



RESEARCH ARTICLE

Developing Web Based Model (Disblogwik) in Informal eLearning

Triveni Dixit¹, Dinesh Gill²

¹M. Tech Student, Department of Computer Science & Engineering, SGT INSTITUTE OF ENGINEERING & TECHNOLOGY GURGAON (HARYANA), Maharshi Dayanand University, India

¹ dixit.triveni@gmail.com

Abstract— The discussion forum is one of most popular technologies used in the delivery of online learning. Unlike text, audio and video conversation, the discussion forum is an unsynchronized technology, which does not require all participants to be online simultaneously and one of the strengths that the discussion forum provides to the online learning community is the ability to allow learners from a variety of time zones to interact at time that suits the individual learner.

‘Web 2.0’ technologies, which place learners at the centre of online activities and facilitate supposedly new forms of creation, collaboration, and consumption.. Discussion forum is one of the most capable web2.0 tool used for communication on internet by posting a question and waiting for comment or answer. A lot of information in form of discussion forum generated by user gets stored at different places.

The purpose of the paper is to critically review the methods of posting a question and a comment on discussion forum. Various related works that have been done and their gaps in the use of online discussion forums for e-Learning are also discusses.

Key Terms: - Crawling; Discussion forum; Forum portal; Informal learning and Web 2.0 applications; blogging

I. INTRODUCTION

eLearning is the learning done through electronic means like CBT (*Computer-Based Training*), IBT (*Internet-Based Training*), WBT (*Web-Based Training*), and Virtual Classrooms. eLearning is a term describing any type of learning that depends on or is enhanced by online communication using the latest information and communication technologies.

It gives opportunity to learner for anywhere, anytime learning without restricting them to the physical Boundaries of colleges/university/city/country. eLearning is a powerful tool for teaching /learning process. eLearning is categorized into two major categories

- **Formal learning**
- **Informal learning**

Formal learning is teacher centric in which the teacher sets the goals and objectives of the learning. It is a push activity in which teacher/instructor pushes whatever information he wants to give to the learner/student. Formal learning is a planned learning that derives from activities within a structured learning setting.

Informal learning is a learner centric and learner/student makes their own decision what to learn. Informal learning can be acquired through day to day activity where everyone is free to choose what information and skills are required for their work. Learners make their own choices both about what they will learn and what techniques and technologies they will use to support their efforts. In the present times, it is estimate that there is 20% Knowledge is through formal learning and 80% is through informal learning.

To the increasing growth of internet all over the world, Web 2.0 has become more popular. Web2.0 is a new way for the web content that provides services to share the aggregated data with other sites. It provides the facilities for content changes or frequent updates for informal learning.

Discussion Forum is an online forum which is used for sharing the information, ideas, views and suggestion with other users as per the user interest. Discussion forums are gaining popularity as a mechanism for increasing student interaction in the on-line learning environment. All the communication tools provided to support e-learning, discussion forums do more to promote collaboration and sharing of information. When managed effectively, discussion forums can encourage learners to share information, build on the ideas of others, and construct understanding about the changing world of technology. Discussion forum motivate learners in two ways.

First, active discussion forum have every minute new content, and thus, makes it more attractive for a user to come back later. Secondly, whenever a learner expressed his own opinion then it tends to defend this opinion against others. Hence, active learners will contribute all in all regularly [4]. The main purpose of this paper is critical review of all the work related to discussion forum and problems on the methods of posting or comment on it.

II. DISCUSSION FORUM FEATURES

There are various features of discussion forum available through which we can interact and communicate with others, share their ideas and suggestions. Features are as follow:

- Open to Collaboration.
- Are owned by group with equal responsibility.
- Aim is to provide support.
- Content is considered to be static type: once posted the posting doesn't change (answers are provided by others).
- Content is organized and presented in different-different ways.

Answers are required.

III. WEB 2.0

Web2.0 services present a new way of learning for Informal learning development where a person learns from day to day activities. There are various services present like discussion forums, blog, wiki, YouTube and Face book through which learning process can be developed in terms of collaboration, communication, interconnection and cooperation.

Web 2.0 is a second generation web which is also called people centric web, read/write web, participative web and wisdom web. Within the last three to four year web2.0 has become successful based on the social application such as Face book, YouTube and MySpace etc. Web 2.0 is more interactive and dynamic than previous version web1.0 and allows users to both access and contribute to it. There are various web2.0 tools and services like discussion forums, blog, wiki, RSS and Mash up through which users can share their ideas and suggestions. There are various development approaches, used to create web2.0 application like Flex, Google web toolkit, Java script and Ajax (2007).

IV. PROPOSED WORK

OVERVIEW

To overcome the limitations posed by various research gaps, a new model named Aggregation and Dissemination model is proposed. The proposed model helps in fetching and combining the relevant information from various online forums and present this aggregated information to the users according to their requirement.

AGGREGATION AND DISSEMINATION MODEL

Plenty of user generated content is spread all over the Internet. Discussion forums are one of the major sources of this user generated information. This information is stored at different online forums and is not easily searchable by the users.

