PERFORMANCE EVALUATION OF E-LEARNING SITES

Dr.Mayank Aggarwal[1], Rinkey[2], Dr.Piyush Gupta[3], Dr.Archana Bhatnagar[4]
[1]Associate Professor, Deptt CSE, Gurukul Kangri University, Haridwar, Uttarakhand, India
[2]Research Scholar, [3,4]Assistant Professor BIT, Jaipur,

Abstract

In the modern era a lot of technologies have been introduced for learning. By the mode of e-media learners can gain a lot of knowledge in their respective subjects and can make their concepts more clear. But with so many e-learning sites user is always confused which site to choose. To select the correct site as per the requirement is a hurricane task. We have analysed different e-learning sites and based on the most needed parameters graded them so that users can judge the site of their need as per the results of this paper. We considers eight most commonly used e-learning sites and compare them on our ten parameters and finally give a graphical results of each site so the user can choose the required learning platform.

Index Terms*:* E-Learning, NPTEL, Contents, Courses, Open Course.

I. INTRODUCTION

In the modern era, where technology is quickly developing, education has also taken the support of ICT and now offers expedient ways to help boost the knowledge, education and literacy prominence of people. E-learning podium provides anywhere, anytime easy access for upgradation of knowledge and skills. It provides a platform wherein the personage gets a modified package related to key thematic areas, through a self-guided process. E-Learning sites gives a platform to the users to learn and enhance their knowledge without going for regular classes. In this paper the comparison of top e-learning sites is done on the basics of below parameters:

A. *Complete Contents*
B. *Contents on One Page*
C. *Interface*
D. *Collaborations*
E. *Courses*
F. *Query handling*
G. *Fees*
H. *Duration of Courses*
I. *Certifications*
J. *Response time*

By analysing these parameters different sites were compared and most suitable site was judged by grading them from 1 to 10.

A.E-learning

The term e-learning is not a new term it has been used since 2000 but still there are many definitions to describe the term e-learning [16]. E-learning is defined as "distance education using the Internet and/or other information technologies." The Consultative Council used this definition. Others say, "With the use of IT and communication networks E-learning provides a mechanism for self learning. The users and provider interact by means of communication network and contents are modified as per the requirement of the users.

B. Objective:

With so many e-learning sites the objective of the paper is to provide a detailed comparison of these sites so that user can choose the site as per his requirement. Also grading of sites is done to make the selection easier for the user.

C .Recent Studies:

In 1998 E-learning was provided by satellites using video conferencing to limited persons only in 2001 with the advent of internet it became common and easily accessible to all. In various papers related to e-learning the following concepts were introduced:

[1] Focused on the current situation of e-learning and its future in India. The author had also compared the growth rate of e-learning in India with respect to other developed countries.

[2] Focused on the effectiveness of using e-learning in teaching in tertiary institutions. The higher education institutions could utilize modern information and communication Technologies for teaching and learning.

[3] In this the learners and the e-learning systems were classified. A relationship was developed between learners, providers and the contents.

[4] Had identified the key factors which enable the providers to give contents based on various syllabuses.

[5] Gives the effectiveness of various e-learning platforms. It discusses how various e-learning sites are effective for learning.

[6] Focussed on the technologies used by e-learning platforms.

[7] Discussed the different issues and challenges faced by e-learning platform.

II.METHODOLOGY

The following steps have been followed to analyse and compare different sites:

(i) Select the target e-learning sites

(ii) Rating the selected on the basis of following parameters:

   A. *Complete Contents:* In this the contents of the sites were analysed and also the form in which it is available is taken into consideration.

   B. *Contents on One page*: This factor provided the information regarding data related to subjects and other information of the site on one page of the site.

   C. *User Interface:* This factor included information regarding how site is friendly to users and how easily user could access the particular site.

   D. *Collaborations:* It included how the particular site was correlated with other resource centres for subject's related data and other requirements.

