



Deployment of eLearning

Airlines have been pioneers in using educational technologies for decades. Prof. Dr. Erwin Bratengeyer and Captain Christian Albrecht explain why this long tradition of computerised training in the aviation industry has made it much easier to take advantage of the potential benefits of eLearning.

Training and re-training of flight crew, ground staff, engineering and maintenance personnel is mandatory to the airline industry and in order to fulfil these statutory obligations and, likewise, to offer sophisticated learning opportunities, suitable systems and methods are required. This is why today, almost every airline operator is involved in eLearning initiatives.

Automation

A learning management system (LMS) is key to proper deployment of eLearning in an organisation with lots of users and training to manage. In a nutshell, LMS is a software system that automates the administration of training events and supports the management of learning in an organization. It provides the infrastructure centralising two sets of components associated with training. Firstly, Management/Administration: training programme, enrolment, certification, reporting, and secondly, Learning/Teaching: learning

activity, content delivery, communication, collaboration, and assessment. The LMS market is very fragmented so customers currently have a choice between more than a hundred products.

Additionally, a new generation of emerging LMSs is about to change the common understanding of what an LMS does while still retaining its mission critical functions. According to The E-Learning Guild Research, next-generation learning management systems will open up to various access channels, to dynamic containers, to social networks, to tracking user behavior across a variety of sites and across multiple devices. Be that as it may, the prompt integration of all those advanced LMS features might only benefit certain organizations, whereas many other organizations are still struggling with traditional LMS implementations.

Due to the multiple facets of a learning management system, its implementation is a complex process which requires

thorough planning as it involves risks related with cost, time and acceptance. An LMS needs to be deployed effectively with the support of experts and professionals from both the management domain and the education domain. A change management approach should be defined and executed in order to prepare stakeholders and key users for their new roles in the new training processes. The document PAS 1032-1/2, which is a DIN specification on Education and Training with Special Emphasis on e-Learning, is a well specified implementation process and may serve as a guideline.

Selection

Airlines have requirements that typically result in a good justification for implementing an LMS. Unlike most other industries, airlines are heavily regulated in many areas ranging from security, to food service, to mechanics and everything in between. Airlines have complex rules around when training expires and how

frequently retraining must occur and, in addition, aviation training is very revision sensitive. Very few packages can meet the requirements of a corporate implementation at an airline off the cuff. As a rule, when an airline selects a learning or performance management system, the airline should focus on these and other capabilities that are specific to the industry during the selection process. Too often, airlines seem to go with the simplest or most attractive solution and find themselves either duplicating work or not being able to get enough value out of the system to justify the cost. Being able to continuously measure the effectiveness of the training on the business as a whole, and being able to accurately identify what training needs to be developed based on the airlines performance is also absolutely critical.

As an example, Etihad Airways, a fast growing airline in UAE, serves about 80 destinations and naturally faces numerous challenges dealing with training and communication issues. Etihad implemented an LMS for operations related courses in April 2006. A comparison of five suppliers and references had been conducted and one product was selected. The product as implemented, however, did not fulfil the original specification and requirements as specified during the scoping study. The challenges of organisational processes required to implement a complex LMS had been underestimated and additional effort had to be invested to make the system run successfully. The project roadmap focused on the technological challenges of the implementation rather than on the business processes that would change with the LMS execution.

The LMS had to serve various purposes and different user groups including ground staff located all over the world, flight crew, cabin crew, aircraft engineers, customers, and other partners, all of them with their intercultural diversity. The majority of users were readily accepting training delivered by the LMS, however, around 10% put up resistance. For example, users from Pakistan tended to refuse instructions from a computer. Access conditions for all those dislocated users might vary considerably in terms of bandwidth and security. At some times, more than 600 were accessing one online course at the same time. The courses offered relate to three different types of content: a) regulatory required training, b) service

oriented content, and c) policies and procedures CBTs. Tracking and certification had to be managed either way. Each of the courses had to be approved by the regulator or by an internal acceptance forum, no matter of the type or origin of the content. Content development proved to be too expensive when developed in-house by subject experts. Outsourcing was more economical but required very strict quality control procedures. Service also turned out to be a critical issue. Help desks service had to be available continuously providing support for login-related requests as well as for technical service. Additionally, it turned out that content specific requests dealing with comprehension questions, bug reports, and the like were required.

Successful LMS implementation requires that all stakeholders are vested in the project. It is recommended to gain business buy-in and the committed support of senior management of as many business areas as possible. Involve IT, HR, line managers, executives, works committee, subject experts, and end users. There might also be a need for adopting company policies that allow trainees to take time from their daily work to utilize the LMS, which might be only one aspect of a full-span change management approach. In addition, having a strong information campaign is key to overcoming potential acceptance problems. While the airline could simply make it compulsory to take certain courses, motivation to get people to use the system of their own accord might be more sustainable. The main issue is to provide some kind of improvement over the existing way of training. More comfort, more choice, more control, more options, more service, and more personal benefit should be seen as just as important as the IT and business process improvement issues to ensure a successful implementation. **cat**

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Prof. Dr. Erwin Bratengeyer and Captain Christian Albrecht are members of the Aviation Industry CBT and eLearning Committee (AICC) and the full article is available at www.aicc.org

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