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The Conference Chair: Professor Dragan Domazet, rector of BMU

The annual conference eLearning 2015 is an international forum for researchers, developers and educators to discuss about technology, innovation and best practices in e-learning, distance education and new learning opportunities. This year, the conference will pay special attention to Design and development of online courses, Use of learning objects, Mobile learning technology, Personalized learning, Gamification of learning, Massive open online courses.

The Scope of the Conference

The scope of the conference includes the following topics:

Tehnical Concepts

- Learning Management Systems (LMS)
- Virtual Learning Environments (VLEs)
- Mobile learning technology
- Personal Learning Environments
- Infrastructure of E-Learning Environments
- Authoring tools
- Social networks and Web 2.0 technologies
- Security and Data Protection
- Learning objects
- Standards and Interoperability
- Semantic Web
- Learning Analytics
- Mobile Learning Analytics
- Learning Networks

Instructional Design

- Design and development of online courses
- Adaptability
- Experiential Learning
- Simulation
- Gasification of learning
- Content Development
- Organizational strategy
- E-Portfolios
- Curriculum development
- Quality assurance in e-Learning
- Assessment in e-learning
- Effective Learning Strategies

Pedagogical and Psychological Aspects of e-Learning

Pedagogical models and strategies

Pedagogical and Psychological Requirements for e-Learning Systems

Learning/Teaching Methodologies and Assessment

Learning Theories, Teaching Methods and E-Learning

Implementing Pedagogical Methods in e-Learning Systems

Didactical Issues of e-Learning

Personalized e-Learning

Motivation and e-Learning

E-Teacher Skills and Competences

Educating the Educators

Brain, Lifestyle & Cognition

Information Skills

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Language

The official language of the eLearning-2015 Conference is English. English will be used for all printed materials, presentations and discussion.

DEVELOPMENT OF STANDARDS IN E-LEARNING

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Abstract: This paper presents the systematic analysis and international standardization overview in the field of e-learning, with development and planning activities, especially ISO/IEC JTC 1 SC 36 "Information Technology in Education ...", and some aspects and examples of standards in Massive online open courses.

Keywords: E-learning, International standardization, OER, MOOC

1. INTRODUCTION

E-learning is being standardized by the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) - ISO / IEC, [1]. Standardization of e-learning is preceded by development and research results from other institutions, such as, for example: AICC, IMS, DCMI, ADL-SCORM, ALIC, IEEE LTSC, ADRIADNE, CEN/ISSS WS-LT, CEN/ISSS CDFS, CEN/ISSS WS on Privacy, W3C etc ... [2]. JTC 1 / SC 36 subcommittee for e-learning functions within the First unified technical committee (JTC1 ISO / IEC). The organizational structure of this subcommittee consists of seven working groups (WG) and the Advisory Group (AG), as a special working group (SWG). In recent years, the OER (Open Educational Resources) and MOOC (Massive Open Online Learning) stand out among the important concepts.

In ISO/IEC international classification and standardization, education and training are classified as general functional disciplines (ICS = 03.180 and 03.100), but E-learning as well as within the multidisciplinary information technologies (ICS = 35). In that way developed and published standards for e-learning were classified by ISO/IEC into two fields, with appropriate subfields:

1) information technologies - ICS = 35 (subfields: 35.020 general on IT and dictionaries, as well as the subfield applications of IT - 35.240, or in more detail, and for the needs of e-learning - 35.240.99),
2) services, company organization, management, quality and administration - ICS = 03 (subfields: 03.180 - *Education*, as well as 03.100 - *organization and management of the company* and on the next level of standardization 03.100.30 - *e-learning from the aspects and within the framework of human resource management*) [2].

Development of standards in the field of e-learning is presented in this paper, both on the global (ISO) and the local (SRPS) level. A review of developed and withdrawn standards is given for the two levels.

A particular part of the work refers to the open educational resources (OER). According to OER Commons (oercommons.org) "Open Educational Resources are teaching and learning materials that you may freely use and reuse, without charge. OER often have a Creative Commons or GNU license that state specifically how the material may be used, reused, adapted, and shared."

There are a large number of studies dealing with the standardization of e-learning as well as the open educational resources.

The research presented in [3] deals with standards in e-learning. Also, the experiences at the local level in Germany about the development and use of virtual learning environments are presented too as well as the different electronic learning programs in Germany in order to acquire the necessary qualifications for examinations and assessment [3]

The standardization is presented in [4] in order to enable interoperability among systems for the Learning Management. The paper provides an overview of standards in the field of e-learning, with a special focus on educational design and content package.

The research in [5] also provides an overview of standards in the field of E-learning along with the process of standards development and lifecycle of standard.

In relation to the research shown, similarity lies in the domain of e-learning under which standards are being analyzed. The differences relate to the specificity of the local level, which is Serbia in this case. In addition, a

