



Web Based E-Learning Solution for Quality Education

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Abstract - Nowadays computers education is necessary in every sector whether it is public or private. General applications like Word processor, Spread sheet, Presentations and email usage is demanded during hiring someone. Under development countries like Pakistan where literacy rate is already low, facing these challenges to produce a quality computer professional. Students have to pay huge amount to get a quality computer training away from their doorstep. Private sector is trying their best to fill this gap for professional education but they offered less quality that leads their efforts towards failure. Students have keen interest to get computers professional education that can help in their future life but they came back with frustration due to low quality of courses offered at high cost. In this situation the frustration can be reduced through Elearning Program. In this paper the author try to offer a web based E-learning solution according to current market requirements. This E-Learning solution may give some hope to those who are tired from current situations.

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Web Based E-Learning Solution for Quality Education

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Abstract - Nowadays computers education is necessary in every sector whether it is public or private. General applications like Word processor, Spread sheet, Presentations and email usage is demanded during hiring someone. Under development countries like Pakistan where literacy rate is already low, facing these challenges to produce a quality computer professional. Students have to pay huge amount to get a quality computer training away from their doorstep. Private sector is trying their best to fill this gap for professional education but they offered less quality that leads their efforts towards failure. Students have keen interest to get computers professional education that can help in their future life but they came back with frustration due to low quality of courses offered at high cost. In this situation the frustration can be reduced through Elearning Program. In this paper the author try to offer a web based E-learning solution according to current market requirements. This E-Learning solution may give some hope to those who are tired from current situations.

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I. INTRODUCTION

Technology exploiting is major concern in every field of life. Major goal of information technology is to provide such way which can help in these circumstances [1]. Organizations are now identifying the importance of information technology. ELearning is an advance way for getting knowledge through internet. Organizations are now utilizing e-learning methods for produce quality education which leads towards process improvement [3]. Elearning is a better option to support learning of individual and hence organizations goal achievement. Using elearning, end user can get vast knowledge at low cost with no traveling issues. E-learning is also providing ease of access to experts. User can gain knowledge with no timing restriction. There are no limitations of location; user can access it any time anywhere. Cisco and Lynda are offering elearning services now a day [9]. Recent research indicates that e-learning is fastest growing industries

and earning billions. It is also opening ways for professional trainers. According to recent statistics, professional trainers are among 20 fastest mounting professionals [5]. While comparing with traditional education system, E-learning is offering number of courses as per desired by the students. Traditional learning is offering static material which is legacy according to current needs. While e-learning is offered variety of courses according to interest of end user and requirements of market [10]. Normally e-learning trainings are developed by experts and professional so end user can get benefit according to recent requirements. World Wide Web (WWW) services are providing and improving rapidly services like e-learning, e-survey, e-commerce and ebanking [3].

II. DISTANCE LEARNING AND E-LEARNING

Layers shows at what level distance and elearning are located [6].

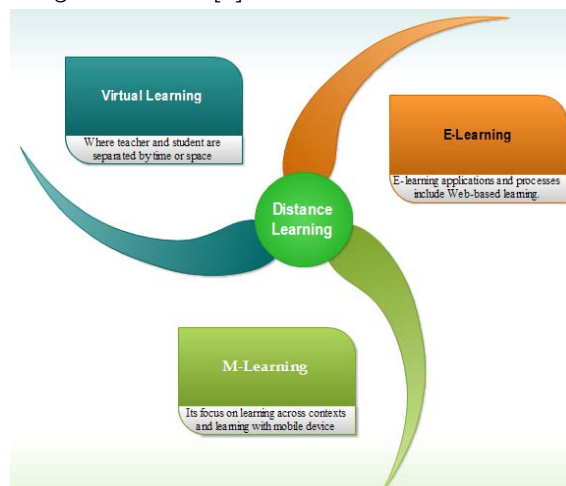


Figure 1: Distance Learning Modules

Distance learning is not new by its naming terminology. Term distance learning is common everywhere, e-learning is derived from it. Distance learning is always comfortable way of learning for those who cannot afford traditional education due to distance, time and cost [8]. Many universities are offering distance learning courses by using workshops and virtual classes. Workshops and virtual class rooms are also bounded for time and location. People that are tired from traditional learning are also tired from these concepts like workshops and virtual classrooms [11]. E-

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learning is free of all these where end user is not bounded for location and time. It is accessible from anywhere at any time with no restrictions [2]. It is also flexible and best choice for those who want to learn it separately.

