The Future of Travel Hospitality:

The Changing World of Experiential Travel and Hospitality in the Age of the Fourth Industrial Revolution

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"We are at the beginning of a revolution that is fundamentally changing the way we live, work and relate to one another ."

- Professor Klaus Schwab
  Founder and Executive Chairman, World Economic Forum

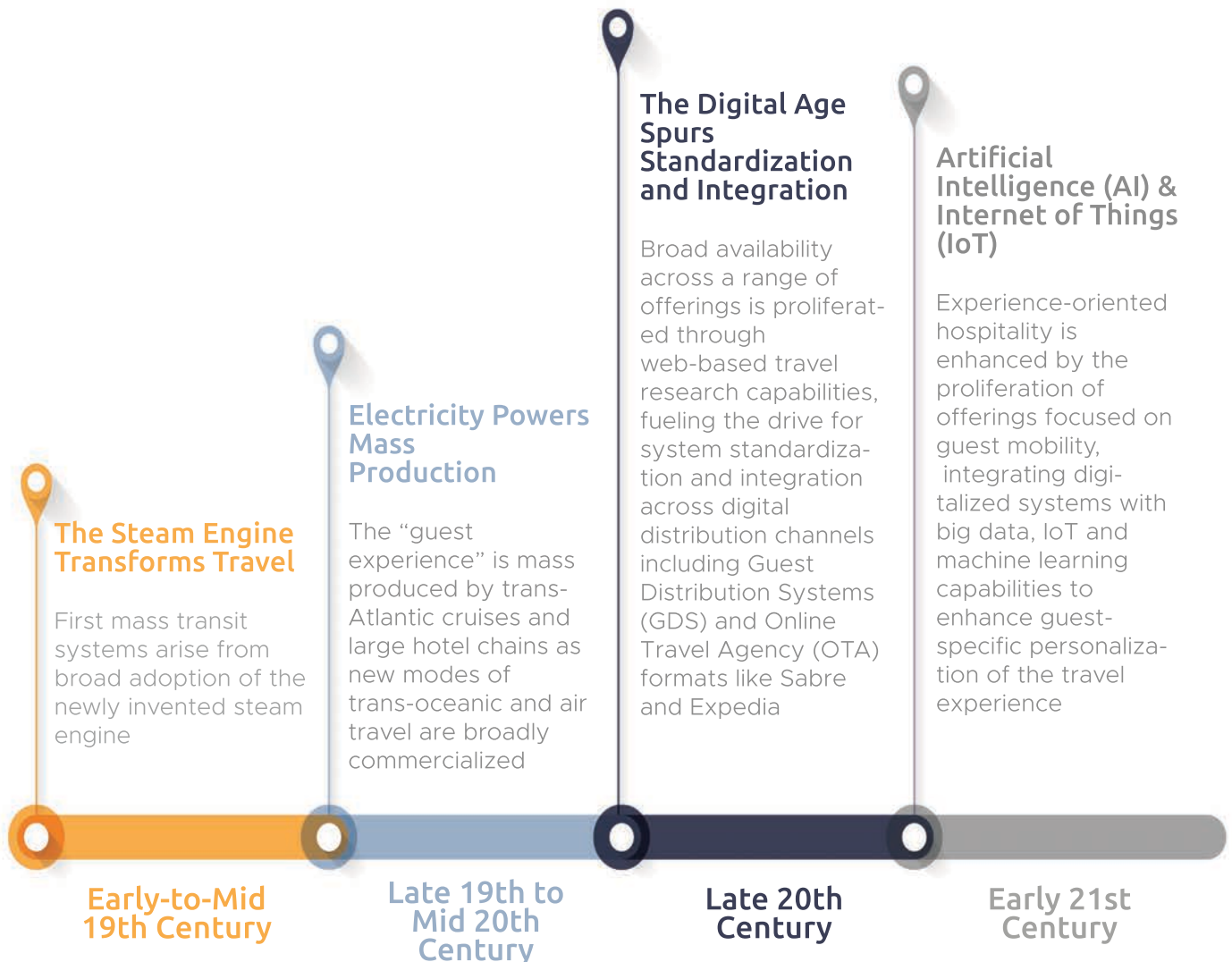The fourth industrial revolution is upon us.

This new revolution, known as Industry 4.0, is fueled by dramatic advancements in technology that fuse together our digital, physical and biological worlds.

