FEDERATED REPOSITORY FOR REUSABILITY OF DIFFERENT STANDARDS LEARNING OBJECTS

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CHAPTER 1

INTRODUCTION

With the accumulative increasing in the computer networks and their using in many fields, such as, information systems, management systems and learning systems. The need for the reusing and sharing of the resources appeared as a solution that enable the users of these systems to reuse and share existing resources in building, testing and searching in their systems. The educational institutes nowadays are depending mainly on the e-learning and its applications in the building of learning systems. The e-learning is appearing and growing with appearing of the computer and communications technology. In addition, many of the modern learning systems built their resources on the using of those new technologies in storing and retrieving the learning materials (learning objects). As a result, there must be some techniques to search, use and share those learning objects. One of the most useful techniques is the using of what is called "metadata". The metadata is "data that describes data", such as an xml file describing the content of a flash, video, picture, presentation file or even mixed of them. Here in this research we focus on how to reuse and share the learning resources through using their metadata. We use the metadata of learning resources in the search about them. The metadata were built usually using either resource description format (RDF) schema or extensible markup language (XML) schema. There were many standards that are built to define the elements of the metadata files to describe the learning objects, such as Dublin Core (DC) metadata standard [1-5], Institute of Electrical and Electronics Engineers- Learning Object Metadata (IEEE-LOM) metadata standard [6], machine readable cataloguing (MARC) [7], Metadata Object Description Schema (MODS) [8] and SCORM metadata [9].