Review of Learning Management System in Current Scenario

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Abstract

A Learning Management System (LMS) is a software that is used to administer, automate and deliver courses. It is used for training and development of its members or employees by educational institutes, companies and government organizations. As the online education industry is growing rapidly, having a modern LMS becomes imperative to impart education and training on scale repeatedly. Audiences should be comfortable using LMS for it to be effective. This paper covers the uses, features, and architecture of an effective learning management system.

Keywords : Development, learning management system, training

I. INTRODUCTION

The use of computers and mobiles in our lives has become unavoidable. The interaction between teachers and trainers, learners in companies, and the course material is supplemented by the internet. Over the years computers have been integrated in teaching approaches like Computer Based Instruction, Computer Assisted Instruction, Computer Assisted Learning, and Internet Based Learning [1]. The focus of these methods was on using computers to teach in the classroom. With the widespread use of the internet, educators started using it for remote education using various interactive forms of content. The present paper puts forth the desirable features, the architecture, advantages, and use cases of a Learning Management System.

II. DESIRABLE FEATURES OF LMS

(1) The user interface should be easy to use not only for the learners but also for the administrators.

(2) An LMS should support different formats like videos, audios, Powerpoint presentations, PDFs etc.

(3) It should be easy to create and change courses, assign courses, enroll users and generate reports.

(4) An LMS should be able to generate certificates.

(5) It should be easy to create and manage catalogs in an LMS.

(6) An LMS that is meant to be used across countries should support multiple languages.

(7) A good LMS should have the option to create personalized learning path.

(8) The content should be accessible on mobile devices.

(9) An LMS has course calendars that specify the course schedule, test dates etc.

(10) Administrators and students should be able to upload documents, for example, assignments.

(11) It should be easy to maintain and should be available on Cloud.

(12) Modern LMS supports collaboration and engagement. It enables students to chat with each other, thereby promoting brainstorming .

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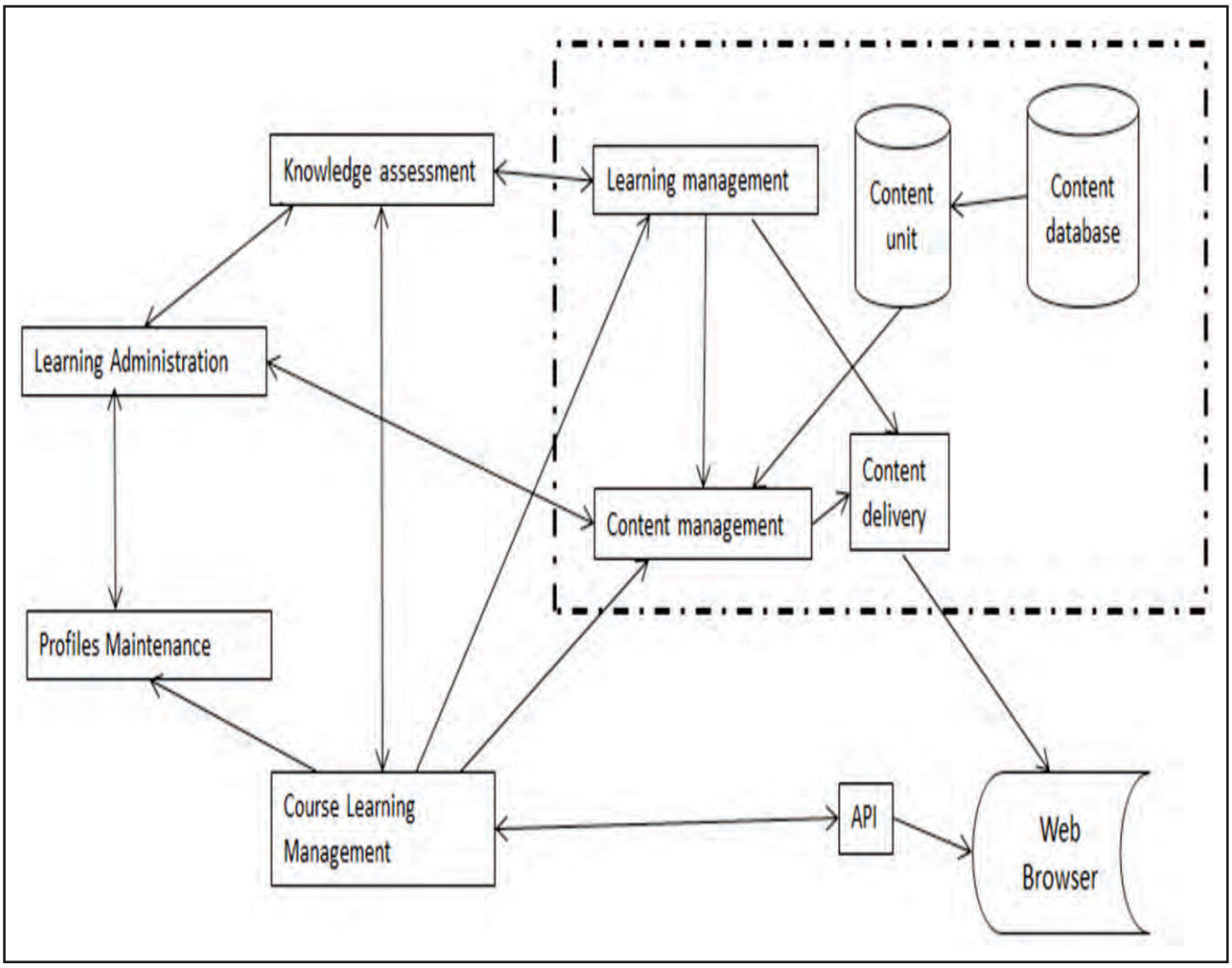

