

Why is adaptive learning the future of corporate training?

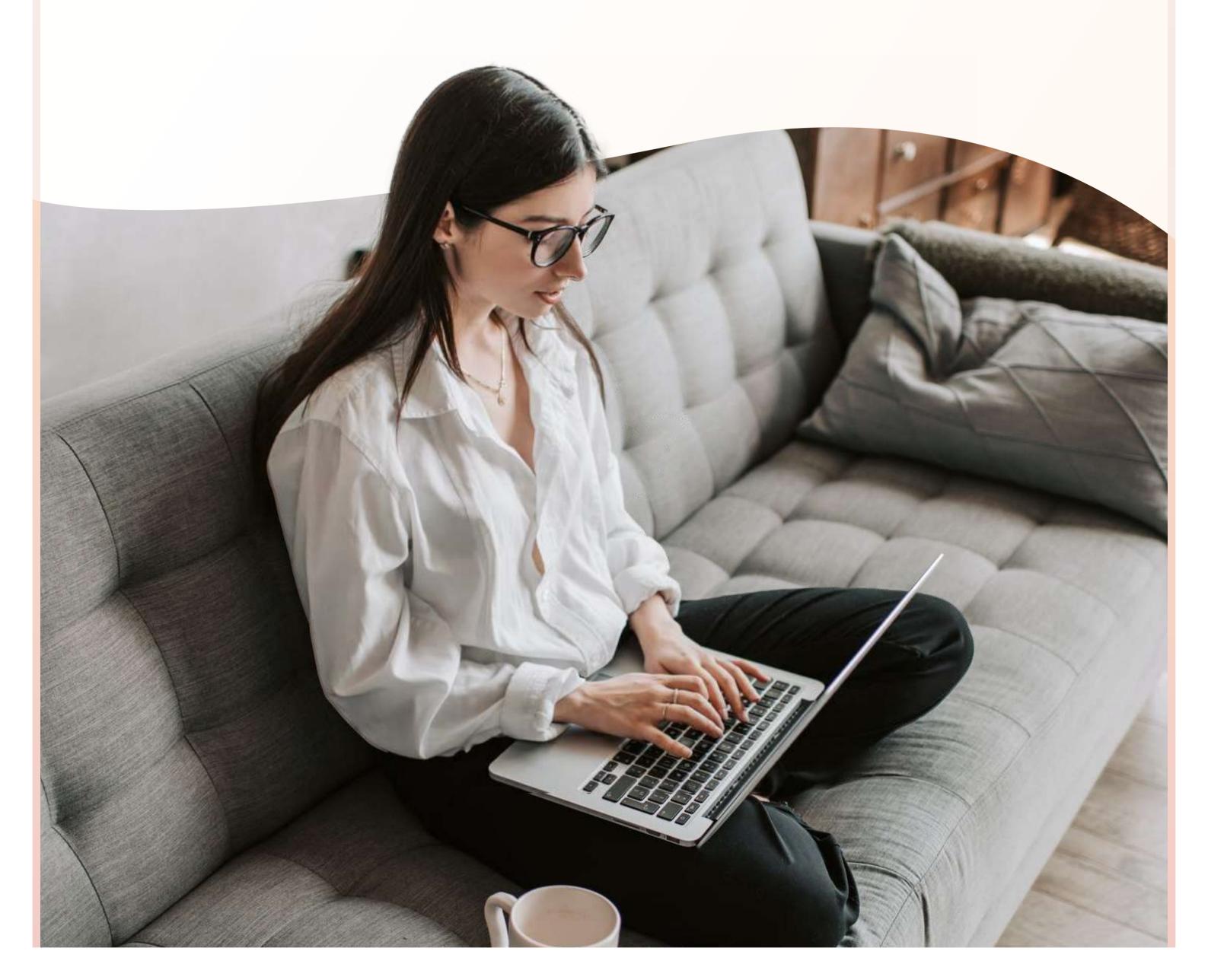


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Introduction: What is adaptive learning?

