

STEM Exchange Value Propositions

Posted 05/07/2010 (Van Gundy)

Potential Benefits to STEM Education Communities

Education Practitioners Including Teachers, Curriculum Developers, and Teacher Educators. The rich contextual information afforded by this model will assist educators in selecting appropriate resources and incorporating them into lesson plans, slide presentations, learning management systems, and interactive whiteboard applications. The educator dialogue around the resources will facilitate sharing of best practices for integrating digital content in classroom and professional development settings.

Students. Currently, there is little opportunity for student engagement around assessing and improving the educational value of digital content. The open-source and Web 2.0 approaches to the Exchange could enable and encourage student commentary, resource discovery, and mashup.

Educational Services Providers. With current methods for sharing metadata between digital libraries and with third-party service providers, it is difficult to select subsets of NSDL resources from across multiple collections. The Exchange will be structured to facilitate a range of new methods for sharing resources out of NSDL and into other tools and platforms.

Resource Developers and Providers. This approach will expand opportunities for targeted dissemination of resources to particular audiences and create dynamic feedback loops to engage users. The focus of the model on facilitating diffusion of resources into education practice also has the potential to enable new methodologies for tracking resource use and remixing, and for measuring how digital content diffuses through STEM education communities.

Educational Researchers, Funding Agencies, and Policymakers. The Exchange can serve as a research platform for observing emerging practices around digital learning resources, as a test bed for individual materials and strategies, and as an observation platform for systemic trends in cyberlearning.