

MOODLE, WEB 2.0 & “IFRAME”

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Abstract

It is increasingly important to use the web 2.0 tools in teaching activities. This poster aims to show the usefulness of linking and embedding Web 2.0 tools with Moodle, specifically Google apps through a simple HTML element: "iframe". Moodle is a LMS without connection out of platform. With this HTML element you can display external content on the platform, without leaving Moodle. It is even possible to publish and edit documents from the restricted access Moodle platform. The steps to embed the tools begin with a choice of the desired tool, then generating its corresponding code. Finally, the "Iframe" code is prepared for publication inside Moodle. The "Iframe" allows using within Moodle different external applications. Some of these allow published information inside Moodle course via emails, allowing posting images by mobile phone, updating and collaborate in documents and including external calendar.

Keywords: Innovation, technology, research projects, etc. Moodle Web 2.0 iframe.

1 INTRODUCTION

In the context of the revolution of information technology, there is going awareness toward its impact on the future of teaching activities especially for higher education. Information and Communication Technology (ICT) plays an important role in learning and teaching as inevitable tools supposed to help educators in developing their activities. By Technology we refer to the capabilities, given by the practical application of knowledge, in carrying out their subjects a) more efficiently, b) more precisely and c) more thoroughly. Among the ICT, several Social computing applications (i.e. web 2.0 tools) are being increasingly used in the educational contexts [1]. However, the main educational platform (Moodle) devoted to education still having some limitation to embed application within its structure in a simple way.

Several universities and educators consider that Moodle can make significant improvement in teaching activities. They seek to allow Moodle (the world wide educational platform) to have some effective “assistance” for both teachers and students. In this context, the idea behind this document is to comment briefly how to link some of the web 2.0 tools as assistance to the main function of Moodle. Specifically we explain how to embed some application using the *iframe* html syntax. We have chosen three applications due to their relevance in teaching activities; Picasa, Blog and Google Documents.

The document is structured as follows: the next section discusses the new technologies that are increasingly applied in teaching activities. It is followed by a short explanation of the Moodle platform and a short definition of the web 2.0 applications. Section 2 explains how to embed web 2.0 tools within Moodle and what are the main utilities they could provide to teacher. The document ends with some concluding remarks.

1.1 New technologies applied to teaching

New technologies are changing modes of learning, collaboration and expression. ICT afford a suite of opportunities that meet the challenge of the knowledge. They enable new communication structures that radically reduce constraints of distance and time, and enable novel environments for research, teaching and engagement [2]. Among ICT technology, the Web 2.0 tools are of high relevance in developing educational activities and a way to involve student in different task. From the different resources on the web, we highlights the relevant tools used for collaborating offered by Google applications such as Picasa, Blogs and documents among others. As commented by [1], social computing applications are primarily conceived of as communication tools among students or teachers and between students and teachers. They support the exchange of knowledge and material; facilitate community building, providing teachers and learners with social environments that offer assistance and provide platforms for collaboration, allowing teachers and learners to jointly develop.

1.2 Moodle

Moodle (Modular Object-Oriented Dynamic Learning Environment) is a free source e-learning software platform. The design and development of Moodle is guided by a "social constructionist pedagogy" [3], emphasizing that learners can contribute to the educational experience. This software package is spread around world in more than 200 countries and more than 70.000 registered sites.

Moodle shows good management courses and classes, allowing control of a subject within the space of this. Moodle has several features and activities, and you can increase these activities by installing modules. But some of his activities are limited, e. g. management of documents and images, you must manage file uploads and images one by one into the platform with a poor design. It's hard to collaborate on a document, and edit more than one person at a time. In sum, Moodle has a set of interesting activities for teaching, but in many cases are too basic. This problem could be solved if Moodle is well connected with the "world" that exists outside of Moodle, where we can find tools that allow us to strengthen the activities in Moodle.

