

Design and Implementation of Distance learning using Moodle platform for Visual impaired

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Abstract— Today's adaptation of distance education offers an analogous academic alternative to the traditional classroom experience for students who desire a learning opportunity more consistent with their individual lifestyles. Many of the advancements that have allowed for an increasingly convenient system of delivery have materialized as technology continues to influence the landscape of distance education. Virtual learning Environments (VLEs) are changing the old ways of teaching and learning and provide support to the modalities of distance learning. However, the platforms used for Distance Learning (DL) do little to ensure education for all people without any difficulties. This make a contribution to inclusive DL, this project presents and discusses the results of an applied research study on the development of a tool for the Moodle platform that aimed to facilitate, for those designing content and include accessible content, thus allowing use of a course for the visually impaired people to educate them and make them to improve their skills.

Key Words— Virtual learning environment, Distance learning, Moodle, Visual impaired.

I. INTRODUCTION

The assessment of student learning in a distance education environment has not been without challenge. An institution validates the true identity of the individual actually completing the course work has been questioned by those critical of distance education. Technological advances which include computing and Information and Communication Technology (ICT) contribute to integrating and reducing distances between stores of information and the people who need them, and also helping them to obtain new skills, a key element in the knowledge society.

However, people with disabilities depend on all information contained in ICTs being converted into hearing and touch stimuli, a fact that grows in complexity in that the conversion of static and dynamic images into audio is a complex and as yet embryonic process, but one that technology seeks to include for visually impaired people.

This project addresses the development of a tool implemented on the Moodle 2.0 platform to facilitate the provision of content targeted on being of service to the visually impaired.

II. PROBLEM STATEMENT

The visually impaired people can perform learning by going schools or colleges. They cannot develop their personnel skills and improve their ability. To overcome this problem those people learn we go for Moodle platform.

III. OBJECTIVES OF THE PROPOSED SYSTEM

This research focuses on at how the visually impaired people can perform distance learning and improve their skills, knowledge and personal capabilities by learning.

BLIND LEARNERS

Blind learners have a low level of sight that is they are not able to learn visually, and so rely on their other senses like ears, hands etc. Some people can have past sight and other may not seen can improve their learning through this platform.

PARTIALLY SIGHTED LEARNERS

Partially sighted learners still work primarily through some of the visual medium like they learn through hearing the concepts. Their needs vary and we cannot estimate what they wanted. These are the two types of visually impaired people.

To educate the visually impaired people to improve their skills and ability to make them well skilled as people without visual impaired, we go for a new platform of

learning known as Moodle platform. The brief description about this platform are discussed below.

learning process by online to and we can improve our skills without any difficulties.

LITERATURE SURVEY ON E-LEARNING

During the past few years we have started to integrate eLearning into the standard curriculum of school. We have developed our learning modules the following way. An experienced teacher author devised structured raw data that were intended to be used in a new way. Thereafter, they were converted to text and combined with multimedia data by an ILIAS editor. The content is checked for integrity and a test run is performed by faculty members.

In order to faster knowledge of learning items, we often supplement these modules or use them as stand-alone with quizzes usually multiple choice with one to five possible answers that are also electronically available. The distance learning is not only used to educate the normal people but also for the visually impaired people.

Students that are Blind or Low Vision vary considerably. They use a variety of accommodations, equipments for educations. They use taped textbooks, e-text, and computer screen reading software such as JAWS, extended time for exams. For many students, advancements in modern technology have made learning much more accessible. Students that are Blind or Low Vision can utilize enlarged print or screen reading software on the computer. Students may also use talking calculators or a tape recorder.

IV. PROPOSED METHODOLOGY

Distance learning applications provide valuable opportunities to users with disabilities. To enhance the accessibility of the distance-learning portal to vision impaired users, we utilize analytical studies on human vision to develop a visibility. Using this adaptation the quality levels and layout of the portal is adapted to enhance the visibility, to users with various vision impairments.

ARCHITECTURE-BASED MOODLE PALTFORM

Moodle is the Modular Object Oriented Dynamic Learning environment. It is a free E-Learning platform also known as learning management system. Using this platform we can create online courses, learn new courses that are available. The Moodle platform also known as course management system in which we can perform teaching and

The moodle screen elements contain the

- Navigation bar,
- Side blocks,
- Course content area,
- Turn editing on button.

