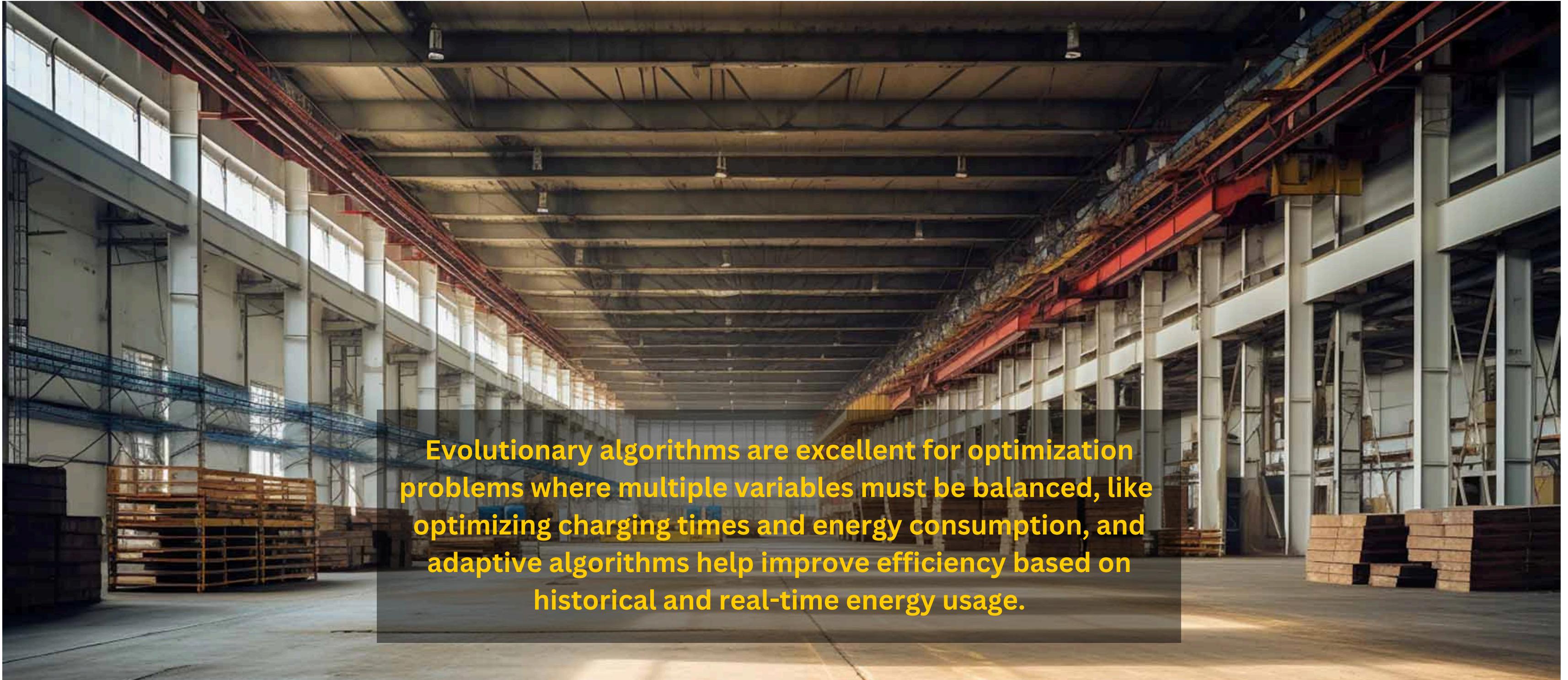


Bayesian methods excel in probabilistic forecasting, dynamically updating demand predictions as new data arrives.

