Experiences and privacy issues - usage of Moodle in Serbia and Slovenia

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Key words: Moodle, localization, privacy, experiences.

Abstract:

In this paper, results of a questionnaire compiled in order to reflect the student experiences with Moodle with focus on usability of the platform and privacy concerns will be presented. The goals of the questionnaire were to provide insight into student opinions, expectations and reservations regarding usability and privacy when using functionalities of a system. Students were also asked to evaluate the quality of the available material and usage of various assessment means. Visibility of user’s profile information, results and grades was considered as well. Further, we discussed the impact of localization (both Serbian and Slovenian language packs are available). The survey was conducted during the school-year 2008/09 at both institutions, with more than a hundred students at each one.

1 Introduction

Contemporary standards in education require usage of different tools in order to supplement teaching and learning processes, as well as efficient assessment. Theory that stands behind one of the most often used is a theory of e-learning. It can be described as software bases founded on the established theoretical postulates, trends in cognitive science, artificial intelligence, and pedagogy. The Learning Management System approach is a basis for a reliable e-learning platform and complies with standards and best practices recommended by respectable educational and corporate stakeholders [6]. At our departments at the Faculty of Science, University of Novi Sad in Serbia and the Faculty of Electrical Engineering and Computer Science, University of Maribor in Slovenia we use such a solution for the design and implementation of courses that are used to support classroom training [3]. We decided to use and possibly extend an existing e-learning platform for our eCourses instead of developing a new one from scratch. After testing several systems, consulting a number of comparative studies and research papers such as [7], [9], [5], [11], we have drawn conclusions on the available tools. The system we would choose should be one of the established general purpose LMS solutions and preferably open source [2], since apart from flexibility and considerable cost savings it offers possibilities for extending and customizing according to one’s specific needs. The evaluation of open source LMSs was conducted according to a set of minimum criteria which included active community, stable development status, good documentation, didactical objective and focus on the presentation of content and communication functionalities. The final choice was Moodle [1], [10], for its fine basic features, great extensibility potential and even some potentially adaptive features which were further developed [8]. Additionally,
the solution has been accepted by University of Maribor as the official LMS, and by significant number of faculties at University of Novi Sad, in order to make reuse of teaching material among local faculties more feasible.

Moodle is a modular and extensible platform which offers features to support different educational styles (blended, distance, and web-based learning). However, issues regarding usability privacy have to be addressed when using such a solution, varying from usability of the environment, security concerns and user privacy aspect. In this paper the results of a questionnaire are compiled in order to reflect the student experiences with Moodle, regarding mainly usability and privacy issues. The study was conducted as a part of a bilateral project between Faculty of Science, University of Novi Sad and Faculty of Electrical Engineering and Computer Science; University of Maribor entitled “e-learning support system with application of data-mining and data security”.

The rest of the paper is organized as follows. Section 2 presents the results of the survey conducted at both institutions, as well as some similarities and differences between them that were noticed during their analysis. Appropriate conclusions are drawn in Section 3 to foster future research and innovations in our teaching practice.

2 Questionnaire Analysis

The goal of the featured questionnaire was to provide insights into student opinions, expectations and reservations regarding usability and privacy of Moodle, the quality of learning material available and usage of assessment means. Moodle has a lot of different functionalities like, forums, instant messages, graded test and chat for which a usability analysis was conducted in the survey. The privacy issues which were investigated using the survey included visibility of user’s profile information, results and grades. Furthermore issues regarding anonymity in questionnaires and possible consequences were dealt with. The final part of the survey addressed localization and opinions on e-learning and Moodle. The survey was conducted during the summer semester 2008/2009 at both institutions, with comparable numbers of students.

2.1 Situation in Slovenia

The Slovenian survey was conducted on a sample of 136 students from two different study programs –Informatics and Communication Technologies, and Media Communications. The first group of students had a share of 65%, whereas the second group of students had a share of 35%. Regarding the year of study, 37% were first year students and 64% were second year students. The gender distributions included 77% male students and 23% female students which can be explained by the fact that both study programs are technical study programmes which have the majority of male students. However with the study programme Media communications about half of the students are female which is above the ordinary distribution for technical studies in Slovenia which have about 90% of male students.

