

Effective and Efficient Learning With Social Media

Socialized Education Network

Author: V. Ranjan¹; Shilpa B²; Ranganatha K³; Eden Sequeira⁴; Smita Shanbhag⁵; Joslin Dias⁶

Affiliation: Research scholar¹; Guide²; Co- Guide³; Research scholar⁴; Research scholar⁵; Research scholar⁶

ABSTRACT

Learning is an evergreen field of importance underlying human's intelligence, recent years have seen development of learning by internet media popularly termed as "E-Learning", and the technological developments were evident in the recent times to accomplish the task with the help of social media, but the attempts have failed to yield impressive results mainly due to the ineffective implementation and poor performance factors. This paper deals with a solution which delivers distributed learning system through social media to bind together the institution stakeholders in a effective learning system, efficiency and the performance of the system is also taken into consideration to deliver responsive interface to the user.

1. INTRODUCTION

With the introduction of Web 2.0 tools, followed a revolutionary change in the world of internet, websites went onto integrate these tools and within less duration of time, Web 2.0 became one of the major reasons for birth of modern day social networking services(SNS) such as Facebook, orkut, google plus etc. On the other hand E-Learning system saw less significant changes from years, major E-Learning systems are based on traditional learning management system(LMS), which gives lesser options for users to involve in direct interaction/discussion with each other, one of such system which is still existing in India is IIT's nptel portal.

As technologies were being developed, strategies were introduced for betterment of existing LMS, one of them was integrating web 2.0 tools with E-Learning System, and thus giving birth for Social networking based Learning system. This change in the system was welcome and became one of the most sought after system for achieving E-Learning goals. But the pace of growth of such socialized learning system has still been a concern in the recent past the proposed system has failed to put up impressive results in terms of

reaching out to larger population amongst internet users, compared to SNS's.

This paper stresses on the distributed system of E-learning which serves the localized purposes and with web 2.0 technologies as the basis, solution is discussed to optimize the performance of system along with serving SNS functionalities. The goal of this solution is to reach to potential number of users and provide them with effective system for E-Learning as an alternate to conventional class based learning.

2. RELATED WORK

Efforts and research were made to provide a optimal solution to improvise E-learning systems in the past.

Ming-Chi [1] stated that E-learning users face several new constraints, such as the impersonal nature of online experience. Furthermore Ebner [2] stated that in current e learning, lecturers deliver the content, students learn it, and there was no memorable change, less collaboration, less learner participation. With moodle being one of the highly used LMS in indian universities, as discussed about LMS, this system acts as just a content finder for users, do not include provision for active interaction amongst users. Awodele [3] stated that level of participation, interaction and collaboration within the students and lecturers has also increased with the use of social tools in e-learning.

Zaidatun tasir [4] in his research, found out that students highly accept e-learning through social networking tools in universities, moreover students prefer more interactive learning environment that allows them to have greater chances to manage and control their online environment.

3. PROPOSED ARCHITECTURE

The overview architecture of the proposed system is as shown in figure 1 and this consists of following modules:

3.1 Verification of credentials:

This module helps in authentication of user to access his profile, comprising of username and password which is chosen by user himself during registration at his first visit to the site. Server checks the registered database and inspects authenticity of the user ,if successful it navigates to user profile else display appropriate message and ask user to input arguments until he inputs the correct credentials.

3.2 Home page:

Acts as a interface or "home page" for the user from which he can navigate to either e-learning module or to complete social networking module. Home page comprises of both e-learning and social network modules in an appropriate ratio so as to deliver most efficient experience of two modules within one interface that is home page.

"Google customized search engine" is a static online tool which is very useful for students users mainly, this tool is part of the whole website and appears no matter which page of the site we are browsing, this tool takes user query as input and responds back with set of results obtained from "google", this helps in saving time and a handy tool for user while reading any article on the page.

3.3 E-Learning:

This module contributes to providing resources to users to share or learn with other fellow users, basically this module helps user to experience "e-learning" in the website.

4. IMPLEMENTATION STRATEGIES

Not just the design or the architecture, the focus has been shared between the performance factors and core functionality.

4.1 Front End Design:

In order to provide high portability options on multiple devices, a responsive interface which can give unaltered experience on devices with different screen sizes is one of the key strategy to reach out to potential number of users across these devices. Steps Participants in this module can post, queries or answer to others regarding the learning resource by making use of posts and threads this helps in a healthy two way interaction for both type of users.

Module involves:

selection of subject-helps in selecting one out of the pre-categorized subjects.

access the corresponding resource-after which user can either access the resources or upload , both which depends on type of the user profile.

3.4 Social Networking Space:

Comprises of complete features of basic social networking requirements such as viewing friend's news(status),or message the ,or view their profile data and online chatting.