Emerging breakthroughs in artificial intelligence and robotics have given rise to self-driving cars. Internet of Things capabilities are industrializing automation and changing the nature of work. High-tech sensors monitor at-home cardiac patients' heart health every minute of every day.

And the transportation, manufacturing and medical industries aren't alone in experiencing the profound impacts of emerging, disruptive technologies. Just as its advances have been spurred by each prior industrial revolution, hospitality is poised to undergo dramatic changes instigated by Industry 4.0.

The Evolution of Hospitality Powered by Each Major Industrial Revolution

The Steam Engine Transforms Travel

First mass transit systems arise from broad adoption of the newly invented steam engine

Early-to-Mid 19th Century

Electricity Powers Mass Production

The "guest experience" is mass produced by trans-Atlantic cruises and large hotel chains as new modes of trans-oceanic and air travel are broadly commercialized

Late 19th to Mid 20th Century

The Digital Age Spurs Standardization and Integration

Broad availability across a range of offerings is proliferated through web-based travel research capabilities, fueling the drive for system standardization and integration across digital distribution channels including Guest Distribution Systems (GDS) and Online Travel Agency (OTA) formats like Sabre and Expedia

Late 20th Century

Artificial Intelligence (AI) & Internet of Things (IoT)

Experience-oriented hospitality is enhanced by the proliferation of offerings focused on guest mobility, integrating digitalized systems with big data, IoT and machine learning capabilities to enhance guest-specific personalization of the travel experience

Early 21st Century

The Fourth Hospitality Revolution

The hospitality space is just beginning to bridge the physical and digital worlds as it starts to align with Industry 4.0. New technologies, increased data access, and enhanced digitization are rapidly changing what is required for the hospitality provider toolset—and must ultimately resolve the fundamental fractures between intermediary parties, legacy services, and de-centralized offerings.

Brought on by Industry 4.0, the hospitality professional of the 21st century must leverage 3 essential digital capabilities, enhanced by the power of real-time data, to deliver on the promise of the guest experience.

Insights On-Demand

Customer and operational data is easier to capture and analyze in real-time than ever before. Advances in API capabilities, machine learning algorithms, and web-based IoT dashboards are making big data rapidly accessible to hospitality professionals for the first time.

Actionability and Control

Increased data accessibility empowers hospitality providers to make more informed operational decisions that keep pace with business today. Information at their fingertips leads to greater responsiveness and increased responsibility for services quality, product safety, and effective, real-time identification and management of guest needs.

AI-Powered Engagement

Advances in AI create more points of engagement for guests that must be leveraged to improve customer experiences and drive loyalty.

The Industry 4.0 revolution is already underway. Consider the following examples of how it is currently at work within hospitality:

TECHNOLOGY

In the race to determine the industry-standard AI platform of tomorrow, technology leaders like Google and Apple are expanding AI and machine learning capabilities to third-party developers, making it easier for companies to create intelligent applications.

According to a recent article in *The New York Times*:

"[Leading tech] companies are developing all sorts of tools that will make it easier for any operation to build its own A.I. software, including things like image and speech recognition services and online chatbots."

"Building A.I. That Can Build A.I."
Cade Metz, *The New York Times*

Third-party providers in the hospitality space are leveraging these self-service capabilities to create next-generation tools that deliver significant efficiencies and enhance guest-centric capabilities.

TECHNOLOGY

For example, a new open-solution platform called HAPI is giving hotels greater ownership over their big data.

HAPI leverages APIs to integrate data from distinct hotel vendors, disparate systems and third-party integrators into one secure platform. For the first time ever, hotels can access and manage their own data sets—from check-ins, occupancy, HVAC usage, security and more—within one centralized platform. HAPI combines, filters, cleanses and enriches data streams to provide hotels real-time guest insights and build out enhanced CRM profiles to help communicate more effectively with visitors.

"Developing an understanding of traveler journeys can help predict the needs of guests as they move through their purchases and physical journey using offers and services that truly consider of the needs of their journey. The concept is to move beyond a look-alike transaction and endeavor to understand and serve each individual guest. Practically speaking, you should use automation to speak to incoming and in-house guests at each step of their journey, leveraging personalization from their comprehensive profiles, to offer services and upgrades that establish loyalty while maximizing revenue."

