Al, Big Data, and Machine Learning in Hospitality

Revolutionizing the Hotel Industry: Embracing the Future Today



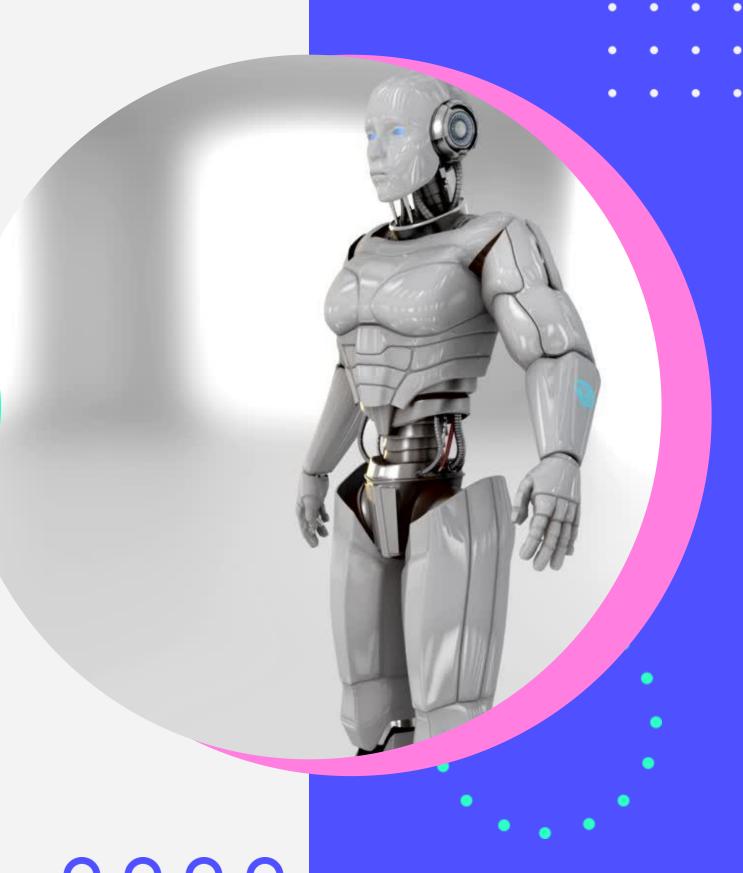


The Future is Now

"Hospitality is not just about providing a place to stay; it's about creating unforgettable experiences"

The hospitality industry is being transformed by technology

Al, Big Data, and Machine Learning are redefining guest experiences and operations

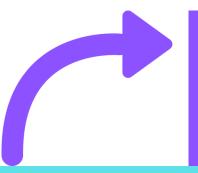




Hello I'm Tai

- 18 years exp in deep tech
- Owned hotel and homestay chains
- Founded a accommodation technology company
- Founded an FnB Tech company
- Creating something new in Robots AI Big Data
- Love driving around Vietnam

Key milestones in hospitality tech evolution



Fully Automated
Hotels with AI &
Robotics

IoT & Smart Rooms

Al & Chatbots for Service

Digital Booking
Systems

Manual Operations





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Why Technology Matters in Hospitality

- Evolving Guest Expectations: personalization, immediacy, and seamless experiences.
- Competitive Advantage: outperform competitors
- Operational Efficiency: Streamlines
 processes and reduces costs, enhances
 service delivery and staff productivity

Understanding the Technologies

- Artificial Intelligence (AI): Machines simulating human intelligence to perform tasks
- Big Data: Large volumes of data analyzed to reveal patterns and trends
- Machine Learning & Deep Learning (ML): A subset of Al where systems learn from data

