

# QUESTION AND TEST INTEROPERABILITY – ORGANIZATION, REUSE AND MANAGEMENT OF ASSESSMENTS' CONTENTS

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## **Abstract**

*One of the modern trends in nowadays e-learning technologies and system development is toward creation of standards-based distributed computing applications. The presented paper examines ways of creation, organization, packaging, storage management and usage of e-learning courseware, regarding these modern e-learning standards and technologies. It puts a special accent towards development and management of assessment contents. After a short overview and comparison of the standards and ways of their application, the article classifies LMS and platforms regarding their interoperability facilities, namely exchange of shareable and packaged learning contents, especially for testing. Here, we analyze as well important characters of system interoperability and propose a detailed classification and notation. Finally, as a case study, we describe our framework based on the recent IMS standards and developed within the ARCADE (Architecture for Reusable Courseware Authoring and DELivery) e-learning platform, and show directions for improving its interoperability abilities with other standard-based LMS. Special attention is put onto creation of an authoring tool for creating packaged and sharable assessments contents.*

## **Keywords**

ARCADE, interoperability, classification, i14y, reusability, usability, exchange, learning management systems, data exchange, e-learning, system interoperation, learning content