Research Article

INTELLIGENT E-LEARNING SYSTEMS USING WEB 3.0

Sunita Dhotre, Sheetal Patil

Address for Correspondence
1. Asst. Prof. BVDUCOE, Pune.
2. Lecturer BVDUCOE, Pune

sunitab100@rediffmail.com

ABSTRACT
The objective of the paper is to design an architecture which describe E-learning. Web 3.0 uses widget aggregation, intelligent retrieval, user interest modeling and semantic annotation. In this paper we discuss the architecture of E-learning system using Web 3.0. [7]

KEYWORDS web 3.0, E-learning, semantic annotation, intelligent retrieval.

INTRODUCTION
With the rapid development of Internet, more and more people obtain useful information via the Internet. The internet is an open system, a huge number of information is produced and update onto it every day. [1] E-learning systems can be very beneficial to the student if used properly. With the development of information society and acceleration of the pace of life, Learners are looking forward to have a learning schedule and network learning environment, which can meet their own needs. During the era of Web 2.0, Internet brought convenience to instructors and administrators of E-learning platforms. E-learning platforms mainly used interactivity of information. However learners still need a more intelligent efficient and personalized system [7]. Web 3.0 meets this need of learners and Proposes new concepts of information access models. The latest emerging area is Semantic Web. The languages that power the Semantic Web are RDF Resource Description Framework and OWL Web Ontology Language which helps in embedding Semantics in existing Web. [3]

CONCEPTUAL DIFFERENCE BETWEEN WEB 1.0, WEB 2.0 AND WEB 3.0
The initial web that was invented along with the introduction of Internet was Web1.0 [8] where development focused on the back end or infrastructure of the web. Programmers created protocols and code languages.

The next decade was Web 2.0 introduced by Tim O’Rielly where focus is shifted to front end. Still we have not finished with web 2.0 and Web 3.0 is arrived. It is about adding context to personalization.

Web 1.0
- Web 1.0 Static pages instead of dynamic user-generated content.[10]
- The use of framesets.
- Proprietary HTML extensions.
- GIF buttons, typically 88x31 pixels in size promoting web browsers and other products.
- HTML forms sent via email. A user would fill in a form, and upon clicking submit their email client would attempt to send an email containing the form's details. [11]

Web 2.0:
Web 2.0 websites allow users to do more than just retrieve information. They can build on the interactive facilities of "Web 1.0" to provide "Network as platform" computing, allowing users to run software-applications entirely through a browser[11]

Web 3.0
Web 3.0 combines semantic Web with Web 2.0’s tagging culture. It will use internet to make connections with information.
E-LEARNING SYSTEMS
The e-learning systems mainly include learning through satellite television systems by the use of audio or video conference systems, through computer-based network, online learning which carries out active learning activities by utilization of information technology and communication network.[8]

ADVANTAGES
Today, various information lead to a rich learning resources library. The e-learning systems have many advantages such as [8] Units
- The diversity of the forms of knowledge learning and sharing.
- Use of collaborative and socialized learning mode.
- Companies and universities carrying out E-learning activities with the learning management system. Products of E-learning are installed in many universities. E-learning makes the online teaching and management more systematic.[9]

THE CURRENT E-LEARNING SYSTEM PROBLEMS
The E-learning system also faces with some of the following major problems [7]
- Deficiency in learning content: The information may not inspire the users successfully.
- Lack of personalization: The currently available platforms to learners are of the same content, so when learners have different learning demands and different learning roles, they have to enter different learning systems which reduce the learning desire and initiative.
- Narrowness: E-learning systems are applied by small and specific groups.

INTELLIGENT E-LEARNING SYSTEM ARCHITECTURE BASED ON WEB 3.0
E-learning system based on Web 3.0 consist of the Learners, Personalized Learning Portal, Learning content management System, Learning resources in Internet As shown in fig 1

![Figure 1: The architecture of platform based on web 3.0](image)

- **Learners**
  Learners may be an employee participating in skills training, as student taking courses.
- **Personalized Learning Portal**
  Learners can login Personalized E-learning system, rather than the traditional interface which are common to all learners.
- **Learning Resources**
  Learning resources are created by experts in learning or training institutions.
- **Learning content Management System**
  This system will manage the creation, reusing, locating, distribution and evaluation of learning resources. It will help to record knowledge that is unstructured in an appropriate way. It will also help to manage resources in depth.

CONCLUSION
This paper attempts to design E-learning systems which possess intelligent information system. The system here is learner centric. The Content Management system will be responsible for creation, reusing, location, distribution and evaluation. Further a learning management system can be incorporated which may include User
interest Modeling, Knowledge Recommendation system, Online training etc.

REFERENCES

4. Snigdha Gupta, Saral Jain, Mohammad Kazi, Bharat Deshpande, Mangesh Bedekar, Komal Kapoor, Personalization of Web Search results based on User profiling.
10. Web 1.0 How stuff works.
11. WEBalley – forms tutorial