

The Application of 'WeLearn' in Language Teaching

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Abstract: This article introduces the learning platform 'WeLearn' developed by the a team at the Johannes Kepler University in Linz with special focus on its use in foreign language teaching. In the past years e-learning has developed into a vital part of language learning and teaching. Though the function of the teacher has changed significantly, the importance of the personal contact with the teacher is not to be underestimated. The focal point in this paper will be on how the 'WeLearn' in its current version 2.3.2 can be used for language teaching by way of an example of an advanced level technical English course. Rather than using 'WeLearn' on its own, the course takes the form of blended teaching and learning. Teaching technical English as a foreign language in this sample course includes various means of multimedia, similar to those materials engineering students meet with in their other courses.

Keywords: learning platform, LMS, WeLearn, language teaching, technical English

1 Introduction

In today's increasingly 'online' world offering e-learning courses has become more and more of a requirement for teaching facilities. There is a huge range of available content management systems and learning platforms, and it is by no means an easy task to decide which one to opt for. In this paper the learning platform 'WeLearn' will be discussed from the point of view of its applicability in language teaching.

The article contains five chapters. In the second chapter there is an introduction to the WeLearn platform, followed by a section on the principles of blended learning. Chapter four describes in detail what criteria were used when applying the WeLearn platform in language teaching. The final part of the paper deals with the setting up of the actual course, a sample advanced level English language course for technical English.

2 The WeLearn LMS

WeLearn (Web Environment for Learning) is a web-based Learning Management System (LMS), which can be used as a complement to a traditional form of teaching, for blended learning as well as for e-learning arrangements, which do not foresee physical meetings of participants. This platform was developed by a team of experts at the Research Institute for Information Processing and Microprocessor Technology (FIM) at the Johannes Kepler University in Linz, Austria. This department has a longstanding tradition for doing research in the field of e-learning applications. The WeLearn platform itself is made available to Austrian teaching facilities free of charge, as to date more than 60 institutions including schools, colleges and universities are using it.

The WeLearn system only needs to be installed on a central computer at each institution. It does not matter whether that is a system run by Microsoft Windows, Linux, MAC OS X, BSD, or another UNIX derivative, since WeLearn was implemented as a platform-independent in Java. In case one only wants to take a quick look at WeLearn, the KNOPPIX-based LiveCD is recommended, which allows you to test the system without full installation.

WeLearn as an LMS covers numerous elements and functions which on the one hand, contribute to a successful teaching and learning process, and on the other hand, are vital for system administration. WeLearn was created to be utmost flexible concerning the choice and creation of learning arrangements. Modifications can be made also during the course. For example, course managers with the appropriate level of rights can create new cooperation groups for more dedicated work on certain topics, or may terminate such groups if their work is not satisfactory. Naturally, new course material, extra information, useful links, or exemplary student works may be uploaded at all times. The detailed setup of rights enables the course managers to create different roles, so that e.g. user A who is a participant of the Course X take on the role of a tutor in Course Y.

Not only can learning materials have various formats including .doc, .pdf, .mp3, or others, but also as so-called learning packages which correspond to the IMS CPS standard¹. These learning packages are easily transferable and reusable in other platforms. The courses may include both internal as well as external links to websites and entire home pages. A range of tools such as fora, chats are incorporated to underline both the synchronous as well as asynchronous aspects of the course. Individual objects, like calendars can not only be used within the course, but also for the needs of each user within their personal workspaces. For administrators it is also of importance that WeLearn can be connected to an existing infrastructure. Thus it is possible to couple user administration with an external directory, e.g. an LDAP server or a Microsoft Active Directory. Further details can be found in [4], [6] as well as on the WeLearn Homepage [14].

¹ <http://www.imsglobal.org/content/packaging/index.html>

3 Blended Learning

Using a learning platform such as WeLearn does not mean that traditional teaching methods have to be completely done away with, but rather used in the form of 'blended learning'. 'Blended learning' can be defined as follows: 'an educational formation that integrates elearning techniques including online delivery of materials through web pages, discussion boards and/or email with traditional teaching methods including lectures, in-person discussions, seminars, or tutorials.' [12]. This means that the students will still be attending lectures and practices led by their teachers, but outside the classes they are provided with a multitude of learning possibilities online.

Flash applications, sound files, video files complementing the traditional lectures may be uploaded to be viewed by students outside the classes, possibly followed by home assignments. Examples of teaching materials include combinations of technology-based materials and traditional print materials. The teacher has to assume a variety of roles both online and in class.

