

**GORBACHEV N.N., MALCHENKO S.N., MALCHENKO N.S., KRIVTSOV V.N.
METHODS OF EDUCATIONAL CONTENT MANAGEMENT FOR SUSTAINABLE
DEVELOPMENT OF THE UNIVERSITY**

*Gorbachev N.N., Malchenko S.N., Malchenko N.S., Krivtsov V.N.,
Minsk Branch of MESI
<http://www.mfmesi.ru>
E-mail: minpred@mesi.ru*

В рамках НИР МЭСИ «Обеспечение зарубежных точек доступа к информационно-знаниевой среде МЭСИ качественным видеоконтентом» была разработана методика актуализации мультимедийных (видео) учебных материалов как элементов электронных курсов. В статье приводятся некоторые результаты научно-исследовательской работы.

Introduction. UNECE strategy for education for sustainable development (ESD) stipulates that “educational process should permeate learning programmes at all levels, including vocational education, training for educators, and continuing education for professionals and decision makers” [1, pp. 5-6]. Competence approach to educational content management allows for preparation of various courses for the mentioned levels, informational part of which should be regularly updated. Current toolsets of knowledge management systems (KMS) allows for rapid actualization of the text part, however multimedia part, which became extremely important especially for training, is much rarely updated. The present article was prepared in course of execution of scientific research work “Providing the quality video content to foreign access point to informational and knowledge space of MESI” financed with internal grant of MESI. In the result of research, basing on the results of analysis of the best practices, methods of educational content management were suggested. These methods are basing on competence approach, permanent updating of educational content applying KMS collaboration toolsets and allow for realization of ESD strategy in part of life-long education and supplying the quality content for all levels of education.

Application of competence approach to educational content management. According to current order, content of university courses should meet the requirements of State Educational Standards (GOS), which are rarely updated. Additionally, it should correspond with the demands of customers (students) and labor market (employ-

ers) in part of competences and skills achieved in the result of training. Increasing volume of university knowledge, complication of knowledge handling methods, variability of required competences define necessity of new processing models and tools within KMS. Most frequently applied approaches to knowledge management are:

- projects-oriented knowledge management, focused on knowledge usage by KMS users for settling the applied problem situations for fulfilling the project tasks;

- distributed resources knowledge management, providing the basic system for production and distribution of knowledge for application within the university basing on resources of separate divisions.

It is suggested to unify these approaches within the dual knowledge management approach, integrating educational content into a single university knowledge environment using expandable mathematical model of university knowledge domain in a form of ontology. Task of content actualization expenses decreasing shall be settled basing on expansion of KMS technological functional by developing the collaboration tools that integrate the elements of informational environment and direct the KMS users to instant actualization and development of educational content (see Figure 1).

Application of various authors to content preparation provides flexibility in courses combination for personification of training the necessary skills and competences. This also settles the issue of alternative lectures presented by multiple lecturers.

Conclusions. Implementation of competence approach to educational content management as part of method of training results modeling, provides the flexibility to university educational programmes as required in ESD strategy. However, multimedia content requests additional decomposition for appropriate actualization. Application of content metadata generated with university knowledge domain model in a form of ontology allows for constructing the multi-level thematic electronic courses as complex of “personal skills required to a specialist for guaranteed effective professional level in real conditions and with appropriate quality” [2].

Realization of such object-oriented method to managing the multimedia content, its thematic decomposition provide permanent updating using collaborative toolsets. Facilities of suggested dual knowledge management approach are currently being executing in informational-

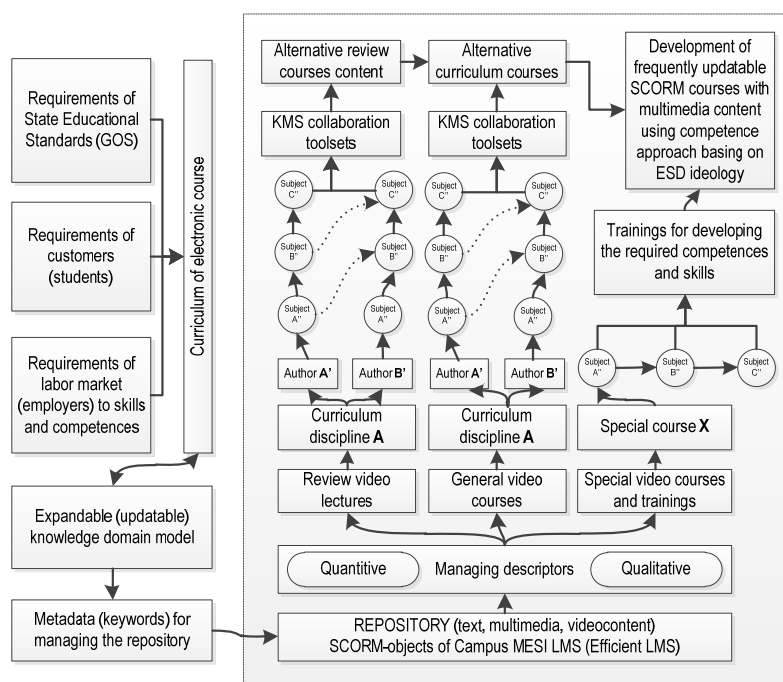


Figure 1. Suggested architecture of educational content management system within university KMS basing on ESD ideology

knowledge space of MESI allowing for task-oriented development of educational content. Application of university knowledge domain as source of content metadata for objects stored in educational repository results improvement of educational content management and full-featured embodiment of competence approach to knowledge management basing on ESD strategy.

References:

1. UNECE strategy for education for sustainable development // URL: <http://www.unece.org/env/documents/2005/cep/ac.13/cep.ac.13.2005.3.rev.1.e.pdf> (visited: 08.02.2011)
2. A.V. Stegantsev. Competence approach: from professional education to training the professionals // URL: http://www.stiogantsev.ru/st/biz_komp-podhod.html (visited: 08.02.2011)