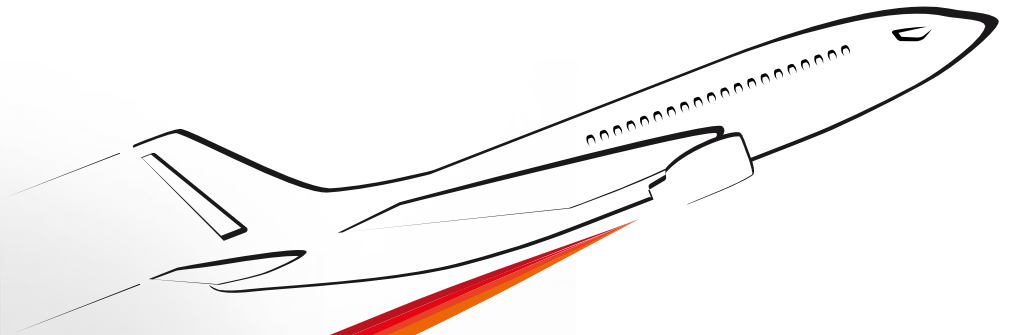


**WNS**



# **TOP 5 TRENDS DISRUPTING THE AIRLINE INDUSTRY**

**A WNS PERSPECTIVE**



# TOP 5 TRENDS DISRUPTING THE AIRLINE INDUSTRY

## A WNS Perspective

Technology has become a common disruptor across sectors and it has been no different for the airline industry. However, airlines have emerged unscathed, as the industry registers the 10th consecutive year of profitability. The International Air Transport Association (IATA) has forecast a net profit of USD 29.3 Billion in 2020 for the industry.<sup>1</sup> To meet such ambitious goals, airlines need to successfully navigate their way around evolving passenger expectations, regulatory changes, fuel costs and fierce competition. Here are five key trends that we believe are shaping the future of this industry.



**Connectivity Takes Flight**



**Era of Robots**



**Evolving Airline Distribution**



**Digital Twins**



**Transforming Air Traffic Management with AI**



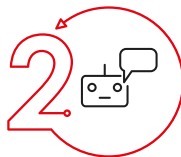
<sup>1</sup><https://www.iata.org/contentassets/690df4ddf39b47b5a075bb5dff30e1d8/iata-future-airline-industry.pdf>



## CONNECTIVITY TAKES FLIGHT

The in-flight entertainment and connectivity market is expected to touch USD 7.65 Billion by 2023.<sup>2</sup> From being a differentiator to a must-have, in-flight wi-fi has seen considerable uptake in adoption over the last decade. In fact, forecasts suggest that the number of commercial aircrafts equipped with in-flight entertainment and connectivity will grow to more than 20,500 by 2028.<sup>3</sup>

Airlines are continuously trying to improve the in-flight entertainment experience for passengers by providing Android-led in-seat platforms, and wireless internet connectivity. But in-flight passenger engagement goes much beyond entertainment to include e-commerce and retail.<sup>4</sup> Airlines are now partnering with third-party merchants to develop an in-flight retail environment. As airlines continue to adopt in-flight technologies, they will need to balance high costs associated with connected technologies and hardware, and tightening data privacy norms.



## ERA OF ROBOTS

Robotics and automated vehicles are now becoming a priority for the aviation industry. More than 30 percent of the world's airports and nearly 50 percent of the airlines operating from them are looking for partnerships in these technologies by 2021.<sup>5</sup> Automation is already

enabling the resolution of issues during check-in, missing baggage, cleaning and maintenance, and security. Last year, a leading U.K. airline installed 72 automated bag-drop machines while experimenting with self-driving luggage vehicles at Heathrow airport – a part of the airline's investment of GBP 6.5 Million. Another airport in Japan has deployed a robot with a 360-degree camera and a huge display. It can communicate with passengers in Japanese, Chinese, Korean and English, and help them get around the airport. It also uses Artificial Intelligence (AI) technology to recognize faces as well as signs of an emergency situation.



