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ABOUT THE QUESTION BANK TRANSFER FROM WP COURSEWARE INTO MOODLE LMS

Introduction. Informatization of education involves introduction of various types of information systems (IS) aiming to manage the educational process, educational materials as well as distance learning systems (LMS). Most widely used open-source LMS is Moodle (<https://moodle.org/>).

Main part. WP CourseWare (<https://flyplugins.com/wp-courseware/>) is the IS which implements LMS capabilities in form of plug-in for the common content management system (CMS) WordPress (<https://wordpress.com/>). Unlike WordPress, which is free and open-source, WP CourseWare has been shared as a commercial solution. This disadvantage leads to numbers of tasks concerning question bank transfer from WP CourseWare into open-source LMS, especially, in Moodle.

Aim of this paper is to present experience of authors about question bank transfer from WP CourseWare into Moodle LMS.

Major results, that has been achieved, include:

1. The WP CourseWare question bank export XML-file structure has been studied.
2. An algorithm of conversion of the WP CourseWare question bank export XML file into the Moodle XML import file (https://docs.moodle.org/33/en/Moodle_XML_format) has been developed.
3. The web-application (web-util) that implements above algorithm has been developed by the PHP programming language.

Proposed algorithm has supported an automatic conversion of the following question types into the Moodle XML file format (table 1).

For example, the report about results of processing of the WP CourseWare question bank export XML file using proposed web-util is offered (fig. 1). Finally, developed web-util has been used to transfer the question banks of the 20 courses that has included 580 question presented within 35 quiz in total.

Table 1. Proposed WP CourseWare and Moodle question type equivalence

Question type	WP CourseWare XML	Moodle XML
Multiple choice	Multi	Multichoice
Open (essay)	Open	Essay
Yes / No	True/ False	True / False
File upload	Upload	Essay

Source code of the proposed web-util is available for free in the following GitHub repository: <https://github.com/senteacher/wpcw2moodle>.

QSTN: 49, type: open
question text: Were you graded "satisfactory" by your instructor?
corr. answer:

boolean false

answ. type: small_textarea
image:
quiz_hash(id): wpcwqid_97
INFO:questionkey=48 , quizID=3

---Processing report---

Total processed questions: 49
Multichoice questions: 41
True/False questions: 4
Essay questions: 4
Errors occurred / skipped (converted): 0

Moodle XML has been saved!

a)

b)

Fig. 1. A single question processing report (a) as well as whole file processing report (b) during conversion of the WP CourseWare question bank export XML file into the Moodle XML file format

Conclusion. An experience of authors about question bank transfer from WP CourseWare into Moodle LMS is presented. The web-util for conversion of the WP CourseWare question bank XML file into the Moodle XML file is developed. An example of its practical application is shown.