

Editorial

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Welcome to the Bulletin of the IEEE Technical Committee on Learning Technology, Volume 17, Number 1-2, April 2015 issue. This special issue discusses the current learning technology challenges towards an open discovery space for education. The papers presented in this issue are a collaboration among the partners of an important European project, called Open Discovery Space (<http://portal.opendiscoveryspace.eu/>). This project aims to serve as an accelerator of the sharing, adoption, usage, and re-purposing of existing educational repositories, by involving thousands of European schools in innovative teaching and learning practices through the effective use of eLearning resources. During this project, lots of technical approaches were applied for collecting, searching, exposing, creating and using a large number of eLearning resources.

The first paper in this issue presents a web-based collaborative learning environment, COLearn, that supports the specification of collaborative learning workflows, their deployment and enactment. It addresses major challenges in modern learning infrastructures to enable contextualization, social constructivism and knowledge-pull. It also offers a shell, easily integrated on top of existing open learning infrastructures (such as LMSs and OER repositories) to enrich their capabilities by offering functionality to design rich collaborative learning activities. COLearn employs an intuitive graphical representation exploiting the Business Process Modeling Notation standard. As an internal representation and interoperability model it uses IMS Learning Design thus offering effective sharing and remixing of learning designs.

In the second paper, the authors describe the current landscape of searching learning resources and show the multiple challenges teachers meet. The search tool of the Open Discovery Space project is presented in this paper. This tool combines several features to answer these issues, including a significant amount of resources (almost one million at the time of writing). The authors also described several issues they faced during the development of search tool along with their proposed approaches.

The third paper presented a vocabulary bank implemented during the Open Discovery Space project lifetime. The authors implemented it as a single point of reference for all authoritative sets of terms, concepts and named entities as well as the network of relations between them, using an innovative, semantic web approach. Their work also provides an overview of the software requirements and the selected implementation approach for developing the vocabulary bank.

In the forth paper, the authors present the aggregation workflow followed in such open educational environment. They describe the procedure in which a large number of eLearning metadata were collected from several learning repositories in the Open Discovery Space project. The collected metadata were later processed, cleaned, evaluated and finally imported into the learning portal. The applied workflow described could be considered as a generic approach for covering most of the learning object's metadata processing needs.

The fifth paper proposes the usage of an integrated search Moodle in the Open Discovery Space project. The authors describe a method for searching and exposing learning objects from Moodle. Factors which will be taken into consideration include the ease of use from course creators and Moodle administrators point of view, as well as how well the generated metadata match user requests and the impact of the harvesting process to the Moodle installation. The paper also suggests the integrated ODS OAI-PMH Moodle block plugin that automatically checks all available learning objects inside each Moodle course.

We sincerely hope that the issue helps in keeping you abreast of the current research and developments in Learning Technology. We also would like to take the opportunity to invite you to contribute your own work to the Bulletin of the IEEE Technical Committee on Learning Technology if you are involved in research and/or in the implementation of any aspect of advanced learning technology. For more details, please refer to the author guidelines at <http://www.ieeetclt.org/content/authors-guidelines>.