How can DHL use AI in the Future (with AI tribe as Connectionists)



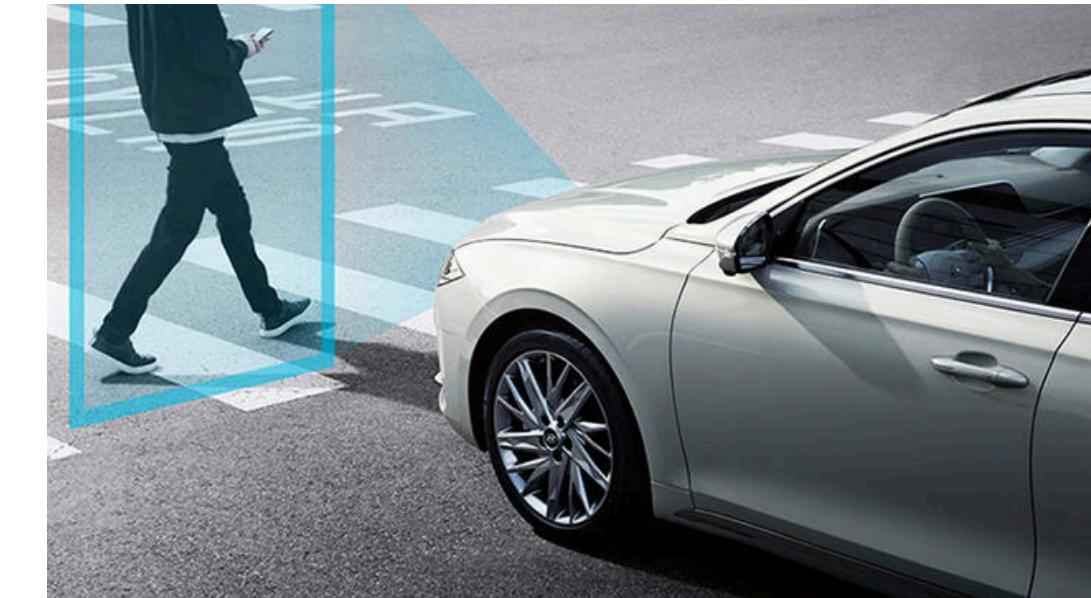
How can DHL use AI in the Future (with AI tribe as Evolutionary)



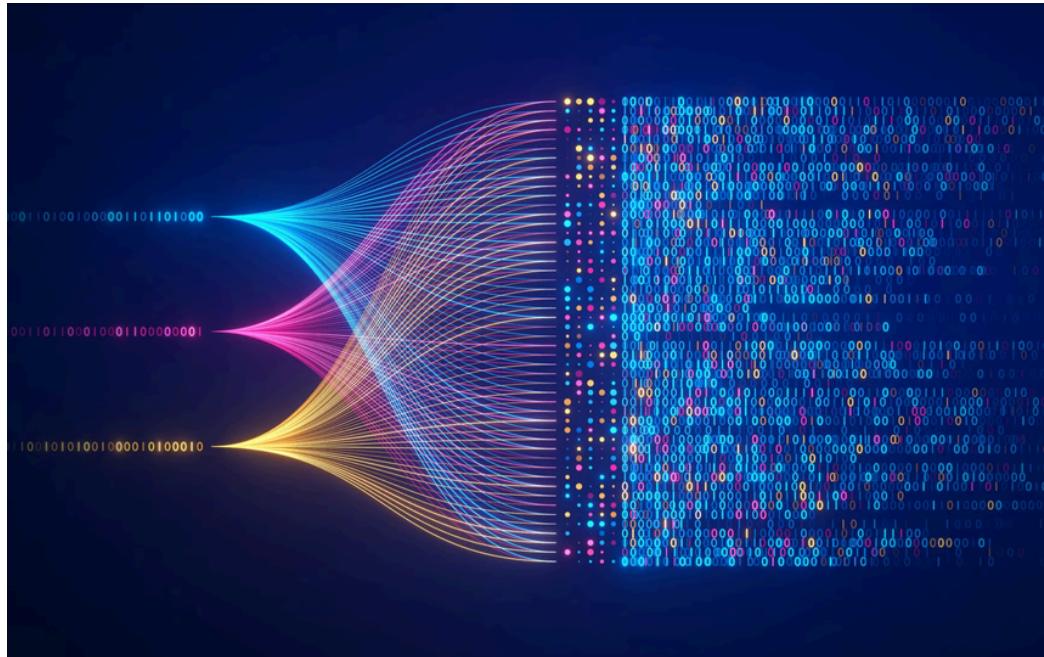
Challenges and opportunities



Employee Resistance



Safety Concerns about autonomous vehicles



data quality & complexity of the model



Lack of talent



Q&A

Reference

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- <https://www.dhl.com/global-en/delivered/innovation/warehouse-robotics-and-automation.html>
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