

A user interface for usage control

Hiwi assignment

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Starting date: immediately

Prerequisites: LAMP – Windows/Linux (operating system), Apache HTTP Server, MySQL (database software) and PHP (programming language)

Introduction

Usage control requirements specify restrictions and compulsory actions that relate to the future handling of data. These requirements can/must be enforced at different levels of abstraction within a system (e.g. operating system, windowing system, java byte code, service level, etc.) and across systems also. This is because data has different representations at different levels of abstractions in different systems. Similarly, actions, like “copy” or “delete” etc. also have different semantics at all these levels. In order to control the usage of a specific data, we need to monitor and track actions performed over all of the representations. This assignment is about usage control at the application layer, specifically, in a web application.

Open source social content management systems (OSCMS) are being used increasingly by developers to launch their own social networks. One such OSCMS is PHPizabi [1], which uses LAMP. We have extended the basic PHPizabi social network to include usage control enforcement mechanism. We call our usage controlled social network SCUTA [2]. We have modified the basic user interface of PHPizabi to enable the user to specify his preferences for usage control. However, the present web application is in a prototypical state and the user interface of SCUTA requires major overhauling.

Work package

The goal of this assignment is to modify the user interface (UI) of SCUTA in such a way that usage control settings are easier, intuitive and attractive to be used in the new interface.

Submission of the following is mandatory at the end of the assignment:

1. Raw code
2. Code in executable format
3. Virtual machine(s) for demo of the work
4. Documentation explaining the set up and usage of the code and the virtual machine(s)

Work Plan

1. Familiarize yourself with the existing system.
2. Complete the workpackage.
3. Submit your work as explained above.

References

- [1] PHPizabi homepage, <http://www.phpizabi.net/> [Accessed: October 13, 2010]
[2] SCUTA homepage, <http://jenskuhn.eu/sns/> [Accessed: October 13, 2010]