Most of the students who have participated in the survey (92%) are satisfied with privacy in Moodle, whereas 8% are not satisfied and also gave reasons why. The most frequent reason is that other students who participate in same course are able to see when exercises of other students are submitted, whereas the second most frequent reason is the ability to track the status of other participants in the course, i.e., when they are online. An additional view of privacy in Moodle was investigated, namely who should be able to access data from other users’ profiles. 54% of the survey participants answered that all the course participants should have access and 27% believe that nobody should have access. Additionally, 18% believe that
all registered user should have access to other users’ profiles and just 1% answered that anyone should have access. When the students were asked which data should be hidden the most frequent answers were: grades of students, contact information and the time when an exercise is submitted.

Moodle also has communication capabilities like blog or chat. The survey investigated how much students use these capabilities and 89% of students do not use blog functionality mainly because they do not need blog functionality. The second most frequent reason according to students is the fact that they do not use blogs at all and the third reason that they do not know that this functionality even exists. Similar results were acquired for the chat capabilities in Moodle: 70% of students do not use it and mainly because they use e-mails instead resp. they do not need this function. Additionally, most students (60%) do not use instant messaging and forums, and 40% of those who use it, apply it mainly for educational purposes, e.g., to ask questions related to subject or exercises, to get help from other students or teachers and to submit exercises.

Another component of Moodle which was investigated is the students’ participation in collaborative work, e.g., preparation of a Wiki. The survey showed that 28% of the students have already used these capabilities and 66% of those are not bothered by the fact that other participants can change their part of work any time.

Another aspect which was investigated was the students’ expression of opinion about teacher using Moodle. The first, questions investigated if students are afraid of consequences if they express a negative opinion about a teacher resp. criticize him or her. The results show that 63% of the students are afraid of the consequences if they criticize a teacher. However, 84% of these students added that they opinion is not based on previous negative experience. The rest of the students, 37%, are not afraid of consequences if they criticize a teacher despite the fact that they are not anonymous. In general, students would asses a teacher if they would be assured anonymity. If we further analyze the students’ relation to answering surveys, 81% of students would participate in the same survey (as was conducted for the purpose of the paper) on Moodle and would answer the same if they would be assured anonymity. The rest of the students, meaning 19%, would not participate in this kind of survey on Moodle because they do not trust that questionnaire would be anonymous.

A functionality of Moodle enables students to take grad tests. From the participating students 43% have already participated in graded tests and 41% of these students believe that testing on Moodle influences the grading process. Moreover we asked students if they think that testing within Moodle gives more possibilities to cheat. The majority (65%) does not believe that it gives them more opportunities for cheating and 35% believe the opposite. Moodle also enables teachers to restrict the testing to a controlled environment, e.g., access from only certain IP addresses or a supervised computer room. However, only 41% of students would agree to such restrictions.

Regarding the quality of the learning material on Moodle, the majority of students are satisfied with the material as they graded the learning material very good or good. The results are depicted in Figure 1.
When they were asked what learning material they would add, the most frequently they would add more exercises, video content or examples of previous exams.

Since all software can cause problems when used, the survey investigated if students found any bugs or problems while using Moodle. The majority, about 83%, did not face any problems and only 17% had problems when using Moodle. The most frequent problems include slow response in case a lot of users are using Moodle, problems with opening PDF files in Mozilla Firefox and rare connection problems.

Since Moodle is localized into Slovenian language, this viewpoint was also investigated. All of the participating students were satisfied with localization.

Finally, we asked students about their opinion on e-learning and Moodle. The thing they like the most about Moodle is the fact that they can access learning material and exercises from anywhere and that the learning material is located in one place. A positive side of Moodle resp. an e-learning system is that they are informed about almost everything through e-mail. Overall the students’ opinion on e-learning is positive and they observe it as very interesting possibility for learning.

