

Digitalisation

Presented by IATA

What is / is not digital transformation

Digital Transformation is a broad topic and there is no lack of definitions to describe it. From the airline industry perspective, IATA likes to define it as value creation through deconstruction of legacy processes based on physical assets, and reconstruction of processes leveraging digital assets. The interesting part of this definition is that it stresses what digital transformation is not: Digital Transformation is not about adding a layer of technology or electronic messaging on top of a legacy process. A well-known illustration is the electronic ticket: moving from paper tickets to electronic added benefits, evaluated at \$3bn savings per year, however it was not Digital Transformation as it maintained the attributes of a physical ticket, whereas moving for tickets to orders will completely remove the need for tickets.

Why Digital Transformation for the airline industry?

The world began its digital transformation in the twenty-first century. For example, in the world of payment, after moving the credit card to the electronic world by using the card number in online forms, new digital players proposed payment solutions that did not rely on any legacy card processes anymore. The reason for extending a physical process to an electronic one is continuity: the payment ecosystem comprising banks and card schemes can rely on the same card numbers and associated processes. However, the reason for disrupting the legacy processes and moving to a digital process is cost saving and agility: using card numbers online is a source of fraud, using a central number-based system precludes new solutions like instant payment or electronic wallets.

In the world of aviation, the digital transformation is still at its beginning. For flight or ground operations, the introduction of technology mostly supports legacy processes. For commercial operations and customer experience, there are some examples of digital transformation, with an attempt to redefine processes, but it is still limited. In the cargo world for example, the priority is still to move the transport documents (known as air waybill) to an electronic version. The sense of urgency comes from the customer expectations and the competitive pressure, with airlines at risk of losing the contact with their customers. This explains why travellers have access to airline apps comparable to digital players, but most areas in air transport have not been transformed yet.

Recognition of multiple tracks – Leaders and Followers

On a positive note, the digital transformation of air transport has started in a few tracks. A few leading airline groups have transformed a part of their business to compete with digital players. For example, an airline has implemented offers and orders which can be sold and fulfilled by travel partners that have no footprint in legacy air travel processes. In another example, an airline has evolved its business model to become a travel app, and soon a “super app”, offering services like food delivery or instant payment.

Whereas the air travel industry is known for its global standards and the consistency of its services, digital transformation recognizes that a few leading organizations will drive the change in selected tracks where the benefits are more visible and more achievable. It does not mean that the air travel industry will lose its globally consistent services, which make it easy for a traveller to buy a service and travel anywhere. It means that the change will come where it makes more business sense, where customer and competitive pressure is more intense.

IATA's Digital Transformation agenda and priorities

Recognizing the value of Digital Transformation and the need for a coordinated approach at industry level, the IATA Board of Governors endorsed a digitalization strategy for the industry, sponsored by a newly formed Digital Transformation Advisory Council (DTAC), comprising 15 senior digital airline leaders. DTAC identified six priorities to lead the air travel industry through its digital transformation. (1) Digital Maturity Index: DTAC recognized the need to define a vision of a digital airline by 2035 and to measure the progress on an annual basis. (2) Digital enablers: a digital infrastructure relies on key elements, such as an Aviation Industry Data Model, an API ecosystem, an Identity Management framework, and an Aviation Data Exchange protocol. (3) Architecture: all digital initiatives must be connected and complementary. (4) Data: the most valuable asset of a digital airline is its data, not its aircraft; data must be properly governed and protected. (5) Innovation: DTAC recognized that innovation in a digital world is critical and does not operate like in the past, e.g. working with developers. (6) Security: Cybersecurity aims at protecting digital assets from external threats.

Having defined its priorities DTAC can now provide direction for each topic, in terms of advocacy, standards and development of services. DTAC will monitor the progress for each topic and provide support when needed. For more information about DTAC, visit the [IATA website](#).

Practical business application (rather than hype)

The approach of digital transformation consists in challenging all existing legacy processes. The approach starts with the customer expectations and the value creation. Unlike what media usually report, digital transformation is not about a technology, like AI or blockchain, looking for a problem to solve.

A practical example of business application is the distribution of airline products. In the 1970s, accountable documents were in paper, airline products were regulated and defined by their schedule and fares. Due to limitation in technology, airlines delegated the creation of offers to third party technology providers, which embedded the regulated products into their technology. Four decades later, technology is ubiquitous, airlines don't need to delegate the creation of offers to third parties anymore. They have the capability to create the offers that customers expect. The business driver is to give transparency and choice to customers who buy travel, and to enable airlines to differentiate their products. Whether the new solution is based on AI and Blockchain, is a consequence, not the driver.

Link to skilling the industry

While the air travel industry recognizes the need and timing for digitalization, and identifies priorities for its transformation, it acknowledges that skills are a key success factor. The skills that made the air travel industry successful at connecting and enriching the world until 2020, are not the same that will take it through 2030. During the next decade of changes, many tasks will be much better handled by machines. Indeed, machines are learning to see, to make decisions, to anticipate, and to support or replace human judgement and errors. While more tasks can be delegated to machines, new skills are required to build and manage software and machines. New skills are needed to manage data and related policies. New skills are needed to manage business across modes of transport, enabled by seamless integrated technology. New skills are needed to manage data-enabled safety and security.

Moving to a digital world is bigger than revisiting processes and implementing technology. In a digital world, employees will work for multiple companies over their career, maybe at the same time. They will do different jobs and will continue to learn new skills throughout their careers. The role of a trade association, like IATA, will evolve accordingly. Advocacy is probably the area that will be the last to be automated and handled by machines. The development of standards has already completely changed, from documenting processes to enabling developers to build interoperable software. The provision of products and services is already evolving from a transactional business to a platform, where the value is in the efficient collaboration between members and partners, more than in the individual transaction itself.

While airlines began as transactional companies, carrying one passenger at a time, identified as one transaction record, they are now becoming retailers, knowing their customers and being able to sell any product at any time. Digital transformation will enable airlines to become integrated, multi-modal, mobility service providers.

- END -