## EVOLVING AIRLINE DISTRIBUTION

Airline distribution has seen a massive shift over the last decade – in the way travelers search and discover their journeys as well as the way airlines are making their flights and related products discoverable. This shift has compelled airlines to change the way their products are presented to customers. Developments such as New Distribution Capability (NDC) and ONE Order are transforming the way air tickets are sold, independent of the traditional global distribution system. New platforms have been built, offering Application Product Interfaces (APIs) that connect to the airline distribution data at a deeper level, enabling transparent transactions and simpler ticketing. In fact, 21 IATA NDC leaderboard airlines have set themselves a goal of reaching 20 percent of their indirect sales through an NDC-powered API by 2020.<sup>6</sup>

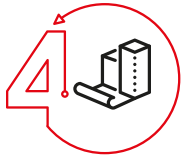
<sup>2</sup><https://www.marketsandmarkets.com/Market-Reports/in-flight-entertainment-communications-market-860.html>

<sup>3</sup><https://advanced-television.com/2019/09/06/forecast-in-flight-entertainment-revenues-to-double-by-2028/>

<sup>4</sup><https://www.wns.com/insights/blogs/blogdetail?727=airline-loyalty-%E2%80%94-digital-empowerment-for-a-connected-crew>

<sup>5</sup><https://www.sita.aero/resources/type/surveys-reports/air-transport-it-insights-2018>

<sup>6</sup><https://www.phocuswire.com/iata-air-retailing-symposium-takeaways>



## DIGITAL TWINS

A digital twin replicates a physical asset in a virtual form. When deployed at airports, digital twinning can provide a graphical representation of the place to track daily activities, thereby enhancing the knowledge-sharing and decision-making process. Société Internationale de Télécommunications Aéronautiques (SITA) Lab is working on developing a fully functional digital twin that will improve decision-making at airports.<sup>7</sup>

Hong Kong International Airport has created its first digital twin to predict what the airport will be experiencing in the near future.<sup>8</sup> This virtual model has been completed for only a part of the airport that is accessible by passengers, while the rest will be added in stages. Life-like visualization has been made possible by the digital twin which is enabling seamless design review for new construction projects. Additionally, predictive analytics is providing maintenance alerts, enabling effective resource deployment to improve airport services and reduce overhead costs.



## TRANSFORMING AIR TRAFFIC MANAGEMENT WITH AI

The number of airline passengers is constantly growing and is expected to double by 2037.<sup>9</sup> This will substantially increase the number of operating flights on a daily basis, which will fundamentally impact air traffic management. Additionally, with climate change, many places across the globe are experiencing erratic weather, causing significant flight disruptions. New-age technology adoption is therefore becoming an imperative in supporting an increasingly complex and crowded airspace. London's Heathrow airport has invested in the creation of a 'digital library tower' leveraging ultra high-definition cameras and AI technology.<sup>10</sup> This tower will enable air traffic controllers to get a clear view of the airport irrespective of the weather, and also help in safety assessment, flight planning and improved prediction.

The airline industry has witnessed its fair share of hurdles over the last decade – from the rise of low-cost airlines to bankruptcies to unstable fuel prices. However, the industry has managed to emerge victorious against all these odds. As consumer priorities and expectations change alongside regulatory norms, early-adopters will reap maximum benefit through their transformation efforts. As technology continues to be a 'game-changer' for the industry, sky is truly the only limit for airlines!

<sup>7</sup><https://www.futuretravelexperience.com/2020/01/12-technology-trends-for-airlines-and-airports-to-focus-on-in-2020/>

<sup>8</sup><https://www.opengovasia.com/hkia-develops-digital-twin/>

<sup>9</sup><https://www.iata.org/en/pressroom/pr/2018-10-24-02>

<sup>10</sup><https://www.5gtechnologyworld.com/ai-aimed-to-transform-air-traffic-control/>





## About WNS

WNS (Holdings) Limited (NYSE: WNS) is a leading Business Process Management (BPM) company. We combine our deep industry knowledge with technology, analytics and process expertise to co-create innovative, digitally led transformational solutions with over 400 clients across various industries. The industries include banking and financial services, consulting and professional services, healthcare, insurance, manufacturing, media and entertainment, retail and consumer packaged goods, telecommunications and diversified businesses, shipping and logistics, travel and leisure, and utilities and energy. We deliver an entire spectrum of BPM solutions including industry-specific offerings, customer interaction services, finance and accounting, human resources, procurement, and research and analytics to re-imagine the digital future of businesses. We have delivery centers worldwide including in China, Costa Rica, India, the Philippines, Poland, Romania, South Africa, Spain, Sri Lanka, Turkey, the United Kingdom and the United States.

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