LEARNER CENTRIC ENHANCEMENT TOWARDS SOCIO MOODLE

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ABSTRACT

With the help of Internet, reaching the far corners of the world has become a reality. Hence, the interest in online education has seen an exponential growth. As social media platforms penetrate classroom teaching, we take a step back and study the impact of social plugins in Moodle. In this paper, we present the outcomes of using Facebook and YouTube plug-in within Moodle framework to enhance learner outcomes and effectively engage learners for achieving set objectives. From the analysis we conclude that, integration of Facebook provides an interactive dimension to the Moodle system. The social plugin provides a platform where students can publish and advertise their achievements and thus it will attract people for the same. YouTube plug-in can help the students to easily access the video lectures offered on the site for the courses they have registered so that they do not have to search explicitly about the lectures on YouTube.

Index Terms—Moodle, Learner emotions, Digital Natives, Facebook, YouTube

1. INTRODUCTION

The world has radically changed and technology is driving much of the change that we experience today1. This century brought, like every previous one, new technologies that influence not only the way we do things but also who we are. The new generation of learners have different patterns of work, attention and learning preferences. Due to the development of communication technologies, we have witnessed an explosion in all areas of human knowledge and rapid proliferation of inter-disciplinary areas. Recently, Web 2.0 has become the new platform in the development of Internet applications. According to Tim O’Reilly [1], the term “Web 2.0” means putting the user in the centre - designing software that critically depends on its users since the content as in Flickr, Wikipedia, etc is contributed by millions of users. In this modern era of technology, a new generation of learners has risen. Today’s teens and people in their twenties are dubbed as “Digital Natives” generation [2]; they are the generation who did not know the world before the Internet. Everyone has access to being online. “Online” is no longer limited to the computer screen.

According to Garry Small, the Director of the Memory & Aging Research Center at the Semel Institute for Neuroscience & Human Behaviour at UCLA [2], the Digital Natives are cradled in technology; they are intuitively tech-competent, exploring and trying things out many things. Multitasking allows them to instantly gratify themselves and put off long-term goals. Completing simultaneous tasks often provide a superficial view, rather than an in-depth understanding of information. Educators complain that young people are less efficient in their school work. Chronic and intense multitasking may also delay adequate development of the frontal cortex, the area of the brain that helps us see the big picture, delay gratification, reason abstractly, and plan ahead. Multitasking leads to a short attention span and errors in decisions and judgment.

The Digital Natives seek instant gratification, praise, and recognition. They have been getting attention and encouragement throughout their formative years and have a strong feeling of entitlement; they challenge authority. Many teens feel that they are invincible. Since the regions of the brain responsible for empathy develop in the later stages of adolescence, too much exposure to the Internet and computer
games, rather than real face-to-face interaction, may inhibit this development, and the brains neural pathways may never catch up. Todays teens “may remain locked into a neural circuitry that stays at an immature and self-absorbed level, right through adulthood” [2]. Yet, on the other hand, they are very social and constantly communicate. They are used to texting each other any minute, they keep up with hundreds of friends on Twitter2 or Facebook3, and they switch seamlessly from phone to text, to chat, to e-mail, to social networks, to reality. They easily create new relationships (mostly online) and maintain many relation- ships (mostly weak and shallow just keeping in touch and exchanging information rather than sharing deep empathy and support). They are strongly peer-oriented within their own age group. They are smart, competent, very efficient in achieving their goals when motivated, and able to locate and mobilise a lot of resources and people for the purpose at hand. Teaching such a generation through eLearning platform outside the realm of social paradigm has seen increasingly challenging.

At a time, when social media platforms penetrate classroom teaching, we take a step back and study the impact of integrating social plugins in Moodle4. In this paper, we investigate the impact of social platforms such as Facebook and YouTube5 towards enhancing the learner experience on using eLearning platform namely Moodle. From the evaluation analysis we conclude that, integration of Facebook provides an interactive dimension to the Moodle system. The social plugin provides a platform where students can publish and advertise their achievements and thus it will attract people for the same. YouTube plug-in can help the students to easily access the video lectures offered on the site for the courses they have registered so that they do not have to search explicitly about the lectures on YouTube.

