The TUGLL-Plug-ins

Special Needs for a University Wide Blogosphere

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Abstract: This paper presents extensions that have been programmed by the Department Social Learning (DSL) at Graz University of Technology (TU Graz) for a blogosphere used at TU Graz called TU Graz LearnLand (TUGLL) on base of the open source software ELGG. These extensions are useful upgrades to the system following the demands of the pedagogical strategy of the TU Graz. A description of the extensions and didactical considerations are discussed.

Keywords: Higher Education, Weblog, Web 2.0, e-Learning

Categories: K 3.1, L 3.0, L 3.6

1 Introduction

Web 2.0 applications [O'Reilly, 06] such as Wikipedia, YouTube, Flickr etc. are pervading our daily life more and more [Maurer, 06] [Richardson, 06] [Korica, 06] [Kolbitsch, 06]. In this context the importance of weblogs as a way to express individual thoughts and experiences is increasing enormously. Learning and teaching processes are influenced by these technologies as well. In case of Web 2.0 applications used for learning scenarios this is named E-Learning 2.0 [Downes, 05].

Although a lot of Web 2.0 technologies have their origins in the 90s of the last century actually the breakthrough of Web 2.0 has been facilitated by the establishment of broadband in the last few years. Researches, experiences and evaluations about the didactical reasonable usage in practice of Web 2.0 technologies such as weblogs for teaching purposes are therefore rare.

Since October 2006 TU Graz has decided to support a university wide blogosphere called TUGLL on base of the open source software ELGG. TUGLL offers an own personal blog environment for each member of the TU Graz, students as well as teachers and other employees. These blogs are connected to each other and display the community of TUGLL. A personal blog is being created by the first login of the new user. After half a year of experiences lots of necessities adjusted for teaching and learning behaviours were added. In other words the blogosphere had to be enhanced with "special needs". In this publication plug-ins targeting on these needs that had been programmed by the DSL are described. Another chapter attends to the aspect that these extensions base on pedagogical considerations.

2   The TU Graz LearnLand

ELGG[1] is an open source blogosphere platform that is used as a social networking environment at TU Graz. By definition to be read at ELGG homepage "… it was established in March 2004 by Ben Werdmuller and David Tosh and designed to allow people to easily connect and share resources. Users can establish digital identities and connect with other users, collaborate with them and discover new resources through their connections. Plug-ins allow users on different social networks to collaborate, and provide specific functionality …".

2.1   Extensions

Expandability is an advantage of the system and bases on its modular structure. Plug-ins can easily be implemented and attached to the system to increase and expand the functionality without interfering with other modules. The following subchapters describe Plug-ins and extensions developed by the DSL focusing on learning purposes.

2.1.1   The "Bookmarks Plug-in"

The "bookmarks plug-in" in combination with ranking module [Ebner, 08b] enables users to share interesting links and URLs as additionally information., It can be compared to famous applications like "del.icio.us" and "Mr. Wong". To simplify saving bookmarks an import/export-functionality comes with the plug-in. Lists of bookmarks saved on local browsers, can easily be imported and shared with a single click. The plug-in also supports bookmark files as XBEL format (XML Bookmark Exchange Language). Another feature that makes bookmarking easier is the "TUGLL it" browser button, a so-called bookmarklet. Once installed the user only needs to click on the "TUGLL it" browser button and the current URL gets saved as a bookmark in the personal blog on TUGLL.

2.1.2   The "XMLRPC Client Plug-in"

As mentioned at the beginning, TUGLL bases on ELGG, which is an open source blogosphere platform that is meant to be used as a social networking environment by many universities and scientific organisations worldwide. The "XML-RPC Client plug-in" allows ELGG platforms to communicate and interact with each other. It provides their users with different services through a web service interface, which is based on XML-RPC, a remote procedure call protocol. If the search mechanism of the ELGG system is being expanded into the plug-in during installation it is even possible to let the search run through other ELGG platforms connected to.

2.1.3   The "Module Settings Plug-in"

The "module settings plug-in" helps the user to configure existing modules according to personal needs and preferences. The user may activate or deactivate single modules

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[1] http://elgg.org (last visited: 08.04.2008)

and sidebar elements one by one or set their status by default. Modules and their corresponding sidebar elements can also be sorted or hidden.

2.1.4   Generic Widgets for Profile-Page and Sidebar

The user's profile is the page where the user presents her-/himself. In addition to usual personal information comprising contact data, interests, likes, dislikes, and so on, users can implement different types of widgets to their personal profile page and sidebar. The idea of this extension is to let the user design her/his own profile/sidebar generically. No definite types are defined; the user is able to embed any kind of widget into her/his personal profile page, which for instance could be a piece of HTML code, java script or flash application.

2.1.5   MetaWeblog API

The need to increase usability for simplifying interaction with the modules of the platform is obvious. The "TUGLL it" browser button is a good example for this task. Users can save bookmarks as easy and fast as possible even with no login to the system. The "MetaWeblog API" provides users the same functionality but for blogs. It enables the so-called remote blogging. The user only needs to install an offline blogging tool. After setting the access data and the "MetaBlog API"-URL the user can start blogging offline with no need to login to the system. Another advantage of the "MetaWeblog API" is the possibility to post a contribution on one platform and a copy of it is being saved on other platforms too, assumed that they support this API.

3   Plug-ins' relevance from a pedagogical point of view

Discussing the fact that the implementation of a new tool for teaching and learning efforts must come along with didactical scenarios; otherwise the new tool will hardly be accepted by teachers and students and cannot be implemented or used in a reasonable way. There is no perfect teaching or learning tool inherently. First of all the user must feel comfortable about using the tool then he/she will become more creative by using it. Nevertheless each tool has specific aims and functions and insofar is limited to its usability per se [Ebner 08a].

3.1   Discussing the TUGLL extensions

The "bookmarks plug-in" meets the advantage of the community character of a blogosphere and furthermore fulfils the desire to collect things and have them available anywhere and anytime. The beneficial aspect is that bookmarks become part of a whole system of personal data, files and history within a community. The pedagogical effect is that anybody of this community gains from ones personal experiences. Therefore the "bookmarks plug-in" has been enlarged with a ranking system. Users are able to evaluate each other bookmarks and with the help of a ranking algorithm the most important bookmarks according to personal needs can be presented.
The "XMLRPC Client Plug-in" can be seen as a service for optimisation of the way we explore information. The possibility to search not only in one but many ELGG

databases increases the probability to hit the information searched for and enhance the local university community by connecting to other educational institutes.

The "Module Settings Plug-in" and the "Generic Widgets for profile-page and sidebar" satisfy the needs for individualisation as well as for usability. It is of high importance that the user has the opportunity to adapt a system to her/his individual demands. The more this is enabled the more she/he will identify with it and feel convenient to work, learn, teach, play and live with it.

Finally the "MetaWeblog API" specialises the remote blogging functionality of ELGG and matches it to fit in other blog-systems than ELGG if wanted.

4   Summary

Stephen Downs asked whether weblogs might become personal learning environments in the future [Downes, 07]? Since their integration to the e-Learning strategy of the TU Graz, TUGLL has become a multifunctional platform already exceeding the intentions of a blogosphere. It has turned into an online community-storage of personal collected information, interactions and individual connections displaying the historic of ones own study. The power of weblogs is beginning to transform into a kind of e-Portfolios more and more.

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