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Edoo: An Online Match-making Portal for Educational Content Production

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Abstract

Although masses of electronic learning materials are being regularly created for e-learning purposes, there is still difficult for a teacher to find a suitable material for a particular teaching situation. Instead of adapting lessons to suit the available learning content, the teachers should actively adjust the learning content itself to make it suit their needs for use in the class. Despite having good ideas, not all teachers are capable of creating an attractive learning content, or even just customising it due to the lack of programming knowledge and inadequate ICT-usage skills. Our goal is to bring together two distinct communities, teachers and programmers, to work together, share ideas, and brainstorm, with the common goal to benefit from this mashing in providing useful materials for enhancing learning experience. The portal is aimed as a meeting place for teachers with innovative ideas for new e-content and technology buffs wishing to contribute their knowledge to common good.

Keywords: e-learning, knowledge exchange, online knowledge services, gamification

1 Introduction

In the recent years, lots of educational content has been adopted for use with e-learning environments such as Moodle. To support such work, many standards have been developed for easier exchange of content and to bust reusability (Kavčič, 2009). There were also many attempts on collecting, categorising and providing educational materials on combined online portals (e.g. Slovenian Education Network SIO¹ or Learning Resource Exchange for Schools²).

High quality content is usually created by professional content providers and made available to educators (i.e. teachers and parents) to use in class or for remote education. Some ICT competent teachers prepare their own electronic teaching material to use in class. Although having innovative ideas about incorporating e-learning material in classes, a number of teachers lack proficiency in ICT skills and are unable to create new or customize the existing material in order to make it more interesting, informational and appealing to students.

2 Related Work and Discussion

An important question, which has not yet been properly addressed, is the connection of content providers and users of this content. This is often a one-way process, where the content is generated on one side, pushed to the providing services, and used on the other side. The users usually do not have an option on collaborating in the content development process, nor to provide a relevant feedback. The idea of such online aggregation services is to collect and share learning materials; however, it is lacking the interaction between end users and content producers.

We present the idea of bringing together the producers and users of the educational content in order to work together and share ideas, thus bridging the gap between these two distinct communities. Both communities can benefit from such collaboration, leading to high quality and didactically sound materials. Hence, we have founded a new portal called Edoos that will act as a meeting place for these two communities. The first step is to attain highly motivated schoolteachers and connect them with Computer Science students that are developing educational applications as part of their regular seminar work. Currently, we focus mostly on educational games, since gamification is well known to facilitate the learning experience (Kapp, 2012) and there is also higher student motivation in game development. Successful examples of using gamification in class (Nicholson, 2013) are our additional inspiration.

As far as we know, only Edmodo (Edmodo, 2013), a social learning platform for teachers, students, and parents, uses a similar approach trying to connect educators directly with application developers through their Teacher-Developer Exchange. Their goal is to create the applications that are most needed in class.

3 Contributions

¹ Slovenian Education Network SIO: <http://www.sio.si/>

² Learning Resource Exchange (LRE) for Schools: <http://fire.eun.org/>

Potential research contributions are the following:

- A novel approach to cooperative production of learning materials. Connecting the end users of the learning materials (i.e. teachers) with producers of such materials results in a better design and quality of learning materials. The produced material is used in class and instantly improved through the immediate feedback from the teachers.
- Applying gamification principles to learning materials. Creating materials with game-like scenarios makes learning more interesting and appealing to students.
- Bootstrapping the online community for cooperation between producers and users of learning materials.

4 Research Questions

Possible research questions arising from the presented work:

- Will such collaboration improve the quality of learning materials? There is a question whether such collaboration can result in learning materials of higher quality and better acceptance of materials by students.
- Will such collaboration encourage the production of additional learning materials? Although the proposed community has the ability to affect the produced materials, there is always an additional effort involved in time-consuming activities of product development, including iterating product evaluation during the production phase, demanding personal initiative.
- How to encourage the collaboration of both communities (producers and users of learning materials)? The relevant features of the portal have to be identified that would ease and stimulate further collaboration and would not distract or limit users in exchanging ideas. The integration of gamification attributes as a stimulating factor for creation of e-learning materials has to be investigated.
- How to stimulate the users of learning materials to be actively involved in the development process? The attracting factors for constant active participation of users have to be identified.
- The question of prompt testing also arises and will be addressed in our further studies. We want to bring testers into the creation process as soon as possible for prompt feedback and corrective measures to be applied early in the development process.

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