   E. *Courses:* This included how many courses are offered by the particular site.

   F. *Query Handling:* This factor suggested about the site that by what resources and how particular site handle the user queries.

   G. *Fees:* This factor helped users to analyse on what cost or free of cost they are providing online courses to users.

   H. *Duration of Courses:* This analysed about the courses which they are providing are of short term or long term durations and by which mode they were proving their learning.

   I. *Certifications:* It guided about the courses which they are providing are certified or valid and beneficial for users or not.

   J. *Response time:* It showed how responsive site were by this it means that how fast solutions for Problems of user were provided by site.

The above parameters were chosen because they include all queries generally related to site which showed about whole structure of the site.

(iii)Based on these parameters all the targeted sites were browsed and studied deeply and then grading was done.

(iv)Depending on the grading final results were concluded and represented as graphs.

III.TARGETED E-LEARNING SITES

   A. *National Programme on Technology Enhanced Learning (NPTEL)*

NPTEL is an online learning platform which is run by IITs. It provides online learning in Engineering, Science and humanities streams. The main objective is to provide quality education to all the students by providing the lectures of professionals from IITs. [8]
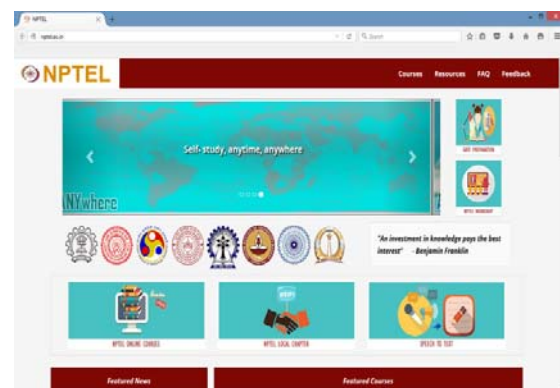

Fig1.Snap shot of NPTEL site

Above is the snapshot of the NPTEL site. It shows how this site looks like.

The table was generated based on the discussed ten parameters and each site was given grades from 1 to 10 on these parameters. Table 1, shows the grading for NPTEL similarly grading were done for all the targeted sites.

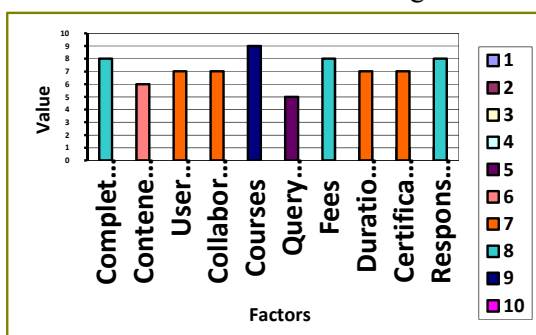| SN.	Factors	1	2	3	4	5	6	7	8	9	10
1	Complete Contents								*		
2	Contents on One page						*				
3	User Interface							*			
4	Collaborations							*			
5	Courses									*	
6	Query Handling					*					
7	Fees								*		
8	Duration of Courses							*			
9	Certifications							*			
10	Response time								*		

Table 1. NPTEL Grading

Fig2.   NPTEL Grading Graph

Fig. 2 shows the grading of NPTEL based on the taken ten parameters in the form of graph. The graph was plotted taken into considerations the grades which were given to NPTEL for each parameter. Similarly graphs were plotted for each targeted site.

