Low-cost Rapid Authoring Tool for Moodle Quizzes

Andy Fendall
Wintec
Tristram Street
Hamilton
+6478348800 ext 8645
andy.fendall@wintec.ac.nz

Dileep Rajendran
Wintec
Tristram Street
Hamilton
+648348800 ext 8728
dileep.rajendran@wintec.ac.nz

ABSTRACT
This paper describes the motivation and development of a desktop application developed by the authors called Question Machine (QM). It rapidly creates electronic quizzes that can be imported into Moodle. It is being evaluated by students doing a user-interface design course.

Categories and Subject Descriptors
K.3.1 [**Computers and Education**]: Computer Uses in Education

General Terms
Experimentation

Keywords
E-learning, Moodle, Learning Management Systems, Computer software

1. INTRODUCTION
Moodle is a popular open source Learning Management System. It has a rapidly growing clientele with around 76,400 known registered sites in 232 countries [6].

Online quizzes and tests have many benefits, such as instant marking that saves time for teachers and provides immediate feedback to students. Many agree that prompt feedback to students after an assessment is very beneficial for learning [3, 5]. There has been much effort in finding ways to reduce the time taken for marking assessments

Disadvantages of online testing relate to the need for classrooms with computers, computer anxiety for some users, or issues in monitoring an assessment from a remote location [2].

2. MOTIVATION FOR DEVELOPMENT
Creating quizzes in Moodle can be tedious and time-consuming. There are low cost desktop applications that can create importable Moodle quizzes such as: Hot Potatoes 6, eXe learning and Qedoc Quiz Maker 2.7.1. However the authors found that it required time and experience to learn how to use these applications and decided it is beneficial to provide a tool specifically for Windows that can create quizzes quickly and simply by a novice computer user.

3. QM FEATURES
Question Machine version 1.7.7.3 can be downloaded from the SoftwareMachine.co.nz website. The one click installer is easy-to-use and the fact that it is installed in the User area of the file system ensures that it is not affected by a lack of administrative rights in a corporate environment.

It can create multi-choice single answer, multi-choice multi-answer, matching, true/false, short answer, numerical and cloze question. It is currently the only application that can create cloze questions with the option of providing a short text answer, numerical, or dropdown menu for the gap combinations in one question. Users can have different question types in one quiz and they can be created and edited on one screen.

Images can be easily inserted and resized in questions. Spell-checking and quiz printing options are also included.

Newer versions are automatically detected when the application is run, and the user just clicks 'OK' to have an immediately update.

Question Machine was first available at the end of 2010 and has been downloaded approximately 741 times in the last year (1/8/2012 to 31/7/2013). Google Analytics [7] gives a visual idea (figure 1) of the countries where it has been downloaded. Question Machine is currently being evaluated by students who have participated in a user interface design course.

4. USAGE

Question Machine was first available at the end of 2010 and has been downloaded approximately 741 times from 1/8/2012 to 31/7/2013 [4]. Google analytics gives a visual idea (figure 1) of the countries where it has been downloaded. QM is currently being evaluated by students who have done a user interface design course.

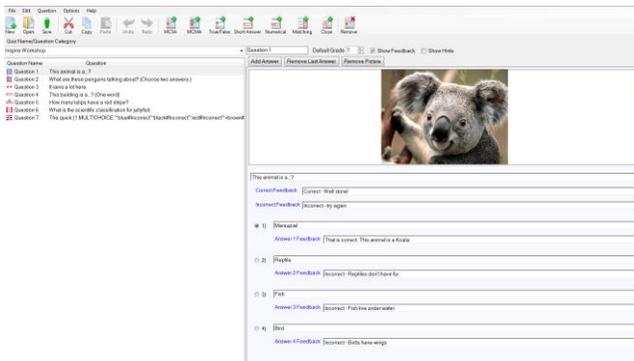**Figure 1: countries where users have downloaded QM from 1/8/2012 to 31/7/2013 (Google Analytics, 2013)**

Figure 2: Screenshot of application User interface

5. CONCLUSION

Moodle is a popular open source LMS. However creating online quizzes can be tedious and time consuming. Question Machine is a desktop application for Windows that easily and rapidly creates quizzes that can be imported into Moodle. Its ease of use and features make it unique. A user evaluation is currently underway that will give more insight into the ease of use and functionality.

REFERENCES

1 Bowman, M., Debray, S. K., and Peterson, L. L. 1993. Reasoning about naming systems. *ACM Trans. Program.*

2 Buchanan, T. (2002). Online Assessment: Desireable or dangerous? Professional Psychology: Research and practice, 33(2), 148-154.

3 Chickering, A. W., & Ehrmann, S. C. (1996, October). Implementing the seven principles. Retrieved March 26, 2012, from American Association for Higher education Bulletin: http://cmapspublic2.ihmc.us/rid=1117493522416_114698828_2576/Implementing%207%20Principles.

4 Fendall, A. (2013). Question Machine. Retrieved April 23, 2013, from Software Machine: http://softwaremachine.co.nz/questionmachine.htm

5 Gibbs, G., & Simpson, C. (2004). Conditions under which assessment support students' learning. Learning and Teaching in higher education, 1(1), 3-31.

6 Moodle Statistics. (2013). Retrieved April 23, 2013, from Moodle: http://moodle.org/stats

7 Google Analytics (2013). Retrieved August 1, 2013, from http://www.google.com/analytics/