Fig. 1. Learning Management System Architecture

III. LMS TECHNOLOGY

Shareable Content Object Reference Mode (SCORM) is a set of standards that describe how learning content should be structured. LMS systems are based on SCORM. A Sharable Content Object is a unit of training content. The idea is that it should be possible to create content on one platform and share it on other platforms. This way it is possible for an organization to purchase content from multiple third parties and load it on its own LMS [2]. Fig. 1 shows a Learning Management System Architecture.

IV. ADVANTAGES OF LMS

LMS systems offer the following advantages:

An LMS reduces learning and development costs as the system is automated and can be used repeatedly across geographies without significant increase in staff. Companies constantly invest in up-skilling and reskilling employees to stay ahead of competition and to adapt to new technologies [3].

Manual training and development involves course creation, orientation, and analyzing learning success which are time consuming. These tasks can be made less time consuming by automating them. Technologies such as Artificial Intelligence can be used to courses by picking appropriate courses from a rich variety of catalogues [3].

With LMS people can learn on their own schedule and at their own pace. They can also access the courses anywhere. They can also revise the concepts learned when they want to.

V. USE CASES FOR LMS E-LEARNING

(1) Onboarding process is important to make new employees part of a company and make them comfortable with the culture and processes of the company. LMS is being used by companies for onboarding, especially for remote employees to prepare employees [4].

(2) LMS is used for reskilling and up-skilling employees on various concepts and technologies.

(3) LMS can be used for soft skill training for imparting conflict resolution and leadership skills.

(4) LMS can also be used for training the sales force.

(5) LMS can be used for compliance training to mitigate liability and risk.

(6) It can be used for training partners and customers on product use, new features etc.

VI. EXAMPLES OF LMS USE

Crown Technology used Walkgrove to develop a bespoke e-learning program to supplement classroom training on welding metal cans that are used in the packaging industry [5]. Mistakes in welding can be dangerous and expensive. Walkgrove used a mix of information based content and engaging interactions for the e-learning program. It used simple and intuitive navigation.

Catalyst Learning Company (CLC) provides career development programs for healthcare professionals to improve patient care, supervisory skills, increase employee satisfaction and retention [5].CLC used an LMS that had a template UI and supported multiple tenant portals. CLC can customize different instances of the system for individual hospitals while maintaining all the content and reporting from a central catalog. CLC has seen a 20% reduction in staff's time to manage trainings since it started using an integrated system for user registration and e-learning. It is able to track course completion easily with 100% accuracy [6].

VII. CONCLUSION

LMS systems are being widely used in the education and training sector. New technologies like Artificial Intelligence are being used to enhance the capabilities of LMS and offer on-demand courses. The ease of use and reduction in training costs make LMS the preferred choice for education and training.

AUTHOR'S CONTRIBUTION

Raghvendra Narain Tripathi is the sole author of the present paper. He has performed the entirety of the work described in this paper.

CONFLICT OF INTEREST

The author certifies that he has no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in the manuscript.

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