- Luis Segredo
Chief Executive Officer, HAPI

TECHNOLOGY

An innovative restaurant start-up called Kitro leverages AI to help kitchens reduce food waste and improve profit margins. Its innovative tool applies advanced image recognition capabilities and machine learning algorithms to identify food waste patterns in restaurants, so kitchens can optimize their operations and practices.

Kitro believes these efficiency improvements will drastically reduce food waste and overall cost while generating positive environmental impacts.

"KITRO is simplifying food waste management by providing restaurants and canteens with the first fully-automated food waste measurement solution. With KITRO, our customers get a holistic overview of their food waste, so they are empowered to mitigate it while having a positive impact on the environment."

- Anastasia Hofmann
Co-Founder, KITRO

STANDARDS

Technology advances aren't the only demonstration of the new capabilities brought on by Industry 4.0. The OpenTravel Alliance, an open-source organization responsible for developing and maintaining interoperability for disparate systems in all verticals of the travel industry, is developing the next generation release of its OpenTravel Technology.

OpenTravel 1.0 is the current industry standard for connecting disparate systems across the travel industry and carrying tens of millions of messages between partners every day. Its OpenTravel 2.0 product has shifted to an object-oriented paradigm that leverages REST APIs to facilitate a seamless flow of information. This new modular approach reduces implementation challenges while providing enhanced consistency, simplicity and flexibility, ultimately generating productivity enhancements for users.

"OpenTravel 2.0 standards will significantly reduce the barriers to working with providers and suppliers across the travel industry. The simplicity and consistency of the REST APIs will allow small development teams to quickly create traveler experience focused applications while allowing the suppliers to cater to niche markets that were previously unreachable."

- Dave Hollander
OpenTravel 2.0 Lead and Key Contributor
Expert Travel Technology Strategist and
a Creator of XML

PREDICTIONS FOR THE FUTURE OF HOSPITALITY

The wave of change propelled by Industry 4.0 will continue to revolutionize hospitality through improved connectedness, integration and aggregated analytics across the industry as a whole. The entrance of new technologies and standards will drive 3 major trends that will dominate the travel and hospitality industry in coming years:

Trend 1: Increased flexibility & agility

Provider access to more flexible, less cumbersome distribution systems and technologies will improve agility and greatly reduce time-to-market for new partnerships and guest-centric offerings.

Today it can take up to six months to integrate a new partner into a distribution channel. Advancements in API development and innovations spurred by OpenTravel 2.0 technology will dramatically shorten this iintegration process—getting new partners up and running in just weeks or days instead of months.

Trend 2: Rise of data & machine learning partnerships

Increased access and improved ease of usability for vast volumes of hospitality and guest data will accelerate the need for technology-driven integration and analytics capabilities.

Once providers experience easy, on-demand access their data, the focus shifts to how we can best leverage it to deliver on the guest experience promise. Successfully integrating data across operations, customers, usage, reservations, maintenance and revenue data will require applied data science through innovative technologies and strategic and partnerships to derive impactful business-driven insights capable of transforming the business of hospitality.

Trend 3: Improved customer engagement & loyalty

Enhanced technological capabilities through AI powered chat bots, integration with social media, automated mobile messaging and push notifications, and increased personalization will facilitate guest engagement, drive customer loyalty, and accelerate ROI.

Research has demonstrated that mobile apps lead to higher customer satisfaction ratings from guests. Tools that streamline distribution processes and improve digital access to customized services will result in higher rates of customer satisfaction. As a broader range of hospitality providers embrace the digital space brought on by Industry 4.0, advanced digitization of the guest experience evolves from a nice-to-have to need-to-have offerings.

IMPACT OF POSITIVE CUSTOMER EXPEREINCES:

10X

Consumers who believe personalized experiences are very appealing are 10x more likely to be a brand's most valuable customer

5X

Engaged customers are 5x more likely to buy only from the same brand in the future.

95%

Increasing customer retention by just 5% boosts profits by 25 to 95%

CONCLUSION

As the world braces for the Industry 4.0 revolution, the hospitality and travel industry is on the brink of embracing its own existential evolution. In the next decade, new technologies, data capabilities and changing consumer demands will completely reinvent how providers, vendors and customer interact within the world of hospitality. digitization of the guest experience evolves from a nice-to-have to need-to-have offerings.

Are you ready to embrace the new wave of change?

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