AI IN 12 MINUTES FOR TRANSPORTATION

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MOTIVATION - WHY AI?

Optimizing route planning
Enhancing safety features
Reducing operational costs
Improving customer experience
Facilitating autonomous vehicle development

2/24
INDUSTRY

Public Transit Systems
Freight and Logistics
Automotive Manufacturers
Aviation Industry
Maritime Transportation

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STRATEGIC TRENDS

Autonomous vehicles
AI in traffic management
Drone delivery services
Electric vehicle integration
Predictive maintenance
AI in logistics optimization
Smart public transit systems
AI-powered navigation apps
Sustainable transportation technologies
Enhanced aviation safety with AI

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WHY CHANGE?

Urban congestion
Environmental concerns
Safety improvements
Efficiency demands
Technological evolution

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LEADING
THE CHANGE

Tesla (Autonomous electric vehicles)
Waymo (Self-driving technology)
Maersk (AI in shipping logistics)
DHL (AI in freight logistics)
Boeing (AI in aviation systems)

6/24

DIGITAL TRANSFORMATION

Self-driving cars and trucks
AI in traffic flow optimization
Predictive maintenance in aviation
AI-driven route optimization
Smart ticketing systems
AI in maritime navigation
Real-time tracking in logistics
AI for enhanced in-flight experiences
Drones for delivery and surveillance
AI in train scheduling

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AI DISRUPTION

Autonomous vehicles reducing accidents
AI for dynamic routing in logistics
Real-time traffic prediction and management
AI in predictive vehicle maintenance
Enhanced flight safety systems
AI in efficient public transit planning
Personalized travel experiences
AI in cargo loading optimization
AI for fuel efficiency in aviation
AI-assisted parking solutions

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GREAT EXAMPLES OF AI

Tesla’s Autopilot for self-driving
Uber’s AI algorithms for ride-hailing
Google Maps’ AI for traffic prediction
Kiva robots in Amazon warehouses
Rolls Royce’s AI in ship management
Airbus's AI for flight operations
Hyperloop’s AI in high-speed transit
Skywise by Airbus for maintenance optimization
DJI drones for logistics and surveillance
AI in Singapore’s smart public transit

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9/24 ECOSYSTEM REQUIREMENTS

Robust digital infrastructure
Policy and regulatory frameworks
Public-private partnerships
Skilled workforce in AI and transportation
Collaboration between tech and transport sectors

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AI ⏩ SUSTAINABILITY

Lower carbon emissions with AI efficiency

AI in optimizing fuel consumption

Reduced traffic congestion

AI for efficient public transit systems

Enhancing electric vehicle adoption

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NEW RISKS - ETHICAL, LEGAL, SOCIAL

Cybersecurity threats in autonomous systems
Ethical concerns in AI decision-making
Job displacement in traditional roles
AI reliability and safety in transport
Data privacy in passenger information

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AI MISUSE EXAMPLES

AI-driven autonomous vehicle hacking

Misleading AI in ride-hailing pricing

AI biases in traffic management systems

Unauthorized surveillance using drones

Manipulation in AI-based logistics

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THREE AI DILEMMAS

Should AI fully control autonomous vehicles?

How to balance AI efficiency and job impacts?

Ensuring fair AI access in public transportation?

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14/24 ORGANIZATIONAL REQUIREMENTS

Strategic vision for AI integration
Investment in AI technology and research
Skilled personnel for AI development
Strong cybersecurity measures
Collaborative ecosystem with tech partners

15/24
STEP BY STEP APPLICATION

Identify AI use cases in transport
Invest in AI technology and infrastructure
Train staff on AI tools and ethics
Implement AI solutions in phases
Regularly assess and update AI systems

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BEST PRACTICES

Prioritize safety in AI applications
Focus on customer-centric AI solutions
Collaborate with AI and transport experts
Gradual implementation with constant feedback
Uphold ethical standards in AI use

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AI TOOLS & MODELS

Machine learning for traffic prediction
Neural networks in autonomous driving
AI algorithms for dynamic routing
Reinforcement learning in drone navigation
Predictive analytics in fleet management

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USEFUL
DIGITAL TWINS

Digital twins of vehicles for testing
Virtual models of traffic systems
AI-based airport operation simulations
Digital replicas of logistics networks
Virtual shipping routes and port models

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COOL
NORWEGIAN CASES

Imove: Subscription-based EV services.
Meshcrafts: Smart EV charging platform.
Easee: Manufactures smart EV charging robots.
Hy5: Innovates with hydrogen power solutions.
Voi Technology: Urban electric scooter sharing.
Nabobil: Peer-to-peer car sharing service.
Hyre: Electric car rental platform.

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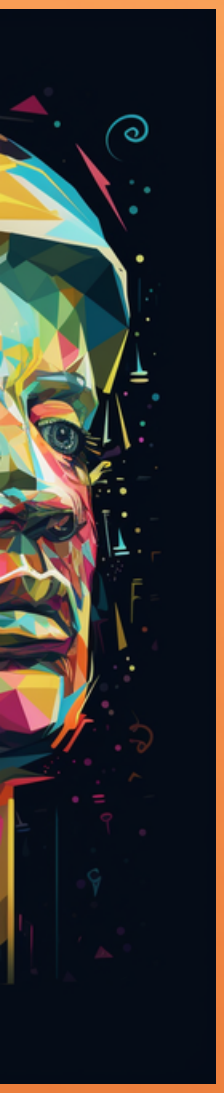

20/24
GLOBAL LEADERS

United States (Autonomous vehicle technology)
China (High-speed rail, electric vehicles)
Germany (Automotive innovation)
Singapore (Smart public transit)
Japan (Advanced robotics in transportation)

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FUTURE JOBS

AI transportation system analysts
Autonomous vehicle safety specialists
AI-driven fleet management coordinators
Urban mobility planners
AI ethics officers in transportation

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THE FUTURE OF AI

Full autonomy in vehicles

AI-integrated public transit systems

AI in reducing transportation emissions

Global AI-driven logistics networks

Enhanced safety features in transport

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23/24 RECOMMENDED READING

"Autonomy" by Lawrence D. Burns

"Traffic: Why We Drive the Way We Do" by Tom Vanderbilt

"The Big Data-Driven Business" by Russell Glass, Sean Callahan

"Machine Learning and AI for Healthcare" by Arjun Panesar

"The Master Algorithm" by Pedro Domingos

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GOOD TED TALKS

"How autonomous cars will reshape cities" by Wanis Kabbaj
"The future of flying robots" by Vijay Kumar
"The ethical dilemma of self-driving cars" by Patrick Lin
"How AI can save our humanity" by Kai-Fu Lee
"How we're teaching computers to understand pictures" by Fei-Fei Li

WHAT WOULD YOU ADD?

LET ME KNOW!

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