III. E-LEARNING DEVICES

E-learning is not rocket science for which one requires costly devices. The major devices using by e-learning system are Desktop computers, Notebook computers and Tablet PC [6]. These devices are also available at low cost. Therefore end user will not face any kind of problems according to cost point of view [12].

a) E-Learning Components

Before starting e-learning solution one should know its components [7]. These are

i. Contents

Contents are most important for course whether it is traditional or internet based. Contents should be manageable, deliverable and according to standards. In other words contents are structure of courses which describes its entire context.

ii. Page Design

Page or learning environments has highly impact on student/ learner. It is like presentation of teacher in class room. Therefore e-learning modules page should be design according to end users expectations.

iii. Content Commitment

Content should be balanced and easy to learn. E-learning is way of self learning so content should be in such manner so students will not face any problem. E-learning developers and trainers should also focus to this point.

iv. Usability

Most of e-learning modules leads towards failure because of it are not verified, reviewed, not available when required and not up to date after some time according to current market demands.

v. Spectators

End users or spectators are the main components of e-learning as well as for traditional learning. E-learning module should be able to satisfy its spectator. Success and failure of elearning module is highly dependent on spectators.

IV. EMPIRICAL WORK

The purpose of this paper is to provide an elearning solution according to current market requirements and which provide ease of access to end user. A web based elearning solution will offer to those who are interested to get quality education at his/her

door step. Users have to pay affordable charges for course that he/she applied or registered. Different session will be offered for different number of courses at different time. User should have only internet facility to attend his/her training. He/ she can watch trainings anywhere. At the end a solution will be implemented which shows how this system will work. Implemented system will show how it is easy and effective.

a) E-Learning Web Application

There are many e-learning web applications are available now a days. Particularly in Pakistan these application are not fulfilling requirements of end user. They have poor quality in nature. Some is offering one feature and other is offering other. They are not well managed. In learning process content, intercommunication of teacher and student and evaluation are necessary components. Some existing e-learning modules do not even know them. Our elearning web application is following all necessary components of learning process. Following are the steps according to which this e-learning module will work.

i. How to Access

User can access our web based learning module very easily. User only has his/her personal computer with 1 MB internet connection speed. User has to visit our URL to access e-learning module.

ii. How to Join

User just has to visit our website and sign up by giving username and password to access e-learning module (Figure 2).

Figure 2: User Sign-up Form

iii. Course Selection

After creating free account user have to select his/ her course (Figure 3) which he / she want to learn. Course contents will be available against each course. Course benefits and certificate detail will also be available. Students just have to enrol them self by selection their course and timings he/ she feels sufficient for them. Each course has prerequisites which need to be fulfill by the student.



Web Based E-Learning System

Home About Course List Contact

Home About Course List Contact

Payment Method

- ☐ Credit Card
- ☐ Cross Cheque
- ☐ T/T, Cheque
- ☐ Easy Paisa

Cheque in favor of: **IT Researcher**

Submit

Figure 6: Payment Method

v. *Getting Started*

After course selection and fee payment user will be able to watch his/ her course videos (Figure 7). He will be able to comment on particular video or can give feedback to us. According to feedback rating of course will be performed. Students can watch their already watched videos at any time instead of daily session timings.

iv. *Account Info/Payment Methods*

Users have to provide his/her account information for payment (Figure 5). He/She have to pay nominal payment against each course. There are many payment methods of this module like credit card, cheque, through mobile recharge or new techniques like easy paisa or UBL Omni (Figure 6). Users just have to pay for course what he/ she have to learn.



Figure 7: Watch Selected course Video

vi. *Contact to Trainer*

This e-learning module is providing contact with trainers (Figure 8). Each session will assign a trainer. This will help learners to understand course well. User can make contact with trainer through email or phone call. Trainer of particular training will be available at given time.



vii. *Evaluation Criteria*

Different evaluation criteria's will be offered. Different quizzes will be offered for evaluation purpose. If students fail in some quiz then negative points will be marked.

viii. *Award of Certificate*

Certificate will be awarded to students after completion of particular course. Certificate will be posted to his/ her mentioned postal address.

ix. *Job Opportunity*

After evaluation jobs will be offered to those who performed well in his/ her training session and quizzes.

V. CONCLUSION /FUTURE WORK

E-learning is playing vital role in training of professional education. It helps those who are not able to join regular classes or don't have time for traditional learning. Several elearning web sites are available especially in Pakistan but they are not fulfilling requirements of end users. They are offering less quality of training courses hence producing nothing. We are offering a elearning web based solution that will fulfil requirements of end user. It will be quality solution. This e-learning module will offer courses in some manageable form. In future we will convert this e-learning module to Mlearning. This will free of desktop PC's or Laptops. User will access our M-learning solution on his/ her mobile device easily.

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