The proposed Aggregation and Dissemination model consists of aggregation model that helps in searching, fetching and combining information from various online discussion forums (DF1, DF2, DF3... ..DFN) and dissemination model that presents the aggregated information to the users according to their requirement. The proposed model will help users finding the needed information of interest to the user on the Internet with less effort and in less time. The model proposes an efficient and effective searching technique to find the relevant content from different online forums and ranking the most relevant information at the top of the resultant page. The model performs following functions:

- Searches and fetches the requested information from disparate discussion forums.
- Aggregates the fetched information.
- Ranks the aggregated content.
- Presents it to the user in easily comprehensible form.

The facilities provided by the model are as listed below:

- It allows the user to start a new discussion thread or contribute to the existing discussions on the Disblogwik (local discussion forum), thereby generating a lot of usable and searchable content on the Disblogwik.
- It allows the user to carry out an internal search on the Disblogwik for the required content.
- It allows the user to carry out external search for the required content i.e. searching content from various disparate online discussion forums present on the Internet.

V. WORKING OF THE MODEL

The Aggregation and Dissemination model is shown in Fig. The working of the model is explained in the following steps.

When a user is looking for some information, the procedure for getting the required information on the basis of the search topic as listed below.

Step 1: User types the search topic in the search bar and the suggested queries are displayed.

Step 2: User selects a suggested query by clicking on the most appropriate suggested query. In case there has been a similar query earlier. Otherwise searching is performed on the typed topic.

Step 3: Search is performed in two ways; Internal Search and External Search.

Step 4: Internal search is performed by matching user generated query with query log of the Disblogwik.

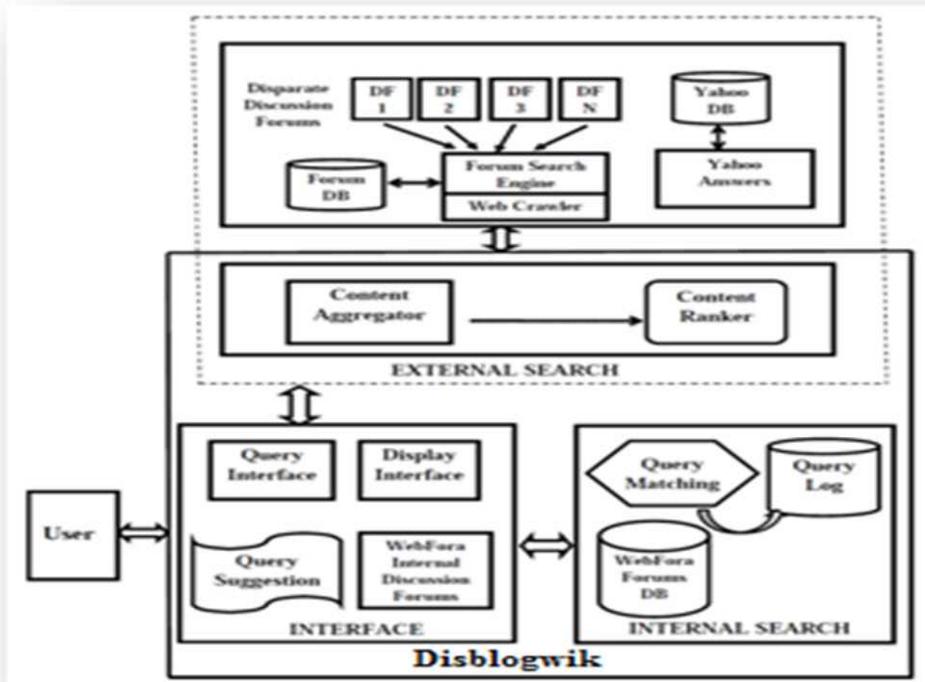
Step 5: External search is performed from various online forums using web crawler and the results are aggregated.

Step 7: Aggregated content will be displayed to the user in the form of a table.

Step 8: Ranking is applied to the aggregated content.

Step 9: After ranking, most relevant result will be shown at the top and rest in the descending order of relevance.

VI. AGGREGATION AND DISSEMINATION MODEL



VII. VARIOUS MODULES OF THE MODEL

The proposed Aggregation and Dissemination model consists of various modules as listed below:

1. Interface Module
2. Internal Search Module
3. External Search Module

VIII. CONCLUSION

The development of Web 2.0 technologies has encouraged people to share individual ideas and opinions through online forums. Web users can participate in a discussion to express themselves and interact with other users on specific topics of interests. This leads to lots and lots of user generated information that can be used by others as and when they use it.

The implementation of the proposed Aggregation and Dissemination Model will help users to fetch user generated information of interest from different online forums, aggregate it and present this information in front of the user in a simple and organized manner.

IX. FUTURE ENHANCEMENT

Discussion forum have lot of information in the Form of users' generated content which is stored at Different locations. This distributed information can be aggregated at a single place and can be used by Users for learning. Additionally, collaboration with other web 2.0 tools like blogs, Wiki and RSS etc. can be done to enhance the power of eLearning process. Also, people spend lot of time on social networks, so it is advisable to combine discussion forum with social networking sites for learning experiences through which users can easily access the information of the forums. Some more functionality, like ranking the content on the local discussion forum, use of efficient algorithms and search methodologies, may be added to the Disblogwik for further enhancement of user experience.

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