

TECH REQUIREMENTS FOR E-LEARNING



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- E-learning has become increasingly popular among learners and instructors today. Online courses are eliminating geographical barriers and spreading knowledge around the globe.
- A major reason for their popularity is the ability to engage learners. They can simulate classroom-like environments by allowing learners to easily interact with educators.
- E-learning has been able to redefine teaching strategies, as well, which has led to progress in the education sector.

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- All of this has been possible because of the advanced technologies that are being used in e-learning by both the content creators and the learners.
- Let's explore the technical requirements that are used in creating advanced level e-learning courses.

Creating and Enhancing E-Learning Content



- Besides the basic requirements of a computer and an Internet connection, e-learning uses a variety of different technologies. Some of them are specifically designed and developed for e-learning courses, and some are used for providing additional support and features for e-learning.

Creating videos and lessons



- create effective videos for e-learning courses, creators require good voice recording and editing software. They can record the voice using microphones and then enhance the quality with software. For example, software such as Audacity can be used to enhance the voice quality and remove noise from the recording.

Adding interactive elements



- amplify student engagement in online learning, it is important to add interactive elements to the course such as a comment or question feature; images and multimedia; and games, quizzes, and assessment tests.

Communicating with learners



- It is important to add a means by which students and instructors can communicate easily. Instructors can use e-mail or instant messaging software and create forums for their courses.
- They can use digital platforms such as Skype and Google Hangouts to communicate in real time with learners. They also can use social media tools such as Twitter, Facebook, YouTube, and Google+ to provide a personalized learning experience.

Managing E-learning Courses



- Content management systems:
- A content management system (CMS) is like a database that is used by instructors to store their course content, multimedia, graphics, student records, and other important files. With the help of a CMS, instructors can easily manage their content and keep track of all the data related to their course.
- The CMS allows an easy search through all the content saved in it based on keyword search methods. Content creators or course instructors can navigate, add, update, and delete data with the help of the CMS interface. There are a number of open source e-learning CMS available to choose from.

Managing E-learning Courses



- Learning management systems: A learning management system (LMS) is the software that can be used to track and store user performance. It also generates reports for the same. For example, instructors can use an LMS to track how much time a learner spends on the course, and what content the learner has gone through and in how much time. It also can generate progress reports for learners by assessing them.
- Once a learner registers for the course, the LMS provides all the administrative facilities him or her. ELearning Industry has rated Adobe Captivate Prime, Administrate, and Moodle as the best Learning Management Systems.



- The technology used in e-learning is the major reason for the success of the learners and the course. Online course creators can use different software to enhance their courses and engage more and more learners. The main thing to consider is that the technologies used in e-learning should be able to satisfy the requirements of both the instructors and the learners.

The Psychology of E-Learning



Given the importance of E-learning in both education and industry, it is critical to study E-learning not only as a learning system but also as a psychological phenomenon. E-learning concerns how to improve people's learning with information technologies. Thus, there is a need to study people's psychological factors (e.g., learning styles and learning motivation), process (e.g., creative thinking and spatial cognition), and mechanisms (e.g., the dual-coding mechanism and the split-attention effect) that underlie E-learning so that the E-learning practice can move from technology-centered implementation to human-centered effective learning processes.

Hosting Technology And Support



- Even for organizations that develop training materials, or make them available to others, the requirements for hosting and supporting online training may be too technically complex and costly. Operation, security and maintenance of host server; user support with help line and training; technical support with email, discussion groups, collaboration tools, application sharing (white board), as well as other "surrounds"; linkages to group learning, knowledge management within the organization; implement bandwidth strategy are examples of hosting requirements.

Hardware



1. Server Type

The main piece of hardware you need is a server. There are many options such as a cloud server, dedicated server, or shared server – each with its advantages and disadvantages. For example, cloud server maintenance is costlier than a dedicated server, but it offers superior performance and features.

Hardware



2. User Database and Concurrent Users:

You need to estimate how many users will be accessing and how many may access the server at a time. You need to configure the server accordingly. If a low configured server is accessed by many users at a time, there are chances of the system crashing or data getting corrupted. Usually, dedicated servers support 200 concurrent users.

Hardware



3. Bandwidth: When selecting or configuring the server, it is important to ensure a good bandwidth to help users' access eLearning courses seamlessly.

Hardware



4. Other Server Configurations

You need to ensure you have items with good configurations such as core processors for the fast processing of requests, RAM for quick response time, and a hard-disc with enough space to upload eLearning courses and store training information in the database