4 WeLearn for Language Teaching

WeLearn has been created domain independent, which means that the platform can be used for communicating of content from various areas. General evaluation criteria for learning platforms as well as link collections to evaluation studies have been published in numerous sources, e.g. [1] and [2], and will not further be dealt with. The following section contains the criteria used for the evaluation of WeLearn used for language teaching as well as the result of the evaluation:

1 Learning Material

1.1 Supporting Various Media (word documents, images, video files, sound files)

Any form of already existing material can be applied within the platform. This provides a smooth transition from conventional teaching to a distance-teaching form. All usual forms of multimedia format are supported on condition that the client has the appropriate viewer. Conversely, even the specific viewer programs may be provided by the platform for downloading assuming this is allowed by copyright law.

1.2 Supporting Standardized Learning Material in SCORM² Format so that the Content can be Reused in Other Systems [7]

WeLearn supports parts of the SCORM standard: IMS CPS for the structuring of content, and IEEE LOM³ Standard for annotating materials with metadata. The learning packages may be reused in other platforms, as well.

2 Communication Facilities

2.1 Asynchronous Communication Support

For asynchronous communication fora and infoboards are available. This makes time-independent communication between teacher and student, or among students possible.

2.2 Synchronous Communication Support

The messageboard presents a more or less synchronous version of communication, which takes the form of a chat.

2.3 Live (synchronous) Communication (audio and video)

This option is not supported by the platform itself; if need arises, it may be realized with external tools.

3 Internationalization

3.1 The Platform Itself

The platform itself is created exclusively in English, and there is no option for changing the language.

3.2 Content

Learning content includes the uploaded material as well as internal system objects. Most special characters may be used within these, as the platform provides unicode support for these objects.

4 User Tracking

4.1 On a General Level

WeLearn supports different statistics that may provide information on the users of the system. These analysis are available solely to the system administrator.

4.2 On Content and User Level

Protocol data of system users are available only in aggregated form, so that no individual user can be backtracked. Analysis includes how often an object was used, how frequently specific fora or messages were viewed, or items in learning

² <http://www.adlnet.gov/scorm/>

³ <http://ltsc.ieee.org/wg12/>

materials, for that matter. These data heads to helpful conclusions concerning the quality of the materials as well as the degree of active participation of users: the most popular threads in fora, most popular document in learning package, most active posters, etc.

5 (Self) Assessments

5.1 Creating Assessments within the Platform

WeLearn does not support authoring any learning material within the platform. It does not support the creation of assessments within the platform either. The principle is to differentiate between the surrounding platform and the contents.

5.2 Including Externally Created Interactive Assessments

WeLearn is compatible with many tools which can be used for creating assessments, for example Hot Potatoes⁴ or jClic⁵. The supported types of questions within these tools include Yes/No, Multiple Choice, fill-in-blank, etc. and depend exclusively on the tools used, not on WeLearn. The export format for tests best used is HTML.

5.3 Existence of Gradebooks

There is no central gradebook in this platform in which the advancement of the students would be registered. Results can thus only be accessed through external assessments made available within the platform, e.g. CGI-scripts.

6 Collaboration

In WeLearn an unlimited number of groups may be set up which would enable the students' controlled collaboration. The options include group calendars, group fora, etc. and free exchange of various course relevant pieces of information.

7 Homework Submission

7.1 General Possibilities for Homework Submission in the Platform

A further option within WeLearn is the creation of 'homework submission folders'. All students would in this case be able to see who has already submitted their assignments, but not the content. Each user can only manage and change their own submissions. This way it is easy to handle assignments including translations or gap-fill exercises. If we follow the principle of different roles within the platform, then a student tutor could be granted the right to take a look at the submitted assignments, and possibly give the teacher ideas for assessment or marking of a specific work.

⁴ <http://hotpot.uvic.ca/>

⁵ <http://clic.eduhi.at/>

7.2 Time Limitations

Time limitations for submissions are not supported in WeLearn. The permission for submission can be only manually set via the rights management of the platform. But it is logged at which time the document was uploaded.

8 Notifications on Certain Events

In version 2.3.2 of the platform there is no notification support. In an internal prototype of the platform, which is available as beta on demand, notifications on various events can be installed. For example, emails or SMS can be triggered, as soon as possibly interesting messages are authored within a forum, or when all students have finally submitted their homework, etc.

9 Inclusion of Interactive Dictionaries

This option is not available in the platform. If needed, then it ought to be realized with links to (free) dictionaries in the web.

10 Possibility for PlugIns (e. g. online translation, etc.)

WeLearn does not support individual, proprietary PlugIns.

