

Training Of Pilots: Digitalization Transformation

The article discusses the training of pilots in the process of the global digitization, the structure through which methodology of training is being changed now. The author analyzes technological problems, defines the necessary equipment for the digital transformation and proposes solutions for the introduction of digital technologies in the area of education.

What opportunities digital transformation of training pilots provides

Digital transformation offers many opportunities, but it also implies addressing the specific challenges of the industry. Programmes spanning many years, limited levels of production, highly technical and complex products and a highly regulated environment are all factors that come with the advent of digital transformation. At the same time, the new-generation devices used allow for the collection of data on export growth: they are currently very little used, but offer significant benefits for future activities, such as services related to forecasting export growth. Major players in the sector are now making major investments and projects. Major GE initiatives include the acquisition of 3D printers and the Predix digital platform offensive, the Boeing Black Diamond initiative, and the launch of the Airbus Digital Transformation and Communication Program, a suite and initiatives in Silicon Valley.

Innovative technologies in training pilots

In our study, we look at the changes brought about by the introduction of innovative technologies to train new generation aircraft pilots. These new aircraft, based on the example of the French airbuses (Cirrus SR20 and Pilatus PC-21), equipped with new technologies (including glass cabins and on-board simulations) that represent a technological breakthrough. The nature and diversity of the pilot's skills and the training process determine their acquisition. The use of the results of a number of technical and operational studies conducted by specialists for the Army Headquarters provides striking examples of new ways of training pilots.

In our study, on the one hand, we show that new features are not neutral in the acquisition of technical support. On the other hand, and more generally, we see that the training of pilots defines: an environment conducive to the rational and effective functioning of the air force pilot training. We note that new future pilots develop fundamental technical skills in the initial stages of the training process. Secondly, it identifies the conditions to ensure using built-in simulation techniques to train pilots.

Digital transformation mainly involves the use of process automation technologies and increased passenger traffic. According to the authors, this includes cognitive systems based on the analysis of integrated data from the respective monitors in order to predict and improve processes (Sorin E. and Cassandra V., 2019).

We can safely say that education and training for the implementation of the digitalization process is a very important component. Airport management needs to understand the objectives and benefits of the digitalization of each employee and

create an organizational culture.

This trend shows the advantage of digital initiatives. We can observe that they affect not only the technological and organizational aspects of the airport and its processes, but also all participants in aviation activities.

Intensive education and training

Today, there is an intensive digitalization of education and training. In particular, the digital revolution in training pilots is difficult to ignore, but difficult to accept. In addition to the necessary investments, the process of digital transformation in this sector begins with a vision defined by top management, the ability to trust and rely on starters or digital players in a more open and innovative model. Such openness to the outside world is essential, but will require radical changes in industry culture.

However, against the backdrop of universal digitization and given its inevitability, first, in a globalizing world, and second, its usefulness to the individual and society in many spheres of life, culture can highlight its particular role as a counterweight to the use of digital technologies.

To become a pilot, students have to achieve skills and competencies in both necessary knowledge of aviation and in conducting the airplane. The first step is usually to finish a basic school course. This course is consisted of typical classroom lessons on flight theory and aircraft systems taught by a basic school instructor. While online basic school courses are an option, most classes full of students, and a teacher in the front of the room are expected to comprehend a lot of information. A successful student in basic school just as any other successful student participates in a class. There are such activities in the class as taking notes, asking questions, and studying the material.

During the practical classes of flight training, students interact with flight instructors in a similar mode, which includes verbal skills, competence and knowledge. Students in English speaking countries must take part in these activities and use language that is not their native one in an appropriate way.

Anyway, these courses cannot neglect the linguistic skills. Students may face with difficulties as widely spoken accent of English and passive familiarization with a variety of different accents. The best knowledge of their skills cannot fully make up full language proficiency. The focus is on concerning both aspects should be placed on spoken language skills, especially in countries where written communication skills are dominant and oral competence skills are frequently neglected in the language classroom.

Moreover, future flight students who plan to do their training in an English-speaking country should be confident that improving communicative competence, is an important way their study further career.

It is our assessment that universities and educational institutions should adopt educational and training strategies to train the next generation of aviation employees. We contend that digitalization affects the international partnership. Indeed, the application of previously analyzed digital initiatives will help to reduce waiting times and minimize queues, thereby ensuring a continuous flow and improving the perception of passengers by giving them more time to visit restaurants, shops, etc., which will result in higher revenues for the airport from non-edification revenues.

Conclusions

In our opinion, the introduction of new technologies for the automation of specific air transport processes demonstrates that personnel are not prepared to face the challenges of mastering new technologies. In addition, the considerations of organizational culture for all market participants discussed in this article have proven to have a significant impact on the efficiency of operations and have influenced the process of digitalization.

We predict that improvements in aviation technology will soon lead to improvements in airport operations and management. The development of the management directions proposed in this article is intended to optimize the work of the airport and adapt it to technological and aviation trends.

References

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