1.3 Web 2.0

Moodle is a web 2.0 platform, defining a Web 2.0 site as a web that allows users to interact and collaborate with each other generating content in a virtual community. It has been widely used many web 2.0 tools from Google company, and that allows students, who use these tools in their daily lives, learn to use many of them. Therefore, the use of these tools is an advantage for teacher student interaction and student-student.

2 EMBEDDING WEB 2.0 APPLICATIONS WITHIN MOODLE

Several steps to allow an effective and correct use of the web 2.0 tools within Moodle. The idea behind embedding the application is based on the use of the "iframe" syntax, after selecting the required tool it is important to generate the iframe syntax. The Iframe element (inline frame) is an element in HTML language that allows inserting a frame within a block of text or embedded HTML documents in other HTML documents (You can also embedded HML documents with the OBJECT element) [4]. With this simple element can connect with the outside Moodle, "apparently" inside the Moodle application. You need the address of the page that you want to embed in Moodle, and width and height of the new window. Fig. 1 represents a summary of the syntax.

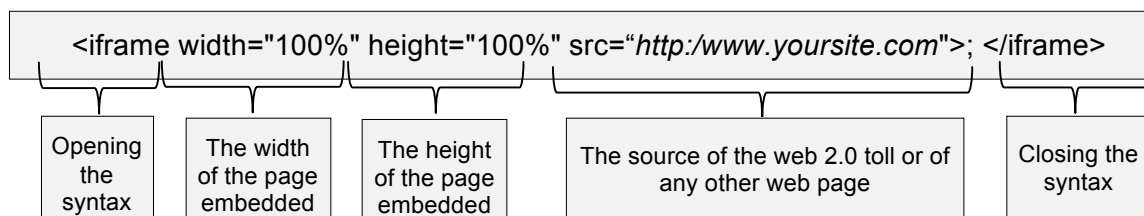


Figure 1: the Iframe syntax

Summarizing, the different stages to link the application to the the Moodle frame can be seen in Fig. 2.

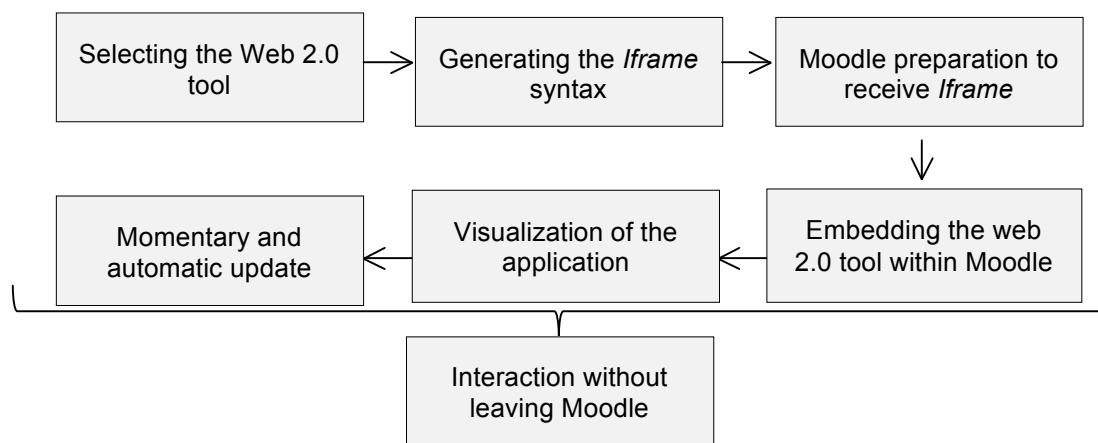


Figure 2: Steps to embed web 2.0 application into Moodle

2.1 Applications

There are a lot of web 2.0 applications that can be embedded within Moodle using an *iframe*. However, we focused only on three tools from Google applications due to their relevance and increasingly use in teaching activities. These are Picasa, Blog and Google Docs.

