Distance Learning Using ExperInn E-Learning System Through Web

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ABSTRACT

This paper describes how ExperInn e-learning system can be applied to distance learning. The author describes how to use ExperInn e-learning system without any client side/learner side software. The learner does not need to download packages from the ExperInn e-learning service provider’s website. The goal of the proposed distance learning system is to increase Learners Level of Perception (LLP) by providing them with realistic audio-visual content. The proposed distance learning using ExperInn e-learning system consists of uploading scanned images of the textbook in ExperInn e-learning service provider’s website, database creation by experts, putting the images and augmented reality content on the database, and indicating when a particular text book is ready. For interactive learning, the proposed ExperInn e-learning system exploits the color-band markers, which are stuck to the tip of a finger. Here the ExperInn e-learning software will be installed on the cloud so that the learning need not download and install ExperInn e-learning software in his personal computer.

Keywords: Augmented Reality, Distance Learning, ExperInn E-Learning System, Image Recognition, Interactive Learning

1. INTRODUCTION

ExperInn (Experience Innovations) e-Learning system (Shetty, 2012) makes use of 2 modern technologies. They are augmented reality and image/object recognition and web as the communication path between ExperInn e-learning service provider and learner. Here in distance learning using ExperInn e-learning system using web uses the 3rd component that is Internet/World Wide Web. Here web is the major part since learner can only learn if he is having internet facility or if he is having facility to access World Wide Web.

1.1. Augmented Reality

Augmented reality refers to a system in which the physical surroundings of a person are mixed with real-time computer generated information creating an enhanced perception of surrounding environment. Being partly virtual and real, augmented reality applications have quite extreme requirements to be practical to use. It also has very much potential in numerous different application areas. These issues make augmented reality both an interesting and challenging subject from scientific and business perspectives.

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1.2. Image/Object Recognition

Image recognition is designed for identification of current image in textbook page or objects. When the images in the textbook page or objects are identified, the related audio-visual contents are automatically played on the PC.

2. DISTANCE LEARNING USING ExperInn E-LEARNING SYSTEM THROUGH WEB

2.1. Requirements at the Learner Side

See Figure 1.

2.2. Phases Involved in Distance Learning Using ExperInn E-Learning System through Web

In this distance learning system learner has to scan the textbook pages and has to upload these scanned copies to the web site of ExperInn e-learning service provider where an option to upload these scanned copies are provided in the ExperInn e-learning service provider’s web site itself (Figure 2).

In next phase effective augmented reality audio visual contents are created by the experts according to the requirement of the learner. These audio visual contents are updated in the database of the ExperInn e-learning service.
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