Web-Survey for the Efficient Evaluation

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Abstract:

Web based surveys are a useful tool for the acquisition of feedback. Open source tools are welcome due to the excellent ratio of cost/quality. phpESP is a package of PHP scripts. It enables easy creation, testing and implementation of web surveys. The designers and the end users only a web browser on computer with access to internet require for the implementation and performance. Slovenian localisation of phpESP is supported by the recently established centre for support to open source. In the present paper a few ideas about implementation of web-surveys in the education are given. A practical example of case study of open source software employment in high schools is presented.

1. Introduction

The Slovenian Government has adopted the proposal of the Ministry of Information Society on the development, implementation and usage of open source software [1]. This policy document aims to have taken an equal stand towards open source and proprietary software and solutions. Slovenian government is supporting development, localisation and usage of open source software. There was every year public tender for the co-financing of projects, which aimed to develop, localise or disseminate open source [2].

This year we are facing a new strategy. The topic of tender is not a series of projects, but funding establishment and re-establishment of development-supporting centre for open source [3]. Centre COKS [4] will introduce systematic support for the usage of open source and development of it. The core of the centre is a consortium of companies, societies, institutes and educational institutions. All activities are coordinated inside this consortium under the management of company Agenda d.o.o. The strategy is to reduce support of the government every year and to increase investment of the private sector. Among the activities of COKS in this year is support to the Slovenian localisation of a web-survey tool, which should support evaluation of open source projects and open source contents. In this article open source package phpESP is presented including some ideas of usage in the schools.

2. Web-Surveys

2.1. Advantages of Web-Surveys

Recently, web based surveys have become very popular. There are many ways to implement surveys on commercial servers. However, full power of applications can be obtained only on server with appropriate software and privileged access to the services.

Surveys are a powerful tool for all fields where feedback from many people is crucial for the evaluation and further decisions. Nowadays, ICT and World Wide Web (WWW) play an important role in our society. WWW is a place where different people meet with different interests and ideas, and where a web survey is a standard of many interactive web pages. Small surveys on the edge of the web pages are inviting us to fill them and check the results of it.

In the educational system the usage of different surveys is extensive. We can survey goals achieved, for example transmission of the knowledge, information about used methods, etc. The classrooms with IT equipment are offering a perfect opportunity for the web surveys. The web surveys in the educational system are important since students can be anonymous and therefore their answers are more honest than by paper surveys, collected by the teacher. All collected information is saved and can be used for processing of different data. Gathered results including

statistics are available online. Each user can fill out and submit survey by using any web browser. There are available many services for preparation and implementation of the web surveys. Some are free only with limited functionality. However, there are also open source tools with full functionality for free. An excellent example is phpESP.

2.2. phpESP - an Open Source Web-Survey

phpESP (php Easy Survey Package) [5] is package of PHP scripts. It enables easy creation, testing and implementation of web surveys. The analysis of the results is simple and it is also possible to export the data. This year is Slovenian localisation in progress in the framework of the project supported by the Ministry of higher education, science and technology.

The system administrator of the server has to install and configure the appropriate software: web server Apache, PHP script language and data base MySQL. He needs to give the username and password to the super-user of phpESP, who is responsible for the creation of the designers and groups of them. Designers could create, deploy and analyse surveys. The creation of a survey can be described in five steps: setting up the general data, adding and editing the questions, defining the order of the questions, inspection of the preview and finishing the creation. With the last step, designer gains an URL to the survey on the WWW. The third group of users is respondents, who can access to the private surveys. For the public surveys the respondents do not need username and password.
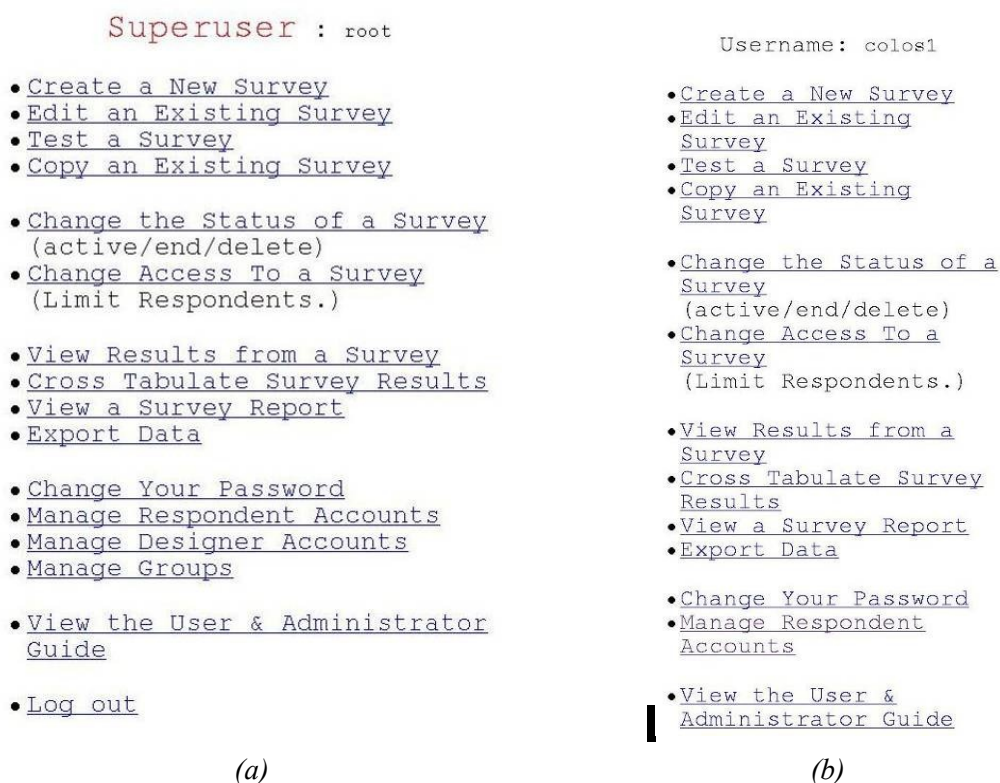
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Superuser : root                              Username: colos1