2.1.1 Picasa: publishing images in Moodle by e mail.

As it is well known, *Picasa* is an image organizer and viewer for organizing and editing photos integrated within a photo-sharing website belonging to Google. The utility of this tool is that it allows embedding a slideshow from an existing album in Moodle. It'll be automatically updated when any changes is done in the Picasa album. The real utility in the teaching activities is allowing student to submit and share photos related to any concept explained in the class. In addition, it allows them to publish any photo in Moodle by just sending it as attached file in an e-mail. It is relevant mentioning that this tool provides directly the *iframe* syntax as can be seen in Figure 3.



Figure 3: Iframe syntax generated automatically by Picasa

Among the potential use of this tool we highlight these utilities:

- Pictures in the laboratory especially for the experimental studies...
- Pictures in the field especially for the classification of plants, plant diseases, taxonomies in general...
- Images of structures and construction...
- Images for related event with class room activities.
- Images for agricultural markets such as wholesalers, farm auctions...

2.1.2 Blogs: publishing text, images or files in Moodle by e mail

We can use the Blogs sites of Google, or other blogs, to interact with students [Fig. 4a]. Then you can insert this blog in a window inside your Moodle course, after setting up the blog with the desired characteristics [Fig 4b]. This system allows an open publication on the web (Internet), made from Moodle while keeping the management within Moodle group class, Moodle does not allow easily an open publication.



Figure 4 a) Google blog site b) The same blog site inside Moodle

As in the case of Picasa, one characteristic of the Google Blog is that it also allow to configure it (with a secret word in the emails address) in order to publish content through an email, in which the subject of the message, will be the title of the new post, and message content, will be the new post.

You can add attached files and even if we add an image as an attachment, this will also be posted on the blog. This system allows to update the blog content, and therefore Moodle easily eg photographing the result of a practice in the lab, and sending the image with a comment by email.

2.1.3 Google Documents: Collaborative work

Also, with same system, you can use another application of Google, Google Docs. Google Docs not only allows sharing documents (spreadsheets, texts, presentations...) remotely (cloud) but also allows a group working at the same time (synchronously) on the same document (Fig. 5). This allows students work in group without limitations of having a space where carry out the activity, with fewer limitations on the agenda, but should not exclude face discussions on the work previously done.

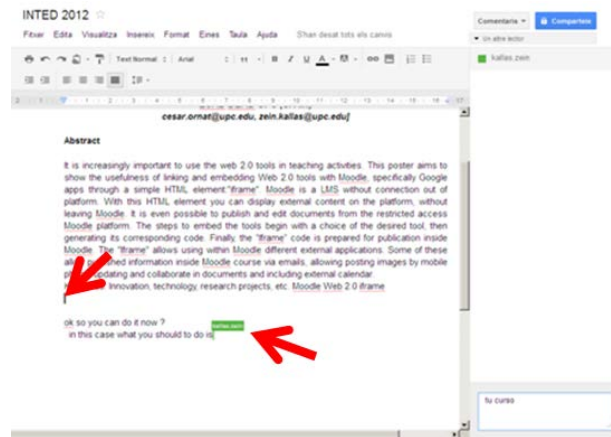


Figure 5 More than one user working in the same document at the same time (red arrows: green and black cursor)

3 CONCLUSIONS

The rapid growth of social computing or web 2.0 applications is driving historic changes in teaching and learning. The number of tools available and the number of users increases every day. However, both students and teachers are always asked to focus on few of them in order to avoid confusion with the basic education platform (Moodle). Thus our main idea is to always embed the most relevant tools (in our case Picasa, Google Docs and Blogs) within Moodle without leaving its main frame, by doing that student are always perceiving the tools as a part of the whole structure.

Very often we discuss about the consequences of the works that make innovations on the educational environment around us. We should introduce the web 2.0 tools to students or it would be enough with Moodle applications?. it is not the aim of this document to comment what is the better option but we believe that both are complementary. These applications are having a high impact on the human environment, human relations, with new forms of access knowledge about distributed among individuals in different ways, and more generally, of new forms of connection between people.

ACKNOWLEDGMENT

The authors gratefully acknowledge financial support from UPC ENDESA RED "Victoriano Muñoz Oms": Humanitarian values in engineering to participate in the 6th International Technology, Education and Development Conference.

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