B.MIT Open Course Ware is a e-learning platform governed by Massachusetts Institute of Technology (MIT). It covers a wide range of domains including cross sectoral areas.[9] [11]

C.The Open University provides high-quality distance learning. In this courses are paid as well as free available. Data is available in all modes video, audio, text and text books are also available. Computer science subjects are limited. In this live chat facility is available by which user can talk to the representative of the open learning University and after completion of the course the certificate is delivered to their home.[10]

D.Coursera It is and educational website which is collaborated by various universities providing course on various subjects along with certifications. The learning is provided free of course and if certificate is required payment shall be done.[16]

E.Open Culture It is an online learning platform for various subjects including computer science engineering also but with contents only no video lectures are available. [12]

F.Umass Boston Open Course Ware The UMass Boston Open Course Ware provides various e-learning courses covering various subjects. It has collaboration with MERLOT. In it mostly textual data is available.[14]

G.Cosmo Learning It is a non-profit educational website committed to improve the quality of homeschooling, teaching and student excellence .Not enough books are available but in collaboration with various universities it provides courses and online contents. [15]

 H.EdX : It offers interactive online classes and MOOCs from the world's best universities, colleges and organizations. Online courses from MITx, HarvardX, BerkeleyX, UTx and many other universities can be taken here. EdX is a non-profit online initiative created by founding partners Harvard and MIT. [13]

IV.RESULTS AND CONCLUSION

After studying the targeted sites and grading them all finally a combined graph was plotted for all the sites to give a clear picture of them. The combined graph represented in Figure 3 shows that depending on our factors NPTEL has the highest grades but each user can has his own requirements so as in graph 4, a consolidated results is shown for all the targeted sites and their grades for each parameter in consideration. For example it clearly shows that query handling if Open Learning is more than of NPTEL.
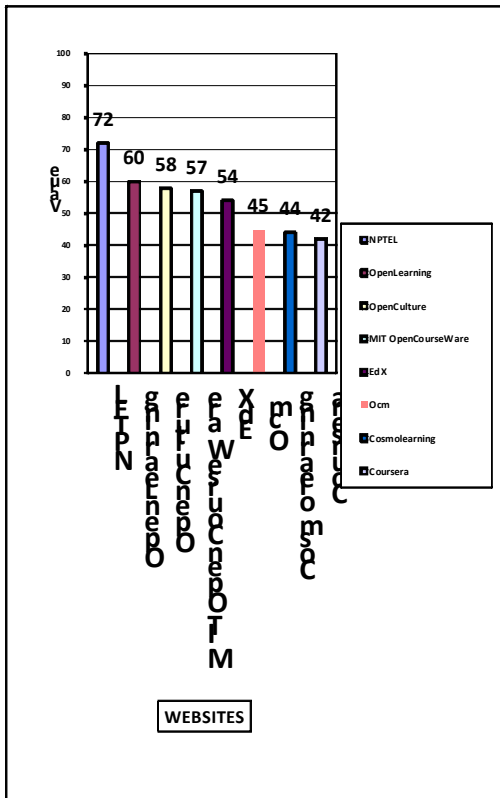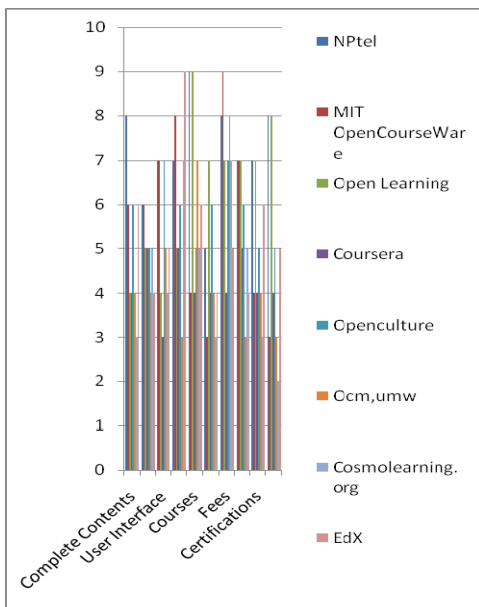
Fig. 3. Results

Fig4. Combined Comparitve Results

V.CONCLUSION

With the advancements in the technology the learners are much attracted towards the e-learning media. But by searching on the search engines they were not able to find a best source of learning in less time. So much of their time was wasted in finding the required site. This paper provides a platform to them to choose their site as detailed comparison and analyses of all the usually accessed sites has been undertaken.

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