• Create a New Survey                         • Create a New Survey
• Edit an Existing Survey                     • Edit an Existing
• Test a Survey                                 Survey
• Copy an Existing Survey                     • Test a Survey
                                              • Copy an Existing
• Change the Status of a Survey                 Survey
  (active/end/delete)
• Change Access To a Survey                   • Change the Status of a
  (Limit Respondents.)                          Survey
                                                (active/end/delete)
                                              • Change Access To a
• View Results from a Survey                    Survey
• Cross Tabulate Survey Results                 (Limit Respondents.)
• View a Survey Report
• Export Data                                 • View Results from a
                                                Survey
• Change Your Password                        • Cross Tabulate Survey
• Manage Respondent Accounts                    Results
• Manage Designer Accounts                    • View a Survey Report
• Manage Groups                               • Export Data

• View the User & Administrator               • Change Your Password
  Guide                                       • Manage Respondent
                                                Accounts
• Log out
                                              • View the User &
                                                Administrator Guide
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(a)   (b)

Figure 1: Management interface for (a) an administrator and (b) for a designer.

Each survey has a particular status. At the beginning the designer can change between the editing and the testing mode. Once creation and testing of the survey is finished, the mode of the survey has to be switched to the active one and there is no way back to the previous mode. During the active mode data are collected from the respondents until the mode is changed to the end mode. Again, this step is irreversible. So, no data could be collected. During the end mode it is possible to analyse the results, to make cross tabulations of the results and export the data. In the end designer has to switch the mode to archive. With this operation survey is removed from the list of surveys.

Figure 2: Example of a web-survey with seven questions (first and second page).

2.3. Applications of phpESP in the Education

Surveys could be used in the schools almost everywhere. The most important application is evaluation of the curriculum. We can prepare short and very effective surveys, which do not disturb the lessons. They could be carried out quite often. All we need is a classroom with computers. Short survey could be added to E-learning pages. Open education can gain due to surveys useful feedback and make significant improvement.

Extensive surveys are convenient either for the end or for the beginning of the academic year. With questions of essay type we can also get more complex answers – maybe some idea for the further improvement or just critical remarks. Surveys are necessary for the headmasters for genuine feedback about the satisfaction with teachers, general activities, equipment, etc. By following feedback for a particular subject, one can get information about progress and take right decisions for the investments in equipment and the investments in human resources. Moreover, satisfactory results from surveys could be used for advertising.

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2.3.1. Example of Evaluation – Introduction of Open Source Model

An example of efficient usage of the phpESP is evaluation of an introduction of an alternative IT teaching model in Slovenian schools, which has been implemented in our school [6]. The project was supported by the Ministry of education, science and sport. By using open source software for teaching IT in the first class at our secondary school it is obvious that the pupils are very happy with the variety of the alternative software and that after the course they are adept at using IT. By assuming that with an introduction of the alternative model it is possible to reduce expenses for commercial software and to break of a habit of using pirate software, it is clear that the time for the introduction of the new model has come.

We have surveyed the opinion of approximately 220 pupils since 2002. The first two years we made the survey by paper sheets and it was very time consuming. Therefore, we were motivated to improve the procedure. By looking for an effective solution we had a few requests. For the preparation and implementation of the surveys only computer with web browser and internet access should be needed, full functionality of the survey tool should be available to the users, the collected data should be stored on local server at the school and maybe the most important request was: the survey tool and all necessary software should be free. We found on the internet the phpESP script package, which fulfilled all our requests and after four years we are still very happy with it

3. Conclusions

The web-surveys are offering almost unlimited possibilities also in the schools. First of all, they are appropriate for the effective evaluation of the curriculum. The great importance of the usage of surveys is dictating easy creation, implementation and analysis with a web browser. Open source package phpESP is the right decision according to our experience. The great potential of phpESP can also be used in educational system. On the basis of effective evaluation we can improve the quality of teaching and contribute to the general satisfaction.

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