2. MOTIVATION

The influence of emotions on learning is still under-emphasised. Recently, a growing body of literature (e.g., [3]; [4]) has begun to espouse the central role of emotion to any learning endeavour and outcomes, especially in online learning platforms. Continuous and increasing exploration of the complex set of parameters surrounding online learning reveals the importance of the emotional states of learners and especially the relationship between emotions and effective learning (e.g., [3]). Research [5] also demonstrates that a slight positive mood does not just make you feel a little better but also induces a different kind of thinking, characterised by a tendency towards greater creativity and flexibility in problem solving, as well as more efficiency and thoroughness in decision making. These findings underscore the important effects of emotions on learning. Human brain is not just as a purely cognitive information processing system, but as a system in which both affective functions and cognitive functions are inextricably integrated.

In the context of growing popularity of social platforms, we undertook a study on learner preference towards online education platforms. Figures 1 to Figures 6 offer a breakdown of the analysis on the survey6. The survey received responses from 122 individuals out of which more than 80% were of age from 21 to 29. Also, the survey was mostly answered by students who are either pursuing education at bachelors or at masters level. However, a small percentage of the respondents were faculty member of VIT University.

![Fig. 1. Popularity of Social Networking Websites](https://www.surveymonkey.com/s/R8QGH27)

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2http://twitter.com
3http://facebook.com
4http://moodle.org/
5http://youtube.com
6https://www.surveymonkey.com/s/R8QGH27
targeting few topics will be highly welcomed as well.

Fig. 2. % of time spent on Social Platforms

In order to enhance the MOOC experience, many researchers have contributed to the literature. Prior to the study on the experience, there is a consensus that MOOCs, correctly deployed, do offer education institutions a useful lever for restructuring and transition. On balance, the literature expresses the view that MOOCs will probably not threaten traditional forms of University teaching in the short term, but a significant sub-group of credible writers foresees wide and sudden changes and disruptions to HEIs from MOOCs [6]. Learners experiences in MOOCs are examined in literature, both through statistical analysis and anecdote. The statistical approach has yielded insights about different types of learner behaviour in MOOCs, creating a distinction between learners who are auditing, sampling, disengaging and completing. Statistical analysis has also captured a trend of diminishing learner participation in MOOCs over course durations. Writers assess MOOCs as challenging environments which can discourage or disorientate many learners, as witnessed by the low percentages completing. However, the literature also shows that mere completion is not a relevant metric, that learners participate in many valid ways, and that those who do complete MOOCs have high levels of satisfaction. There is as yet no agreed satisfactory system of measurement for assessing the quality of MOOCs from the learners point of view. Formal analytical reporting of the MOOC issue almost invariably diagnoses MOOCs as potentially disruptive and likely to threaten existing practices. With the exception of Canadas early MOOC Model report written in the optimistic moment of the first cMOOCs, authorities who commission or produce systematic MOOC analyses receive variations on the same conclusion: MOOC formats will pose huge challenges for existing HEI business models, for institutions at all levels, for pedagogy, and for international education [6]. Challenges for learners also emerge as a consistent thread of analysis. There will be benefits in terms of flexible pathways and accessible affordable learning. However, the literacies and skills required to benefit from MOOCs are very specific, and existing educational curricula may be unsuited. Journalistic writing is significant, because popular discourse in mainstream media titles is shaping the MOOC trajectory. Public attention creates a bubble of hype and a must have factor, which may be contributing to a herd mentality and a stampede to produce MOOCs [7]. Positively-spun press articles hail MOOCs as the hi-tech engine of a transformative revolution that will remake education as a highly engaging, open and low cost activity. Critical journalism decries the hype surrounding MOOCs and claims that their benefits are illusory, and that in reality MOOCs harbour undesirable and inappropriate behaviours. Clear numerical evidence of the balance between these two opposing spins of press coverage is hard to obtain. However, anecdote, observation and a count of search query returns suggests that the proportion of negative commentary may be rising. The critical challenges for MOOCs are the exploration of a viable business model and the accreditation of MOOC learning. The maturing of the MOOC format is attested to in the literature by analysis of an emergent and still incomplete picture of MOOCs falling costs and growing revenues. To this end, many universities are offering a “Specialisation” track through their eLearning portal, where the learner could be offered a certificate of accomplishment while other

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7https://developers.facebook.com/docs/opengraph/overview
participants are offered a certificate of participation\textsuperscript{8}.