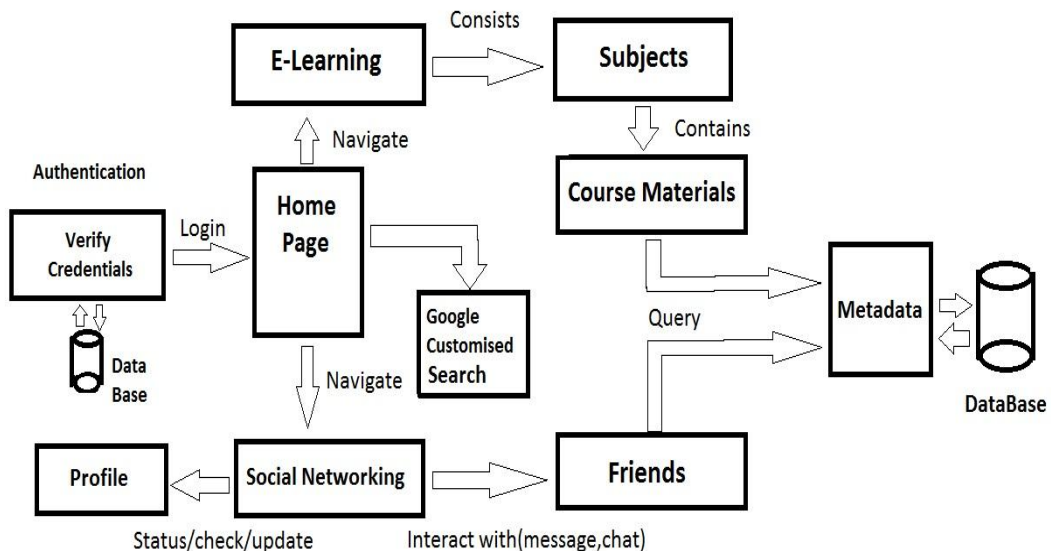


Fig 1: Overview Architecture

are taken to make the interface as simple as possible which is light and do not consume much of space as a part of optimization task.

4.2 Back End Design :

To Incorporate flexibility and a robustness in the system, MVC development strategies has been employed with PHP scripts for the web pages.

Major advantage of having MVC is that view is independent to functionality, this helps for easy maintainability. Serialized objects are the communication media between server and client which greatly reduces bandwidth load.

4.3 Deployment

For cost reducing steps, deployment is strategized to be based upon LAMP software bundle, which is open source and instead of apache from the bundle, we make use of much efficient nginx server.

5. ADVANTAGES

The proposed architecture helps users to experience rich web 2.0 tools for the E-Learning activities, this system can also be made distributed by providing a multicast options for institutions/universities to make announcements or notifying the fellow users, with strategies in place to develop the system as responsive interface, can give portability options and eventually reaching out to more users. The effectiveness comes in way that users like students and faculty can interact each other for healthy interactive learning system.

Performance of the system plays key role in its implementation, country such as India where we receive minimal resources of bandwidth on internet, responsiveness and the size of the system must be kept in check so as to answer this issue, strategies have been devised to achieve this to potential.

6. FUTURE SCOPE

The system at current point of design do not support photo sharing/document sharing, also features such as online tests or departmental divisions in the architecture is currently not supported. Future work can focus on bringing in these functionalities into the system.

There can be a forum where discussions can be held, posts to be made and allow for a greater interaction amongst learners. Furthermore developments have to be made for making the system more efficient in terms of performance and provide effective experience in the learning activities.

7. CONCLUSION

The major goals are to build effective and efficient socialized learning system, and strategies and design techniques have been devised for development of the system, keeping in the mind to reach out to potential number of customers and bind the users with the cover of social network.

8. ACKNOWLEDGEMENTS

I would like to express heartfelt gratitude towards my faculty guide Mrs. Shilpa B, Asst. Professor, Information Science & Engineering Department, Canara Engineering College for her guidance and help in completing this work successfully with good results. I would like to thank my friends who supported me to complete the work.

9. REFERENCES

- Ming Chi, L., Explaining and predicting users' continuance intention toward e learning: An extension of the expectation-confirmation model. *Computers & Education* 54, 2010.
- Ebner, M., E Learning 2.0 e Learning 1.0 + Web 2.0? , ARES, IEEE, 2007.
- Awodele, O., Idowu, S., Anjorin, O., Adedire, A., & Akpore, V., University Enhancement System using a Social Networking Approach: Extending E learning Issues, *Information science & Information technology*, Volume 6, 2009.
- Zaidatun Tasir, "Students perception towards the use of social networking as an e-learning platform".