"Recommended for you" - this personalization mantra seamlessly corresponds with our everyday digital transactions. Most brands know what we have, what we want, or what we might want. With this information, they can smoothly guide us to make certain decisions and actions. Google, Netflix, and hundreds of other firms pulsate on our data for this purpose. Outside of the walls of the workplace, employees are inundated with this standard. When it comes to workplace learning, however, this level of personalization does not come easy. Employees often question, why are we having to struggle to find and apply the right knowledge at work? To answer these questions and fulfill needs in the modern workplace, organizations must create a similar personalized learning experience.

Secondly, it is an understatement that Learning & Development (L&D) must upskill employees at the speed of business. To meet this need, traditional learning approaches do not make the cut to bridge the widening skills gap. They are slow, offer outdated content, become expensive over time, and force employees to spend unnecessary time on training that may or may not matter. It is the equivalent to forcing customers to aimlessly wander in a huge shopping mall, when they can more easily find what they need in the Amazon search bar. Current training practices are simply causing information overload on topics that do not help employees learn and perform on the job most effectively.

Finally, for many years, classrooms around the world have been taught in a way that assumes all learners are equally inexperienced and need the same level of guidance. Research, however, proves that people have different learning styles, which makes a one-size-fits-all approach to teaching ineffective.

The conjunction of these three areas is where adaptive learning can help. How brands personalize certain experiences to your preferences, learning experiences can be the same. L&D can leverage intelligent technology to adapt learning journeys to employee preferences and performance.

How can we define adaptive learning?

Adaptive learning refers to customized learning activities tailored to individual learners' needs, interests, and skills. The personalization determines the level and complexity of learning modules, assessments and practice activities given to the learner. These activities support the learners in a personalized way to acquire skills and knowledge in a domain.

When it comes to corporate learning, this could mean providing custom learning paths based on your employees' varying skills, work experience, and learning paces. When training methods are adjusted to individual needs, learners are more likely to receive accurate and effective professional guidance. With

the aid of adaptive technology, this process is accelerated often leading to fulfilling training gaps at a much faster pace.

The main goal of adaptive learning is to cater to these differences in skills and tailor-make training content as per individual needs, because every learner is unique and has a different background, educational needs, and learning styles. A variety of adaptation techniques are used in designing adaptive learning solutions and this application is based on the individual learner data. Adaptive learning optimizes training content and learning training plan based on where you are in your learning journey.

A simple novice example of adaptive learning technique that we incorporate is to allow a learner to select the level of difficulty (easy, medium, hard) of a particular course. Based on the choice made, the course content changes to match the difficulty level.

As an example, imagine being an experienced paid marketer who wanted to pick up organic marketing skills. While a training program may help, it would be ineffective if the first few sessions were spent diving into the basic principles of marketing — something you probably already know and aren't interested in learning all over again. Instead, you're more likely to be engaged if the program accounted for your existing marketing experience and adapted the learning path accordingly.

The example mentioned above can be credited to <u>Malcolm Knowles' theory of andragogy</u>, which assumes that adult learners learn better when they can make clear connections to their prior experience and when the knowledge is immediately applicable.

Origins

Tracing back to its origins, adaptive Learning stems from two branches of research - Intelligent Tutoring System and Digital Learning. Backed by Artificial Intelligence (AI), intelligent tutoring systems have been gaining momentum in the education space which has contributed significantly to the rise of adaptive learning.

According to a study by Bloom, students that were tutored independently outperformed their peers who were taught in a group with or without occasional feedback. That is because the educators could invest more time in identifying specific areas of improvement and accurately adapt content and teaching to achieve the desired learning outcomes.

What is the difference between adaptive learning and personalized learning?

At this point, it may be easy to confuse adaptive learning for personalized learning. And understandably so. Both aim to cater to individual learning needs by providing a customized experience. But there is an important difference. While a personalized learning path is exclusively designed to meet learners' needs, adaptive learning makes use of technology to make the necessary adjustments.

Using algorithms, adaptive learning technology constantly measures a learner's engagement and performance to identify patterns and trends, which then allows it to adjust the type of content it pushes out. A Learning Experience Platform (LXP), for instance, usually generates adaptive learning paths based on an algorithm. This is particularly useful because learners don't always know what subjects they need more training in.

