While education institutions across the P-20W (early learning through postsecondary and workforce) environment use many different data standards to meet information needs, there are certain data we all need to be able to understand, compare, and exchange in an accurate, timely, and consistent manner. For these, we need a shared vocabulary for education data – that is, we need common education data standards. The Common Education Data Standards (CEDS) project is a national collaborative effort to develop voluntary, common data standards for a key set of education data elements to streamline the exchange, comparison and understanding of data within and across P-20W institutions and sectors.

The “CEDS in the Field” series of briefs addresses various ways that different data stakeholders are using CEDS and its associated tools. CEDS is built in a way to support a variety of implementations that are all different; there is no one way to “use” CEDS. This brief focuses on how a collaborative working to create a common metadata framework for tagging learning resources used CEDS as a tool to extend the Learning Resource Metadata Initiative to the Common Content Tagging Initiative.

About the Common Content Tagging Initiative

Race to the Top grants required each award winning state to develop Instructional Improvement Systems (IIS), technology-based tools and other strategies that provide the state’s teachers, principals, and administrators with meaningful support and actionable data to systematically manage continuous instructional improvement.\(^1\) One component of each state’s IIS is a collection of instructional resources, professional development resources, and assessment items compiled by the state, available for use by the state’s local education agency staff. In order to populate this portion of the IIS, each RTTT state would develop its own collection of resources, individually going through the process of identifying and developing a cataloguing system in order to make them searchable.

Instead of each state being limited to the resources it could catalog, a group of Race to the Top states agreed to share open education resources suitable for inclusion in each state’s IIS. The Common Content Tagging Initiative came out of this collaboration. In order to make each electronic resources searchable by the IIS, it is necessary to attach descriptors, or metadata, to it. However, if a resource is to be used across multiple states’ IIS, the information used must have a common framework so that the descriptions, or tags, assigned to the resource have the same meaning across states. Through support from the Reform Support Network, a collaborative of 11 states have come to consensus on:

1. A common set of meta-tags
2. The values to be used within those tags
3. The definitions to be used by the states for the above tags and values

Participating states in the Common Content Tagging Initiative include:

- Arizona
- Colorado
- Delaware
- Georgia
- Illinois
- Massachusetts
- New Jersey
- New York
- North Carolina
- Ohio
- Rhode Island

Common Education Data Standards is a Common Content Tagging Initiative Tool

States involved in the Content Tagging Initiative didn't have to start from scratch in building a dictionary for the metadata tags, values, and definitions. The Learning Resource Metadata Initiative (LRMI) had already defined standards for tagging web-based content, informed by other standards such as the Dublin Core Metadata Initiative. CEDS version 3 had adopted data element definitions compatible with the LRMI tags, and added value with option sets for those elements. CEDS version 4 further refined the common vocabulary for learning resource data elements with input from the Common Content Tagging Initiative.

The states participating in the Common Content Tagging Initiative have adopted these CEDS version 4 standards (with some state-specific extensions) to create a common dictionary of tags, values, and definitions. Each state is using this dictionary to tag the content in their own state repositories, which will align with the metadata tags in the other participating states. Because the tags are based on a common dictionary, these resources can easily be shared across states, creating a diverse catalogue of resources that no one state could have provided.

Discussion

Rather than create a system from scratch, the eleven states participating in the Common Content Tagging Initiative were able to build on the existing work of the Learning Resource Metadata Initiative, and utilized the Common Education Data Standards as a starting point to extend the existing elements, definitions and option sets. Using the CEDS elements, definitions and option sets to create metadata tags for the resources in states’ Instructional Improvement Systems did NOT require any of the states to adopt all of the CEDS standards. CEDS simply provided the cooperating states with a common vocabulary in the development of metadata tags. It was a starting point for agreement on a set of common values for each meta-tag as well as definitions for those values. While some states also have used CEDS as the common data vocabulary for other parts of their Instructional Improvement Systems, wholesale adoption by the state is not required in order create tags, nor to use the tagged resources.

For More Information


For more information on the Learning Resource Metadata Initiative, go to http://www.lrmi.net.

For more information on the Dublin Core Metadata Initiative, go to http://www.dublincore.org.

For more information on the Common Education Data Standards (CEDS), to explore the standards, or interact with any of the associated tools, please visit https://ceds.ed.gov.