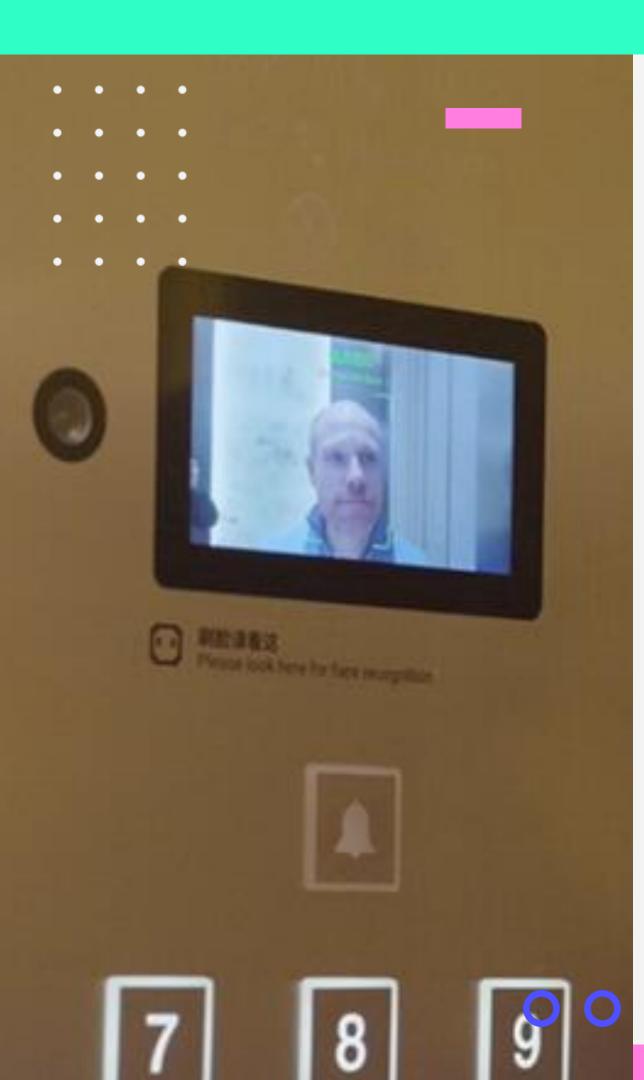
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-Al in Action Global Examples

- Hilton Hotels: Connie, the Robot Concierge.
- Marriott International: AI Chatbots and Voice Assistants.
- InterContinental Hotels Group (IHG): Concierge Insider Guide.

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Al in Action - Innovative Examples from China

- Alibaba's FlyZoo Hotel: Facial recognition for check-ins, Tmall Genie voice assistants in rooms
- JD.com's Smart Hotel: Seamless guest experience and personalized services using Al-powered systems



Big Data -Personalization and Precision

- Data contains every opportunities and problems
- Uses loyalty program data to customize guest experiences. (AccorHotels)
- Dynamic pricing strategies based on market trends and customer behavior (Wyndham Hotels)
- Data-driven marketing with targeted campaigns based on guest preferences (Four Seasons)

Machine Learning - Driving Excellence

- Reveals hidden patterns beyond human awareness
- Predictive analytics optimize staffing and inventory management (Hyatt)
- OptiRev revenue management system driven by AI optimizes room rates and distribution (Radisson)
 - Initiative monitors social media to interact with guests in real-time (M Live Marriott)



Al for Operational Efficiency and Cost Reduction

- Al -> AGI: Smarter than Smartest
- Al-controlled energy usage reduces consumption by up to 30%.
- Predictive scheduling reduces labor costs without sacrificing service.
- **Hilton**: Al tracks inventory levels and automates reorders to minimize waste.



Example

Challenges:

- Rising operational costs.
- Declining guest satisfaction.
- Increasing competition.

Technology Implementation:

