Re-using e-teaching materials – Advanced learning blocks approach

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ABSTRACT

A new role of a teacher for the 21st century is here. As stated in numerous papers, this new role means that teachers at all stages of education should be oriented more towards guiding the learner through the learning process. In this process support of information and communication technology (ICT) plays a significant role. More and more e-resources are available to be used at the learning process. But analyzing these resources we often find that their authors do not use all of the opportunities offered by new technologies. One of their most significant drawback is the fact that authors too often forgot (or neglect the fact) these resources are meant to be "delivered" to the learners through teachers. Namely all too often e-resources are monolithic blocks (or at least their main part is). This demands that the educator takes them as a whole, precisely in the order they were written in. Is that really necessary? Do all educators need the same form of resources, do they want to use them in the same order, and do they want their learners to see the same examples, do the same tasks? Why not use the possibilities that new technologies offer and at the very least give the educator the chance to adapt the materials to their own and their learner's needs. Recent studies have shown that teachers need e-learning content that they can easily adapt and reuse for their own purposes. This means that lessons should be made out of small learning blocks or, as they are called, "knowledge objects" / "learning blocks".
A new concept of how to create really useful e-learning content was evolved in Slovenia; namely, by "putting the teacher back into the game". The selection of proper technologies and tools for managing e-learning content and the establishment of a user-friendly and easy-to-use environment for creating and modifying e-learning content, are essential to ensure basic support and popularization of e-learning.
In this paper, we will present new ideas with proofs of concepts of "modular, really interactive e-content" build by using open-source solutions and open standards. You can see some preliminary results at http://www.nauk.si. The examples are mostly meant for primary and secondary school teachers. But as these materials are mostly developed as "a proof of a concept" we think the presentation of the ideas can be valuable for the participants of this conference, too.

Keywords:

e-learning content, educational content preparation, knowledge extraction, ICT in learning