For example, you could be convinced that you spent two hours less on your iPhone this week than you did last week, but your iPhone's weekly Screen Time report might reveal that you, in fact, spent more time. Similarly, while a learner may feel confident about a certain skill or ability they have, adaptive learning technology can help clarify their actual level of competency. The use of an algorithm, therefore, makes adaptive learning a more precise way to customize learning paths.

Human Customization is the backbone of personalized Learning while adaptive learning is purely driven by technology. By leveraging human personalization along with adaptive technology, learners can co-create experiences in ways that are most meaningful to them. For example, Netflix suggests TV shows based on personal preferences and previous viewing history. These autosuggestions may have been driven by adaptive technology, but they are clearly governed by personal behavior.

How does adaptive learning work?

In an adaptive learning environment, e-learning content (courses/resources/assessments) resides on an online platform. Based on learner data from varying events and activities, adaptive technology selects the appropriate e-learning content for every learner with a personalized learning path. Adaptive technology replicates the actions of a real-time instructor which can be to provide corrective feedback for struggling learners or to encourage outstanding learners with advanced concepts. The bottom line is, how effectively can adaptive technology replicate a real instructor?

Adaptive learning considers a variety of factors before customizing the appropriate activities for learners. For example, adaptive learning technology administered in a classroom can consider some or all the sample parameters below:



Prior knowledge and skill level



Assessment Performance



Learner Progress



Learner preferences



Demographics

Drawing on these data points, adaptive technology then identifies the concepts or skills that require attention. In addition, other advanced algorithms identify the learner engagement statistics such as time spent and logins. This information is consolidated in the overall diagnosis to suggest the appropriate learning actions for each of the learners.

For example, the system can suggest different paths for different learners:

- Learner A: Revise definitions in Module 1.2
- Learner B: Move on to Module 5
- Learner C: Reattempt quiz number 4
- Learner D: Refer additional concepts in Unit 3
- Learner E: Redo concepts in Unit 1
- Learner F: Attend the live webinar on Module 6

To make things easier, the suggestions are automatically fed into the learning systems that will translate into direct activities in the online platform.

On the instructor's side, adaptive technology provides crucial data to understand how the content can be reiterated as per the learner's performance and progress.

In addition to changes in content, instructors can use this data to pinpoint the blocks and areas of improvement for each student.

Providing personalized guidance based on the initial screening and diagnosis is only the first step and requires the users (learners and instructors) to engage with the platform to train the algorithms.

L&D typically implements adaptive learning through Learner Experience Platforms (LXPs) that are designed to personalize training and content with its algorithms. It can accommodate multiple formats of content including articles, videos, podcasts, and more. LXPs also have embedded technology to make learning personalized with learning paths and content recommendations. Often, it is called referred to as the "Netflix of Learning".

Making an LXP the centerpiece of your L&D training it the first step in taking learning strategies to the next level. It is still necessary, however, to have enriched content that can be leveraged by AI. Furthermore, LXPs use many methods to enable its collaborative and social learning tool, but this framework can only work with engaging and quality content.

What are the benefits of adaptive learning?

The personalized nature of adaptive learning can add lots of value to corporate training. Here are a few key benefits of adaptive learning:

It enables personalized feedback

Adaptive learning allows for more personalization, but not just in learning paths. By measuring learners' progress, an algorithm can also provide personalized feedback by suggesting relevant follow-up courses or materials. This enables the feeling of one-on-one instruction, even if learning happens asynchronously.

It presents learners' needs more accurately over time

As mentioned, learners don't always know what they don't know. Adaptive learning technology makes it easier to identify skill gaps and push out the relevant content accordingly. But an algorithm doesn't adapt to a learner's behavior in the moment. As it collects more user data, it gets better at identifying the learner's needs and will make more accurate recommendations over time. This not only helps identify skill gaps but also makes the learning materials needed to close them readily available.

It creates more focused content

As the system is auto-managing the core guidance and feedback process, instructors can focus on creating new or revising content based on learner performance and improve the rules and conditions of the algorithm, if needed.