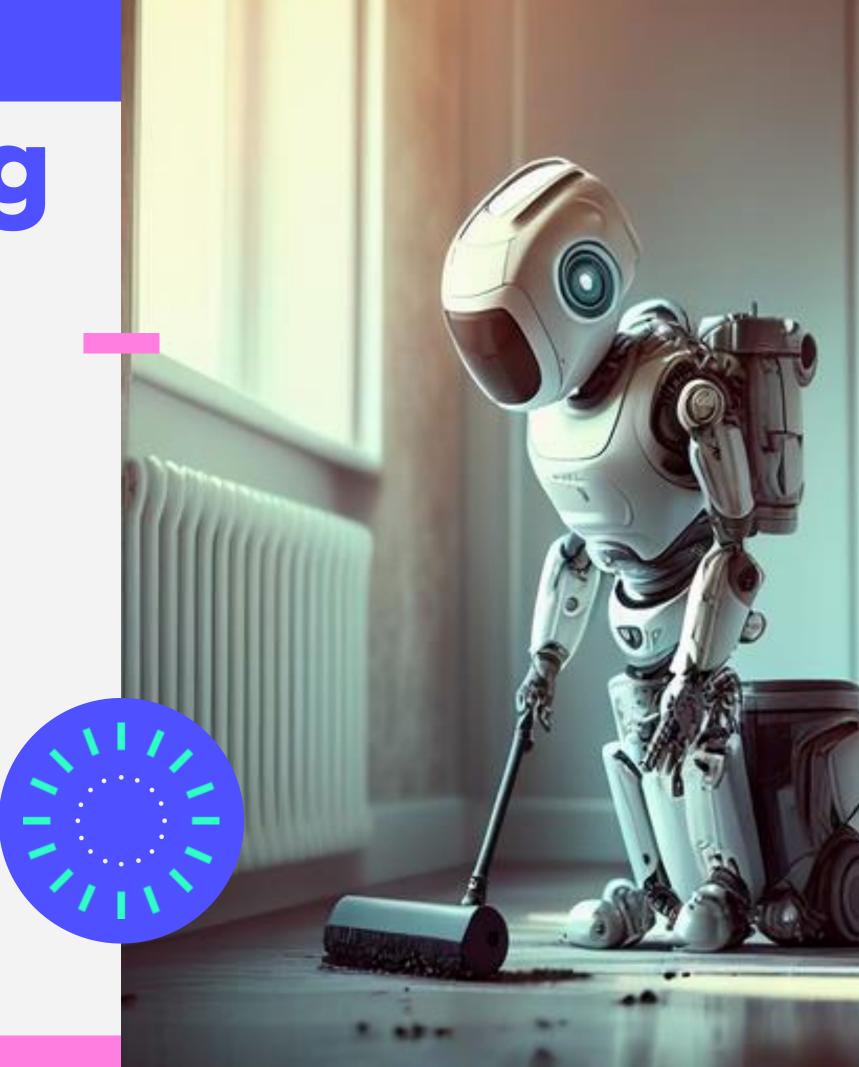
- Adopted Al-powered chatbots for customer service.
- Implemented energy management systems.
- Launched personalized marketing campaigns using Big Data.

Outcomes:

- Operational Savings: Reduced costs by 20% through efficiencies.
- Increased Revenue: Boosted direct bookings by 25%.
- Enhanced Satisfaction: Improved guest reviews and occupancy rates.

Robotics Enhancing Maintenance and Service

- FlyZoo Hotel: Robots perform cleaning tasks efficiently.
- Outdoor maintenance robots handle landscaping and outdoor cleaning.
- Al-powered quality assurance systems monitor cleanliness in real-time.





Enhancing Guest Experiences Through Technology

- Al enables staff to anticipate guest needs, creating personalized experiences
- Seamless services via mobile apps for check-in, room access, and service requests
- **Future prospects**: Emotional AI to interpret guest emotions for real-time service adjustments



The Road Ahead -Future Trends

- Voice and gesture control for natural room interactions
- AR/VR for enhanced booking experiences and immersive guides
- Sustainability: Al optimizes resource usage for eco-friendly practices

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The Road Ahead -Future Trends

- Personalization at Scale: Al will enable even deeper personalization
- Unlocking New Revenue Streams: upselling, enhanced loyalty programs, and increased direct bookings
- Fully automated: IOT & All-by-Al hotel

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Addressing Challenges

- Choosing right set of technologies: Require vision & strategy
- Initial Investment: Start with scalable technologies that offer quick ROI
- Data Privacy and Security: Compliance with GDPR and robust cybersecurity
 - Workforce Transition: Upskill staff to work alongside AI and enhance guest interaction



Action Steps for Hotel Owners

- Evaluate current operations for technology impact opportunities
- Set clear objectives for guest experience, efficiency, and revenue growth
- Pilot and scale successful initiatives, invest in people to train and develop staff



Conclusion

Embrace Innovation: Technology enhances, not replaces, the human touch in hospitality
Stay Competitive: Adapting to technological advancements is essential for success

Final Thought: By blending the warmth of hospitality with the precision of technology, we create **unforgettable experiences**





Thank You!

Tai Nguyen Naiscorp - Emoi

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