3. PROBLEM STATEMENT

Researchers from Harvard and MIT studied various aspects of 17 MOOCs offered in 2012 and 2013 through edX, the online learning platform established by the two universities. Schools offering edX also includes Caltech, Hong Kong University of Science and Technology, IIT Bombay, and McGill\textsuperscript{9}. The courses analysed included such topics as computer programming, data analysis, and electromagnetism and also an array of disciplines including computer science, electronics and engineering. Just 5 percent of the more than 841 600 people who registered for edX courses earned a certificate of completion. In fact, 35 percent never viewed any of the course materials at all. While the benefits of MOOCs are many giving people in remote locations or the poor the ability to get a high-quality education and eliminating the need for college loans, the Harvard/MIT study found that only about 3 percent of attendees were from underserved areas and that more than 65 percent of all registrants already held a bachelors degree or higher\textsuperscript{10}. Although there is no doubt that MOOC platform offers many learners an added incentive to complete the course, the lower completion rates has remained a cause of concern. In Figure 7 the statistics on the MOOC completion rate is presented for a particular course, which we consider as a representative of the trend on a large-scale platform.

Researchers are trying to understand why the vast majority of students fail to finish free online classes and who is signing up for the classes to begin with. One widely quoted dropout figure for students in massive open online courses is 90 percent. The number would be staggeringly high for a traditional class and has been used to cast doubt on the promise of MOOCs\textsuperscript{11}. The number is simple to come up with: take the number of users who register for a course and compare it to the number still participating at the end. But is it fair? Some researchers say MOOC dropout figures being bandied about do little to describe why hundreds of thousands of people across the world are signing up for MOOCs in the first place. All but a few of the courses offered by MOOC providers are free and don’t earn students any college credit. There are also no enforced prerequisites as there are for normal college courses. The average completion rate for massive open online courses is less than the total enrolment of students for courses\textsuperscript{12}.

4. PROPOSED FRAMEWORK

The popularity of social platform has led to innovative exploitation ranging from sharing information to creating closed groups among few participants. As such at VIT University Facebook platform has been embraced to share instant news updates across more than 300 students by faculty members. However we still believe there exists a significant gap between an eLearning platform and social platform such as Facebook. Therefore, to facilitate transparency across these two platforms we have proposed a bridge architecture UJAM, which provides support for exporting Moodle metadata into Face-
book and vice-versa. In Figure 8 the proposed framework of the system is presented. The framework uses the standard SDK components and compiles with authentication protocol of both Moodle and Facebook.

In the above system architecture diagram there are three stakeholders viz. Site Admin, Faculty & Students. There are two aggregation entities viz. Moodle & Social Websites which communicate with each other using OAuth 2.0. The site admin can create, configure the courses and setup security. He/she can also assign roles as teacher or students and restrict permissions accordingly. Teachers can create their courses and allow students to register for the course which gets confirmed by a self-generated email. Teachers can also conduct online quizzes, evaluate them and many more classroom related activities online. The Facebook is integrated with the Moodle by using OAuth 2.0 technologies and by using Facebook’s php SDK. An access token is being requested by the user for authentication and he grants permission to login to his/her Facebook account. Students can post their comments on the Moodle and it gets posted on their Facebook walls. YouTube plug-in integrated with the Moodle system is used to add video lectures. The Figures 9 to Figure 12 represents the screenshots of the system with the plugins enabled.

We hypothesise that, the use of social plugin with Moodle will provide positive encouragement for the learners to com-
complete the course through social acceptance and quick reward.

4.1. Moodle eLearning Platform

Among many eLearning platforms that are available, we chose Moodle as a platform of preference for a number of reasons. Moodle is a widely distributed learning management system that enables a tutor to create a course and share course material content with the registered participants. The platform offers a user-friendly flexible support for both tutors and learners. Also, the platform is available in the open-source domain for anyone to download and customise the same to suit one’s requirement.

5. CONCLUSION AND FUTURE WORK

In this paper, we presented an overview of Facebook and YouTube plugin development towards Moodle integration. The initial evaluation of the framework has resulted in positive outcome for effectively engage learners towards achieving set objectives. The social plugin provides a platform where students can publish and advertise their achievements and thus it will attract people for the same. YouTube plug-in can help the students to easily access the video lectures offered on the site for the courses they have registered so that they do not have to search explicitly about the lectures on YouTube. A more comprehensive evaluation of the platform will be conducted during the Fall semester of 2014 in VIT University.

6. REFERENCES


