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November 1, 2011

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SUBJECT: **USDE REQUEST COMMENT ON TECH STANDARDS (REFERRAL 11-1053)**

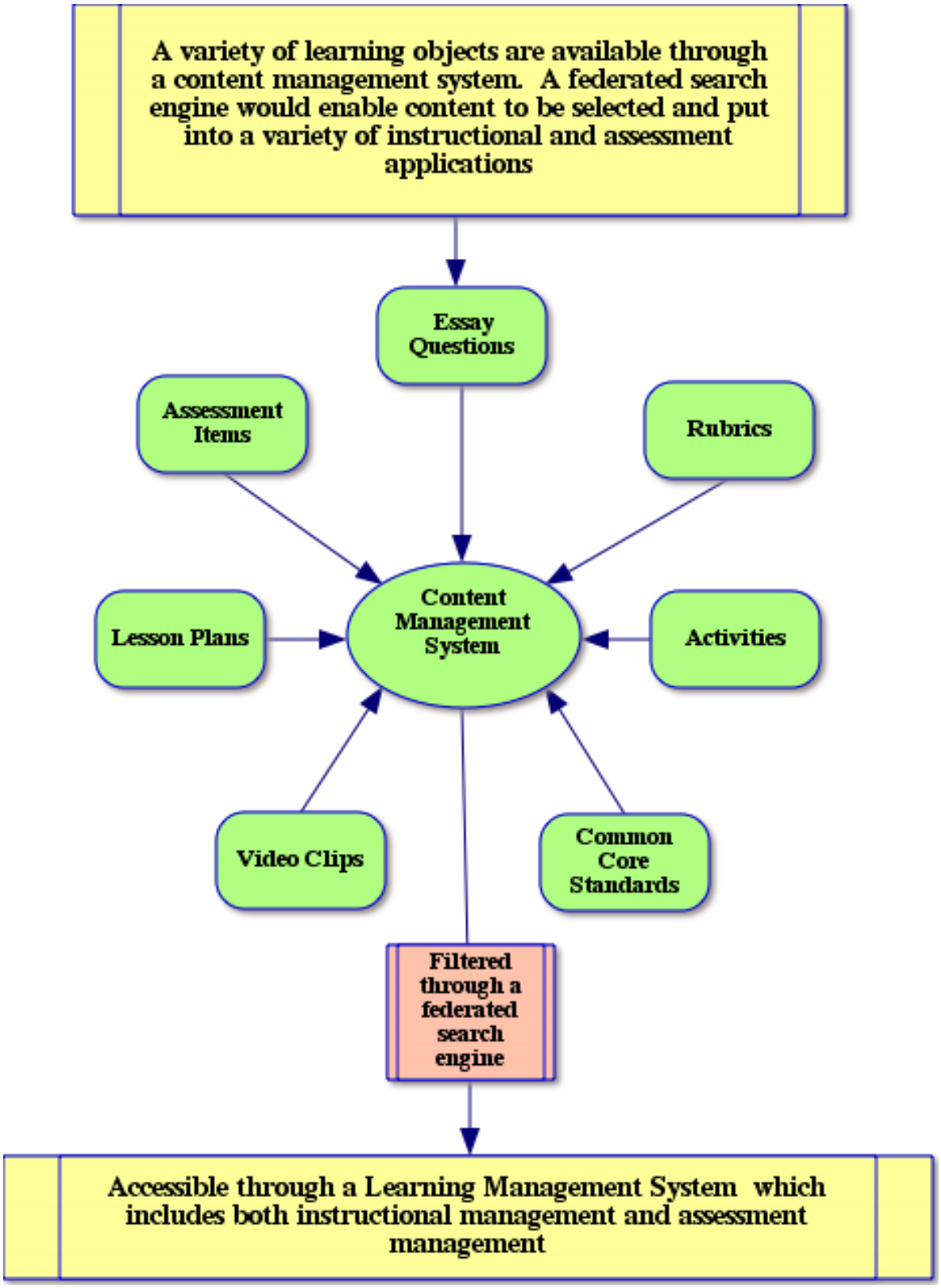
After reviewing the document "Educational Assessment Technology Standards" submitted by the U.S. Department of Education, the following comments and recommendations are suggested.

The goal of the standards initiative is to ensure that various instructional and assessment applications can exchange K12 content and data among both cloud-based and locally hosted services. Traditionally, the case for interoperability, the seamless sharing of data, content and services among systems or applications, has not been compelling in the K-12 education marketplace. One reason is because the cost of implementing comprehensive, industry-wide standards has been rarely supported by the end users who did not have the applications to connect. School districts did not insist on only procuring applications that supported standards such as the School Interoperability Framework (SIF) and this support is necessary for success of data integration. Therefore, the vendors chose to focus on proprietary designs solving the individual needs of their customers, maximized their own profitability and did not allow for easy integration with systems from other vendors.

Because of the rapid development of both mobile devices and cloud-based services and the movement to personalize learning for our students by developing a comprehensive learning management system, the need for systems to easily exchange data and content is essential. This document is the first step in

developing an assessment system that will easily connect to both student information systems and learning management systems. However, it must be emphasized that both instruction and assessment systems must be seamlessly integrated for student needs to be met.

To effectively achieve integration, assessment items should be available within a content management system that contains a variety of learning objects that can be easily and effectively integrated into learning management systems. Assessment items are one aspect of the overall 8-step instructional process integral to the instructional learning program. The following visual shows the relationship of learning objects, a content management system and learning management system. Open standards provide the ability to connect both instructional and assessment systems together with the learning management system to create one, seamless system to access all the student, teacher, and administrator data needed in education today.


A variety of learning objects are available through a content management system. A federated search engine would enable content to be selected and put into a variety of instructional and assessment applications
Essay Questions
Assessment Items
Rubrics
Lesson Plans
Content Management System
Activities
Video Clips
Common Core Standards
Filtered through a federated search engine
Accessible through a Learning Management System which includes both instructional management and assessment management

Recommendations:

1. Consider an approach that connects three systems that interact and work together to provide the data, content and services needed seamlessly to the end user. The three key systems would be a content management system, a learning management system and an assessment system with a federated or enterprise search engine that crosses all three systems. The diagram above gives a simplistic visual of this idea.

2. The **IMS Global Learning Consortium** is a K-20 collaborative group that is developing standards that address the needs of education. These standards would contribute to interoperability for assessment systems**.** The following web site provides information on the standards and the institutions that are currently endorsing these standards. http://www.imsglobal.org/specifications.html. It is recommended that these standards be included.

3. The following standards are endorsed by **the Consortium of School Networking (CoSN)** and should be included in the specifications:
School Interoperability Framework Association (SIF)
The IMS Global Learning Consortium
Advanced Distributed Learning (ADL)
Sharable Content Object Reference Model (SCORM)
Open standards refer to the conventions and rules for interoperability and data exchange. Standards provide specific methods for connecting, tagging, and exchanging information.

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