### 2.2 Situation in Serbia

Serbian survey was conducted on a sample of 130 students of two directions: Theoretical Computer Science, and Business Informatics. Most of them were the first year students, 44%, while the other years of study were relatively equally represented: II year 17%, III year 18%, and IV year 10%. Besides, 11% of students were graduate students. Genderwise, there was 2/3 of male students, and 1/3 of female students, which is generally similar to gender distribution of all students at the Department.

About 94% of students are satisfied with the privacy Moodle as system offers, similar as in Maribor, while those who are not had contradictory reasons for that. Half of the students stated their wish for privacy, so that nobody else can see their grades, while the other half – searching for “transparency of grading”, wished that they are able to see all of the grades, for all of the students!

Considering the general privacy, and possibility for others to see their general personal data (address, city, e-mail, courses student participates …), opinions are divided: 50% of students thinks that “other participants of the course” should be able to see this data, 32% thinks that all registered users of a Moodle system should be able to see those, only 4% thinks that everybody should be able to see it. Yet, at the same time, 15% of students think that nobody should be able to see their private data, which is only half of the percentage in Maribor (27%).

Considering the question of “which data” should be hidden, besides expected answers such as e-mail address and phone number, there is again the same controversy of grades. Namely, some of the students insist on hiding their grades, while the other group insists on transparency of a grading system.
Same as for students from Slovenia, communication methods similar to social networks – forums, chats, blogs, and similar, are not used too much. For example, 82% of students do not use forums, 77% of them do not use blogs, and 74% do not use chat. It is interesting to notice that students from Novi Sad do not use communication possibilities rather equally each, while students from Maribor make a distinction, and do not use blog “at all”, while moderately “do not use” forum.

Reasons for such a low level of usage of communication are different. Most often mentioned are: “no time”, “no need”, but very often “I didn’t know that exists”! For those who do use these possibilities, the most frequent reason was “to get needed information about the course”, or similarly “to receive notifications from my lecturers”.

Worth mentioning is also the fact that students distinguished different courses, and recognized that there are those where there is no point in using these types of communication, while there are courses and classes where that is not just obligatory, but very useful.

Considering surveys, great majority of students had a positive opinion. More than 92% of students said that they have no problem filling out the survey of any kind, both anonymous, or not. That minority, who had a problem with surveys, was complaining about something completely different. “Sometimes it’s boring, especially if there is too many surveys”, would be a typical negative answer, while “Anonymous or not, I’m entitled to my opinion, others like it or not!” would be a positive one.

If a survey, forum, or some other Moodle feature would require criticizing the lecturers, students are mostly not afraid of it. About 73% of students are not afraid of possible consequences for stated critics on account of professor, or assistant. Even more important, only around 7% of all participants in the survey stated that they had some previous negative experience with this type of things.

More than 52% of students participated in some kind of teamwork, which is almost twice more than in Maribor. Still, for those who did participate, conclusions are the same “I don’t have a problem with the fact that my colleagues can change my work. On the contrary – we complemented perfectly” would be a typical answer. Moreover, this question provoked the most answers compared with the other questions, praising teamwork as a feature.

Feature of Moodle to take official tests has been investigated further. A bit over 72% of students had that experience, and generally are satisfied with it. A typical answer is that it “shortens the time for grading” and is “clear, efficient, and well organized”. Still, on the other hand, students were complaining about too much pressure this method puts on them, especially with the clock ticking the time till the end of a test. In connection with this question, students also assessed that Moodle tests are not easier for cheating (74%), and should be conducted only in controlled environment, such as computing centre (82%).

Considering the quality of teaching material used in Moodle, Novi Sad was slightly better graded by students then Maribor.