It saves learners' time

Ultimately, not having to engage in irrelevant learning materials means learners can close skill gaps in a fraction of the time they would have otherwise spent. Within corporate training, this means employees can access the information they need to be professionally successful much sooner.

It is good for large groups of learners

Due to its automated structures, adaptive learning can afford to handle large and diverse groups of learners, which always is a challenge in a classroom environment. That is because instructor to learner ratio is logistically challenging and expensive, which often leads to the same plan for all types of learners. Hence, this traditional mantra of one-size fits all could not possibly succeed when faced with large diverse groups of learners with low/high achievers.

It gives learners autonomy

With personalized learning paths, learners can have a greater sense of autonomy to choose the pace of their learning. As the system offers a personalized experience with visible progress and paths, learners tend to remain more motivated to complete their tasks on time. Also, there is less stress to complete a topic because of the non-linear content recommendation based on progress. Learners can stay assured that the topics being taught are exactly a match to their current skill level and not a general prescription of curriculum.

What are the downsides of adaptive learning? (and what are the solutions)

Along with the benefits, there are a few potential downsides to adaptive learning. Here are a few of these downsides, along with potential solutions:



Lack of Human dimension

Given the automated and intelligent guidance of adaptive learning solutions, there is an enormous amount of personalization provided to every student. This can ensure undivided attention and focus on individual learner progress. On the other hand, over-personalization can make the whole experience quite lonely and isolated for learners. Instructors are available only for remedial guidance in a very passive mode which is not on par with active and inperson interactions. In addition, by making it individual, the model is crushing an opportunity for social peer-to-peer learning that is proven to be more successful. This lack of social and human dimensions in adaptive learning can be hazardous to the psycho-emotional dimension of a learner.

As for the remedy, it is always good to blend the digital learning experience with the human component. Remember that an instructor can never be replaced by technology, for it is only a means in the whole science of pedagogy and never a substitute for in-person communication and feedback. Hence, L&D can craft a meaningful blended learning experience that combines the power of adaptive learning together with instructor-led sessions.



Tedious Content Creation and Review Process

The instructional design process varies for adaptive learning and classic e-learning in some ways. Adaptive learning requires instructional designers to consider all the possible learner paths and scenarios to feed the algorithm to run the content recommender and personalization systems. On the other hand, classic e-learning courses are generally more structured with predefined and predictive elements and do not require as extensive analysis as the former. Hence, for adaptive learning, there is an inherent need to consider a 360-degree perspective that can appear to be tedious both to create and review content.

As a solution, it is a good start to get over the perfect mindset and remember that L&D's vast

experience is generally capable of identifying the most common scenarios that apply to most learner groups. Further, the data generated by adaptive technology will help identify areas that can be improved or added. Thus, with the aid of the same technology, L&D can still pick up the lost groups.

Furthermore, with collaborative authoring tools, L&D can collaborate with subject-matter experts (SMEs) to review the learning paths to cover as much ground as possible during the creation. Finally, the algorithm behind the adaptive learning systems learns over time. So, as the learner continues to use the system, it only improves the algorithm.

3.

Data is only symptomatic

Adaptive learning systems invariably rely on data. They consume and generate a lot of learner data which should be used by the instructors or L&D to diagnose and offer remedial feedback. This brings forth the question of the educator's ability to sift through the data to analyze the patterns. Do they have the right skills? Secondly, this data can only be symptomatic, which may not give any insight into key aspects. For example, the data can tell you how many learners have dropped off but cannot explain why a learner has dropped off or what made a topic difficult. This leaves a vacuum in understanding the learner context.

The role of educators has already shifted from delivering a session to managing and facilitating a session. As a result, it is imperative for educators to develop new skills, including data analysis, which should be followed up by qualitative interview skills to pinpoint the root cause and the problem. Invariably, the entire world already thrives on data. Perhaps it's time for educators to embrace this change and latch on to an opportunity to upskill and leverage new technologies in favor of making the right pedagogical decisions.

How to set up an adaptive learning strategy

Implementing an adaptive learning strategy for the first time can be a lot to plan for. To help you get started, we've put together a few steps you can take:

1.

