**Next Generation Standards Alignment
of Digital Education Resources**

**Background and Summary of GIM-CCSS Technical
Documentation Version 1.0**

The State Educational Technology Directors Association (SETDA) is committed to assisting state and district education leaders, publishers, and educational software developers with ensuring high-quality alignment of digital K-12 education resources to state-adopted academic content standards. We believe that information about standards alignment of digital education resources must be rigorous, transparent, useful and freely available to educators and the public.

Background

In June 2012, SETDA launched a project ("Granular Identifiers and Metadata for the Common Core State Standards" or GIM-CCSS) in partnership with the Partnership for the Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (Smarter Balanced) – and in collaboration with the Council of Chief State School Officers – to design and implement an approach to digitally encode the Common Core State Standards (CCSS) to meet the K-12 field's needs for high-quality alignment of instruction, assessment, and professional learning resources.

The GIM-CCSS project served as the launching point for important cross-consortium work and inter-state dialogue on this topic and contributed to significant technical advances over the current state-of-the-art in standards alignment. However, due to the evolving needs of the consortia and substantial disagreements among academic content standards experts advising the project about to how to encode the CCSS, the deployment of the solution was deferred to allow each consortium to resolve disagreements about that encoding consistent with their respective specifications.

Given that the technical work in designing an approach to digitally encode the CCSS remains of interest to state and district education leaders, publishers, software developers and educators, we are pleased to publish the GIM-CCSS

technical design documents under an open license to allow re-use and further development. Importantly, the technical approach is broadly applicable to any academic content standard and would offer important advantages today to those who choose to deploy it.

Technical Documentation

The following documents are available free of charge under a CC-BY license:

Rehak, D. (2013). Scope, Technical Requirements, Approaches, and Recommendations: Granular Identifiers and Metadata for CCSS (GIM-CCSS) Project. Version 1.0. Washington, DC: State Educational Technology Directors Association (SETDA).

> This document outlines key technical issues, requirements and solution approaches for the various aspects of the Granular Identifiers and Metadata for CCSS (GIM-CCSS) Project. It presents recommendations for a technical solution broadly applicable to the encoding of any learning standards statement.

Available online in PDF format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1756.pdf

Available online in DOC format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1763.doc

Rehak, D. (2013). Learning Standards Digital Representation Specification: Publishing Agent Design and Requirements: Granular Identifiers and Metadata for CCSS (GIM-CCSS) Project. Version 1.0. Washington, DC: State Educational Technology Directors Association (SETDA).

> This specification presents the design and requirements for a "Publishing Agent" and a "Publishing Organization" – a computing environment and the organization that operates it – that supports the process of making the digital representation of a learning standards statement available on the Internet for anyone to access and use.

Available online in PDF format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1757.pdf

Available online in DOC format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1762.doc

www.setda.org

Rehak, D. (2013). Learning Standards Digital Representation Specification: JSON Serialization Schemata: Granular Identifiers and Metadata for CCSS (GIM-CCSS) Project. Version 1.0. Washington, DC: State Educational Technology Directors Association (SETDA).

This document specifies the schemata for the JSON serialization of a learning standards statement. It includes the:
- Learning Standards Statement Schema – Schema for a single learning standards statement.
- Learning Standards Statement Collection Schema – Schema for a collection of learning standards statements.
- Vocabulary Schema – Schema for a vocabulary.

Available online in PDF format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1758.pdf

Available online in DOC format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1760.doc

Rehak, D. (2013). Learning Standards Digital Representation Specification: RESTful API: Granular Identifiers and Metadata for CCSS (GIM-CCSS) Project. Version 1.0. Washington, DC: State Educational Technology Directors Association (SETDA).

This document specifies the RESTful Application Programming Interface (API) that can be used to access or publish the digital representation of learning standards statements. The API permits standards statements to be published and accessed through a Published Agent or other software application. API methods include:
- Retrieving the digital representation of learning standards statements (one or more) represented in either the JSON or XML encodings.
- Publishing and updating the digital representation of learning standards statements using the JSON encoding.

Available online in PDF format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1755.pdf

Available online in DOC format at:
http://setda.org/c/document_library/get_file?folderId=371&name=DLFE-1761.doc

While many state and national experts provided their valuable input into the development of GIM-CCSS technical products, SETDA retains sole responsibility for their contents. They are made available to interested parties 'as is' and with no representations, express or implied.

SETDA would like to thank the generosity of multiple funders, including the Bill & Melinda Gates Foundation, the Carnegie Corporation of New York, and the William & Flora Hewlett Foundation, for the support to conduct and release this important work.

Questions may be addressed to Douglas Levin, SETDA executive director, at dlevin@setda.org or 202-715-6636 x700.