ELEARNINGNEWS ARTICLE

Year 5 - number 141 Wednesday 13 January 2021

Personalising online courses with adaptive learning

What are the tools that help to customise an eLearning course and what is the role of artificial intelligence?

One of the constant trends in eLearning is the search for a way to offer a better **training experience** to learners. Whether it is corporate, formal or informal training, learners always have different ways of learning. For an **effective training course**, it is important to take into account what the learning needs of each learner are and what is the best way to address them. In fact, it is a question of customising an online course and one of the most effective ways of doing this is through the use of **adaptive learning**.

What is adaptive learning and what are its characteristics?

In the context of eLearning, adaptive learning is a computer-based educational method that uses various algorithms to analyse the performance, needs and behaviour of users and modify the content presented accordingly. In itself, therefore, it is a way to personalise the learning experience through the adaptive faculties of **artificial intelligence**. Not only by analysing parameters do we understand what is the best solution for each student, but we learn together with the student and make better decisions instantly.

The hallmark of adaptive learning, in fact, is that it happens in real time: as the student answers the questions, the machine immediately reprocesses the input provided to be able to propose the next suitable questions. During the lessons, the parts that the student already knows are skipped and the focus is on the gaps.

Finally, adaptive learning offers personalised feedback on the students' progress with timely feedback on their answers.

How does adaptive learning work from the learners' point of view?

From a design point of view, adaptive learning is based on **algorithms** and the **data** it receives from students' actions. Putting ourselves in the shoes of the learners, the first encounter with adaptive learning is to answer **targeted questions**.

In the business environment and beyond, it is often the case that learners themselves are not clear about what their needs are. Adaptive learning techniques make it possible to determine needs indirectly, through a series of questions and analysis of the answers according to precise parameters set in the design phase.

How does adaptive learning personalise online courses?

The **personalisation of an online course** touches every aspect of learning:

- **Lesson content**: depending on the answers given by the student, the system is able to establish the level of the lesson and determine what content to offer, repropose, deepen.
- **Learning style**: if a student spends a lot of time watching videos, it is very likely that the system will offer this type of content more frequently, also taking into account the effectiveness of this type of training through quizzes at the end of the module or course.
- **Mode of assessment**: if the data collected by the system indicates that the student has difficulties in learning by reading written texts, for example, it is possible that video quizzes are offered as a mode of assessment or, on the contrary, that the transcription of videos is used to develop reading comprehension skills.

It all depends on the type of course, the training objectives to be achieved and how the parameters are set. The data input, the **student input**, also plays a very important role: it is from the activities that each student carries out during the course that the analysis process at the heart of artificial intelligence begins.

For an effective learning experience, **adapted to the precise needs** of each student, an adaptive learning system not only provides the right content, but also pays attention to the way in which this content is used (video, text, audio) and adapts the assessment **methods accordingly**.

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