



Center for Natural Language Processing

CNLP

The Center for NLP is a busy research center, situated in the School of Information Studies, the "Original Information School", whose degree programs and faculty are top-ranked by national panels. In the spirit of Syracuse University's motto of A Student Centered Research University, CNLP provides a rich environment in which graduate students learn and work with faculty and technical staff on supported research for both government and corporate funders.

Mission

The mission of the Center for Natural Language Processing is to advance the development of human-like language understanding software capabilities for government, commercial, and consumer applications.

Objectives

- To conduct leading-edge research and development in Natural Language Processing and its most promising applications.
- To secure significant government funding from those organizations that have shown vision in the field of Natural Language Processing and have provided substantive funding to back that vision.
- To work collaboratively with a wide range of partners to bring the Center's research into full play for a broader spectrum of users.
- To provide meaningful research opportunities to the School of Information Study's community of scholars, including faculty, graduate students, and post

Computer-Assisted Content Standard Assignment & Alignment

Since passage of the *No Child Left Behind Act of 2001*¹, there has been a marked increase in emphasis on the design of K-12 curricula around existing and emergent state and national content standards. Public educators now seek to demonstrate that classroom activities and curriculum materials that are selected will build competencies embodied by the standards. In response, K-12 content providers are being asked to align their resources with the content standards of each state. While there is a strong movement to develop new educational resources to bring students to the competencies represented by the standards, it is recognized that there are vast repositories of educational resources already developed that are suitable to address those competencies. But these resources need to be indexed by national and state standards to make them accessible for teachers who must teach to certain standards.

Based on study results on the importance of state standards and the fact that manual assignment and alignment are extremely time consuming, we conclude that there is a serious, well-documented need for both computer-assisted content standard assignment and alignment services. Such services would provide a plethora of resources that have both national and state content standards assigned to them, thereby substantially increasing the value to teachers of both the resources that are already in the NSDL, or will be continuously added. And while we are not proposing a Selection Service, what we are proposing is focused on the same goal – “increasing the amount of high-quality STEM educational content known to NSDL users”.

Our contribution towards addressing this need will be two tools to make the content that already is, or will be, provided by NSDL partners more effectively accessible to STEM teachers. Our vision is that eventually each NSDL resource’s metadata record will include a searchable and viewable “conformsTo” refinement for “Relation” in Dublin Core metadata, indicating both the appropriate national standard, as well as the standard for the state where the teacher will use that resource.

Project Goals

In response to this need, we propose to develop two services for collection providers and Pathways Projects:

- 1) A computer-assisted standards assignment tool, utilizing the technology developed and the lessons learned in our NSDL StandardConnection Project, for auto-suggesting national standards and benchmarks for substantive numbers of educational resources in the NSDL;
- 2) A methodology and technology for automatically aligning state standards to selected national standards in order to dramatically improve the ability of teachers to locate resources in the NSDL that will support their standards-based instruction, no matter what state they are in or where a resource was developed.

¹ H.R.1, Public Law No: 107-110, Section 1001 Statement of Purpose