5 Setting up an English Course

5.1 Course Contents

The sample course created for paper includes a lesson's worth of material on the topic 'Satellites' for an advanced level group. The following learning materials are comprised in this CPS package: a pdf file containing reading material entitled 'Satellites – useful and menacing', followed by vocabulary and comprehension exercises, also in pdf format. These two sections would most likely be done in a class environment, with the teacher acting as monitor and task facilitator. Further interactive tasks included in this CPS are a gap-fill task, and a listening exercises followed by some true/false tasks. A flash movie connected to the lesson's topic has been added to ensure the full comprehension of the subject matter.

5.2 Ideas on Learning Material

Before creating an e-learning course it is crucial that the course manager decide upon which already existing learning materials could be made use of. Often a considerable part of the available material can be successfully integrated into an e-

learning course, while the rest needs to be modified, and expanded with interactive multimedia elements to add an explorative edge to the learning process.

Further more, it needs to be considered at which sections of the course to include a form of interactive self-assessment, using tools already mentioned in a previous section.

The last step would be to structure the collected and rewritten learning material. The tool of choice for this task would be the IMS CPS format so that loosely connected and/or independent materials become a whole.

5.3 First Steps in WeLearn

Many different learning scenarios and arrangements exist [5]. The following is only one way of implementing the requirements in the platform.

The first step for the planned scenario in WeLearn is for the WeLearn-administrator to set up the necessary groups and the root course folder. All these steps can be taken completed by the course manager / teacher. In this example the authors have created the course 'English 2 (#009.212)'. The number is optional, and can e.g. uniquely identify the course. Further, there have to be three roles within the course: that of the course manager, of the tutors who are responsible for the primary correction of home assignments, and that of the students. Thus three WeLearn groups ought to be set up for these three roles. The actual users then are classified into one or more of these groups.

After the course manager had been given the 'empty' course folder the actual setting up of the arrangement begins. The learning material itself was structured using the jCAPT editor (see 5.5), then the resulting CPS package was uploaded into WeLearn and applied. Image 1 presents a view of the learning package.

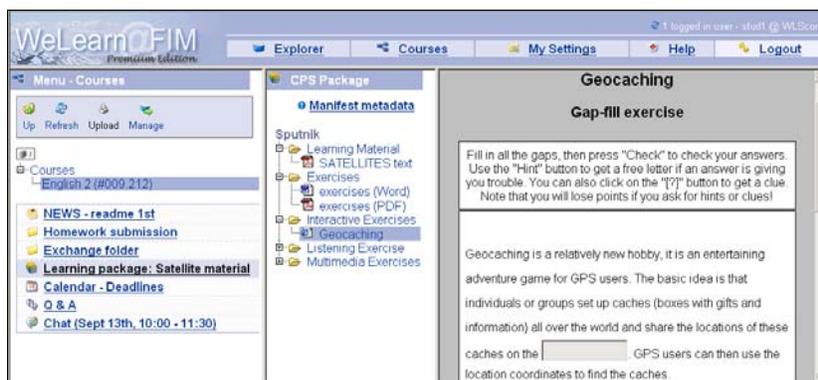


Figure 1

An opened learning package in the WeLearn platform

Following this a calendar object was created within the course which contains vital course dates, deadlines, exam dates, etc. The forum 'Q&A' enables discussions concerning various topics. In this example separate topics were set up for the various home assignments and exam preparations, as well as general organizational issues and questions related to the course material. In this way students can pose questions to tutors and the course manager, and receive answers online (see Figure 2).

The object named 'Chat' indicates that there is a chat section, too. Since the teaching process takes the form of 'blended learning' it is possible to replace the physical classroom with a chat session held at the same time as the class would be held. A blackboard under the name 'NEWS - readme 1st' ought to be read by the students first so that they be informed about the news concerning the course.