![Figure 2: Grading of material available on Moodle in Novi Sad](image-url)
More than 80% of students considered existing material on Moodle as excellent or very good, while none assessed the material as “very bad”. If we enumerate “excellent” as 5, and “very bad” as 1, an average grade for teaching material in Novi Sad would be 4.09, while in Maribor the average grade would be 3.48, which we also consider as a rather high grade. When asked what teaching material they would add, most of the students answered with “nothing, everything is fine”. Still, if they would decide to add something, answers are mostly of a type “real life examples, more (practical) exercises, links to additional literature, and free software, video contents, or self-testing quizzes”, i.e. pretty much the same stuff as students from Maribor requested. Interesting results provoked a question about “What teaching resources would you delete from Moodle?” More than 99% of students answered with “Nothing! Everything is ok. Nothing is too much, just don’t use it if you don’t like it, someone else might like it.”

Students show very high level of satisfaction with the localization of Moodle to Serbian language (performed officially by some of the members of the Department, and bilateral project). Around 97% of students claimed that they are satisfied with the localization, while their eventual complaints were adopted and introduced into Serbian language pack in Moodle rather fast. Still, relatively high percentage of those who commented with open answers localization, said something like “I don’t know – I use / I’m too used to / I prefer – English version of Moodle”

The next group of questions was about problems with usage of Moodle. Slightly higher number of users had problems in Novi Sad, compared to Maribor – 24% (in Maribor, 17%), which we consider normal, since the most of the problems were of a technical nature. Being a technically better developed country, Slovenian students didn’t have that many problems with slow response and connection problems, as Serbian students did.

The final question was concerned with the personal opinion of students about Moodle and e-learning in general. Common attitude was very positive, with a lot of different explanations: “step into the future”, “learning material is available at all times”, “an escape from boring, traditional teaching methods”, “simpler, easier for students”, “e-learning is very useful, but it can’t completely replace face-to-face teaching”.

There were also some complaints, as we expected, yet very mature and helpful. Those can be summed in the following one: “It’s a great technique, but only if it is used properly. Some professors and assistants think that Moodle itself offers enough, and that they do not have to add too much. So – quality of teaching is questioned because they are disinterested, unconcerned, frivolous, or rash!”

Still, the nicest answer about the application of e-learning in Novi Sad, we find the following “Can’t see any shortcomings, because it offers all that the traditional lecturing does, and more!”

3 Conclusions

In the paper we presented the analysis of a questionnaire conducted among Serbian and Slovenian students investigating usability, privacy, localization and the general opinion of e-learning and Moodle. It is interesting to point out, that students were more than willing to answer the questionnaire, and that we needed less than 10 days to collect the results. In addition, more than 90% of students said that “they have no problem with filling-out these kinds of surveys, anonymously
or not”. We suppose that this enthusiasm comes from good experiences our students have with the addressed Moodle’s features. Even the freshmen feel very comfortable with the system, after just one semester of its usage.

While we are still drawing exact conclusions, and deciding on the impact these results will have on the future usage of Moodle, it is already visible that the opinions are not unique, and that requirements, attitudes, and beliefs of students are rather diverse. Still, while not always being able to formulate precisely their problems and dilemmas, almost all of the students are very willing to present ideas for potential changes in the application of certain features of the system in our practice, and initiatives for upgrading of teaching material and techniques.

Unfortunately, it is noticeable that students are not as prepared and eager as their lecturers to use the elements of social networks in their studies. Forums, chats, blogs, wikis, and other similar elements characterizing Web 2.0, are in high percentage unused by our students. While there is a fairly high percentage of students claiming that “they didn’t know those possibilities exist”, much higher percentage of students simply comment these aspects of the system by saying “I don’t need that!” or “I don’t have enough time for these!”.

Students are generally satisfied with Moodle and the supporting learning material. The main problems which were indentified were some minor problems in the functions of Moodle and issues regarding privacy of user’s profiles which were emphasized by the interviewees. Nevertheless, students are generally aware of the benefits e-learning strategies keep introducing to our teaching practice.

The main problem from the teachers’ perspective is the low percentage of students who use communication capabilities of Moodle.

Additionally, in this paper we tried to stress the potential usability and privacy issues arising when using Moodle from the teachers’ point of view, where data is acquired through a series of interviews. Based on the results of the analysis of all collected data appropriate conclusions were drawn and will be used in future research and teaching practice.

References:


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