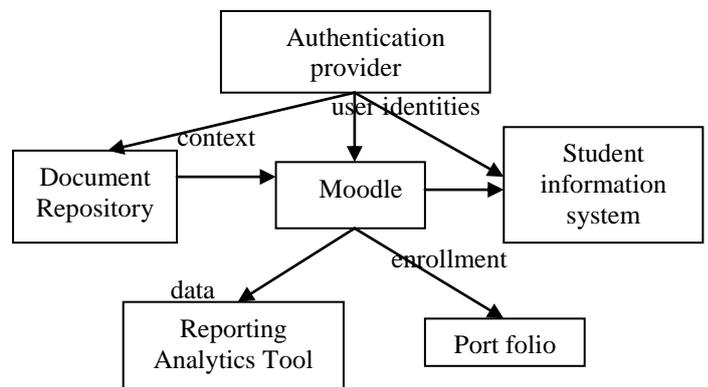


Fig. 1. Architecture Of MOODLE platform

Moodle contains the authentication provider in which the user are well authorized, it also contain student information system, document repository, port folio, reporting analytics tools.

Given this background, as there was no platform that could meet all the demands, especially the requirement of accessibility, the Moodle, AVA Modular Object Oriented Distance Learning, was chosen. This is a free platform and adopted by many universities all over the world. The aim of developing it is to manage learning and collaborative work in virtual environments.

ENHANCING THE DISTANCE LEARNING FOR VISUAL IMPAIRMENT

We derive from models of human visual systems to determine suitable transcoding functions for effective layout of the interface. Accessibility of multimedia information to vision impaired users has been studied from different angles and various solution have been proposed. One common solution is the use of assistive devices to enhance visibility of the information. Tools such as screen readers, audio

HTML interfaces and auditory navigation alleviate some problems faced by users with impaired vision.

INCREASING THE LEARNING FOR VISUAL IMPAIRMENT

The new modalities of distance education have changed the traditional way of teaching and acquired their own identity and are today deemed as e-learning and m-learning. They provide, according in addition to synchronous and asynchronous access to the system, the use of different media and are making distance learning more useful. The role and share of the Internet in distance education has grown significantly, a fact that requires educational institutions constantly to adopt appropriate technologies and it is in this area that the issue of accessibility lies. This subject has been regulated by the World Wide Web Consortium (W3C), which lays down guidelines for access to the network. The comparative study showed that the platforms developed for virtual distance learning environments have gaps in their construction and/or presentation.

There is disparity between them with regard to their supply of tools for collaborative learning, as well as in relation to their interactivity. Some platforms present more resources in one or other modality. Although they may emphasize the possibility of using multimedia systems, their sites do not give clear information on the resources available. The one that is least included is the item of accessibility.

We chose to store the characteristics of the user's disabilities in the database so that, at the moment when the construction of the course page is presented to the user, the environment in the server is able to attach details of the disabilities so that, as a result, a decision can be made on how to present multimedia content. Inserting Images , text, video, table into another format. We perform speech synthesis so that visually impaired people can understand and improve their skills in learning and their personal capabilities.

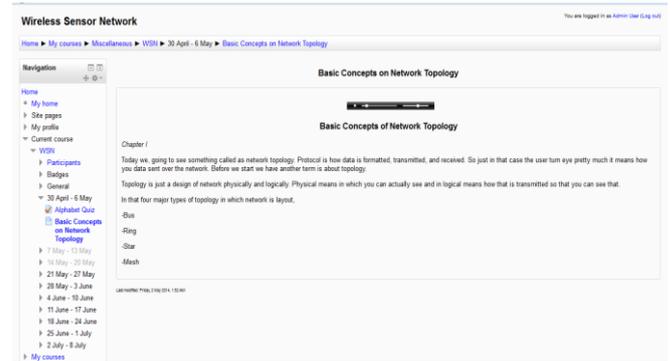


Fig. 2. Adding a course for visual impairment

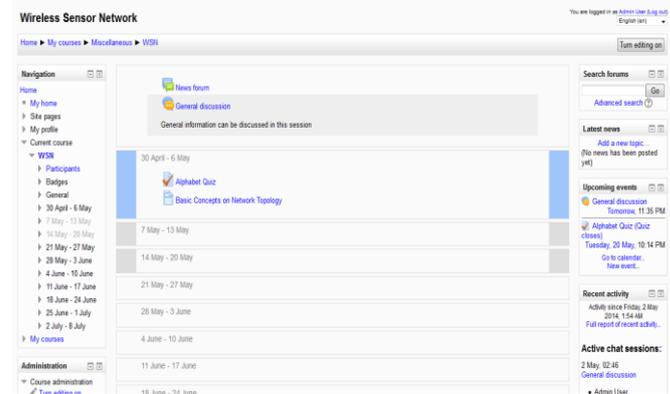


Fig. 3. Adding a new chat room in moodle.

V. CONCLUSION AND FUTURE WORK

In this project I have made how the visually impaired people can perform distance learning. And this is done by using technique like converting the text that is displayed into speech format so that the visually impaired people can also perform learning and improve their skills. Future work also addresses the extension of the distance learning portal for cross-disability access specifically, to users with cognitive and motor impairments.

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