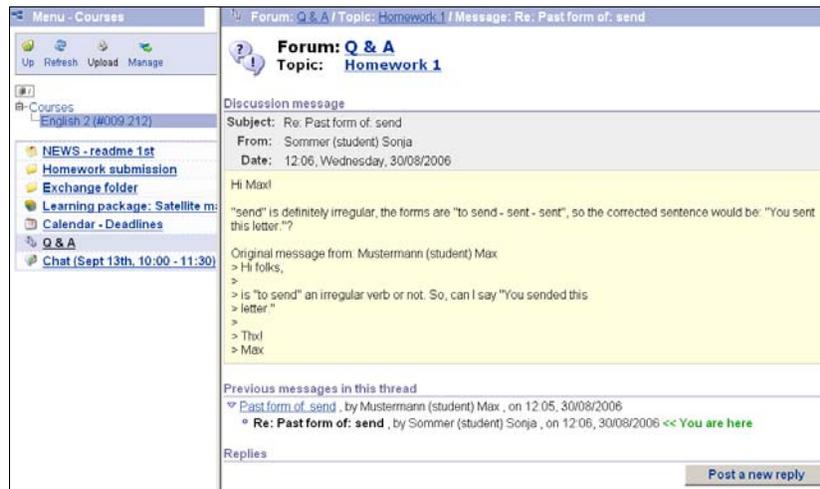


Figure 2
Message view within a WeLearn forum

5.4 Advanced Topics

5.4.1 Exchange Folder

The 'Exchange folder' enables exchange of data among all students. In this folder students can upload various course-specific material and make it available to their fellow students. So each member of the course has read and write permissions.

5.4.2 Submission Folder

A separate folder for assignments must be set up, where students can upload their works. The rights of this folder ought to be carefully defined, e.g. whether a student may see who else has already uploaded their work, whether they may actually open and read other assignments, but not change anything within the file. The teacher may also ask the students to read each other's works and give their fellow students feedback and ideas to improve their works. All uploads are logged with date and username, thus it is easy to check whether a student has handed in his or her assignment and whether it was within the given deadline. This option provides the teacher with the possibility to use student tutors within the course. What exactly the role of a tutor is varies from course to course, teacher to teacher therefore the tutor's rights within the account are set by the teacher. For example, the tutor is responsible for making sure all assignments are uploaded on time by the students, thus he has reading rights to that specific folder, yet does not have writing rights, the correcting and marking of the assignments are done by the teacher himself. Figure 3 shows the typical setting of rights for a submission folder.



Figure 3
Typical rights on a submission folder

5.5 Working Offline

It is assumed that the language learner does not always and everywhere have an internet connection, thus some learning material is also provided outside the learning platform. In order to view those materials only a browser is needed, but not the learning platform. The WeLearn team developed 'jCAPT'⁶, a tool for creating an IMS CPS compatible learning package for WeLearn, and as a second

⁶ <http://jCAPT.fim.uni-linz.ac.at>

step, create its offline-version as well. This exported material can then for example be burnt on a CD and handed out to the students. The sample course would look as shown in Figure 4 after an offline-conversion.

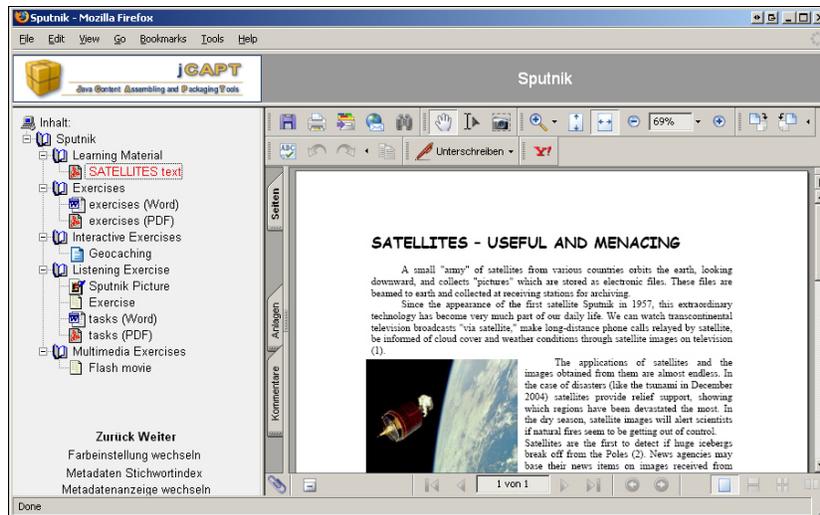


Figure 4

Offline version of the CPS package outside a learning platform

We can directly create the static versions of fora, calendars and other objects directly from WeLearn by marking the objects in the explorer modul, and clicking on 'Export'. Materialized and offline versions of the objects are created on-the-fly, zipped and transmitted to the client.

Conclusions

Based on this trial language course described in this article it is the authors' belief that the learning platform 'WeLearn' could successfully be implemented for language teaching purposes. Whether this be done as an inclusively online course, or in the form of blended learning is an issue to be decided based on the immediate needs of the students participating in the language course. The need arose to supply the students of the Polytechnical Engineering College with additional material for language learning and practicing purposes outside the regular classes. Language material created using the 'WeLearn' learning platform enables students to study on their own, and the teacher to take a step back in the students' learning process.

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