

# Search4STEM™: A “one stop” knowledge access system/connector

Science, Technology, Engineering, Mathematics

Despite the urgency to improve STEM education because of its critical role in the future of the states’ and national economy, there has been no comprehensive system for connecting people/effective programs and materials or providing key information about STEM resources for parents, students, teachers, educational leaders, businesses and other stakeholders.

Yet, tens of millions of dollars are appropriated every year for STEM initiatives throughout the nation. The STEM data warehouses, inventories and other resource lists which exist are disconnected, disparate and difficult to use. There should be a single site where interested parties can access information about all programs, projects, products, initiatives, collaborations, career information and services in STEM education, pre-Kindergarten through higher education, and connect with other interested people.

We are developing a searchable and interactive knowledge exchange /connector to coordinate available STEM resources and bring them to end-users to support PK-20 teaching and learning to improve STEM education outcomes. Inclusion in the portal will be determined by a set of criteria including quality. The system will contextualize the content. Users will not have to hunt to find responses that match their inquiries nor will they be overwhelmed by the response.

The functionality and attributes of this “one stop” STEM portal/ clearinghouse/system are:

1. High quality STEM content organized by comprehensive and comprehensible criteria
2. Single user interface /on-demand access
3. Easy personalized access/ personalized searching capacity
4. Networking/community functionality
5. A suite of publishing tools
6. Sustainable design/continuous updating
7. Alignment with standards
8. Ease of use

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We have been told that the project responds to current and future needs and has great value by the following educational and business professional organizations: MASCD, MASS, MassCUE, CELT, Google and CSSO. The Mass Life Sciences Center has provided us with startup funding.

The prototype will be tested in Massachusetts and when proven successful we will make it available nationwide, starting with Iowa.

We expect that the site will evolve continuously as new information is added and tools change. In addition, because we intend to leverage existing sites and sources, we will not “reinvent the wheel.”

We expect to roll out v1 at the MA STEM Summit in October 2012.