Create the right environment for adaptive learning

To facilitate adaptive learning accurately, you'll need a digital platform powered by an algorithm that can monitor learner engagement. As mentioned earlier, an LXP is an example of a learning platform that generates learning paths based on algorithms. LXPs are also known for their powerful search functions, which also monitor users' search histories with the goal of providing custom experiences. Some Learning Management Systems (LMS) are beginning to incorporate learning paths and algorithm-based search functions. Before deciding on any tool, here are a few fundamental questions to ask:



Before deciding on a tool:

- How does your solution create a personalized experience? (Understand the extent of Al application)
- What level and types of data mining is required to operationalize your solution?
- What should we (non-technical L&D) know about AI or Adaptive technology while using your solution?
- What types of content formats does your solution support to offer a personalization?
- How does your solution train itself to measure the employee performance and what is expected from the learner?



Ensure content is accessible across devices

Apart from having an algorithm to work with, make sure learning content is accessible across various devices. That means content should be mobile- and tablet-friendly, and not just designed for desktop experience. This ensures learners get to access training materials in the way that's most convenient to them, which paints a more accurate picture of their experience and, therefore, how exactly it should be adapted.



Use analytics and reporting features to monitor learner progress

And, of course, as your learners engage with their training content, monitor their progress by leveraging the platform's analytics and reporting features. Data on what kind of content users

search for the most or how many times someone got a question wrong before getting it right can clarify your learners' strengths and weaknesses. You can also generate reports based on the data provided, which can help visualize key takeaways about your learners' progress more clearly.

The Easygenerator solution for adaptive learning

While talking about the implementation of adaptive learning solutions we can take advantage of the personalization features of an LMS or LXP. But, what good would these platforms be without any content? Content is the spine of the whole learning ecosystem of tools and the need for an authoring tool remains at the heart of the equation. Many L&D assume that <u>buying or outsourcing content</u> can fill in vast compartments of LXP because they can feed in the algorithms. It is important to note, however, that the content will soon be outdated, and the process will prove expensive over time. The solution lies in an in-house content creation path by offering an easy-to-use authoring tool that employees can use to directly create their own content.

With an Employee-generated Learning (EGL) approach, employees or SMEs are equipped with an easy authoring tool to create and articulate their everyday working knowledge. This is tactical content that adds value to their colleagues while accelerating the content creation process. Companies such as Danone and T-Mobile have seen repeated success with EGL by equipping employees with the means to create content in the direction of adaptive learning.

An LXP is most successful when it contains employee-generated content. Its core purpose is to bring relevant content to relevant people when they need it. There are always going to be niche parts of people's roles which learning needs can only be fulfilled by the help of custom content that only peers can create.

In support of EGL driving adaptive learning, Easygenerator offers intuitive and interactive content creation features that enable non-didactic SMEs to create content in different formats catering to different learning styles. With several question types to create pre-and post-assessments, well-designed co-authoring features to collaborate with peers, flexible publishing and sharing options for easier distribution, creating content for an adaptive learning strategy is easier than ever.

Conclusion

In today's world, data, technology, and content are the key ingredients of personalized consumer experiences. This is a minimum standard expected in workplaces too. All employee support systems in HR, Finance, travel, and more are bound to take a cue from the consumer world, and this applies to L&D as well.

Also, with recent changes in the working environment, online learning is here to stay. That means we'll likely continue to rely on algorithms and learner analytics to manage corporate learning needs remotely. To help ensure your organization is technologically prepared to cater to individual learners, Easygenerator has included detailed learner insights as a key feature. Once you've created an online course using our authoring tool, you'll be able to dive into your learners' needs by monitoring their individual progress and activity.

Ultimately, the reason to incorporate adaptive learning in corporate training is to acknowledge that we all have unique learning needs. So, when done well, an adaptive learning strategy makes room for employees to gain relevant skills at a comfortable pace, which can lead to a more efficient workforce in the long run. Further, L&D can draw greater insights into learner's preference, progress and performance which can be leveraged to push targeted learning. This saves significant learner seat time as employees do not waste time on irrelevant training. Adaptive learning can help maximize training investment by catering to employees with varied learning differences and accelerating training roll out to meet the business needs.