Preventing Preservice Teachers via a Mathematics Dynabook

As digital textbooks become commonplace, can teaching and learning improve?

Classrooms of preservice teachers at San Francisco State and San Diego State Universities are getting a unique opportunity to explore the intersection of mathematics content, pedagogy, and technology through SRI International’s Dynabook project. Inspired by the pioneering vision of Alan Kay and the possibilities of today’s social media and interactive book technologies, Dynabook is investigating the co-emergence of new forms of mathematics literacy and new digital resources for supporting mathematics teaching and learning. In one signature activity, teachers compare and contrast digitally enacted “scripts” they have written for engaging a student struggling with ratio, identifying ways to address common core process standards. By comparing scripts, teachers rethink their own sense of ratio, how dialogue can engage students making sense of ratio, and how interactive tools and representation can support diverse learners. Now in its third project year, the Dynabook team is building a broader network of teacher educators to work with. If you would like to join this network, please contact: mphillips@inverness-research.org.

SRI Assists with the Development of a Federal Learning Registry

The Learning Registry makes digital learning resources easier to find, easier to access and easier to integrate into learning environments.

SRI is participating in the development of the Learning Registry, an informal collaboration among several federal agencies that share the same goal: making digital learning resources and primary source materials easier to find, access and integrate into educational environments. Working with the U.S. Department of Education’s Office of Educational Technology and the DoD’s Advanced Distributed Learning Initiative, in addition to other contributors, we’re collaborating on the development of a simple and inexpensive system for distributing information about learning resources and their uses.

The Learning Registry concept is based on a social model of sharing and interaction among users. The Learning Registry will alleviate the problem of disparate standards for describing resources by changing the business model for suppliers from hand-curation of descriptive data (the “library model”) to tapping data streams from social networks and learning management systems (among others) to locate and identify resources (the “recommender model”). The Learning Registry will make resources easily available, share information about their usage and enable filtering to help users find their most relevant content. Learn more.

Read about Barbara Means’ Research on STEM Schools in the Ed Week article "New STEM Schools Target Underrepresented Groups"

Barbara Means, SRI's Co-Director for the Center of Technology in Schools Target Underrepresented Groups"
Learning, was interviewed by *Education Week* for the article “New STEM Schools Target Underrepresented Groups.” Ms. Means talks about STEM schools’ different approaches to STEM education, evidence of STEM school effectiveness and a future long-term study, funded by NSF, on STEM schools that target underrepresented populations. Read the article.

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**Watch Jeremy Roschelle’s talk “Helping Scientists Engage the Next Generation”**

We all know that our world needs many more students to learn science much more deeply. And many of us believe that technology will inevitably be part of the solution. Beyond these agreements, however, we often face a confusing array of claims about HOW technology could improve learning: make learning fun; teach students through games; personalize learning objects; allow anyplace/anytime instruction; use iPads for anything; blog this, twitter that, and facebook in your free time, etc. Scientists who make the commitment to dedicate time to education deserve the advantage of a stronger knowledge base than this. In this talk, I will review the fundamental discoveries that have accrued in the learning sciences over the past 20-30 years, in a condensed, high level form that is eminently usable in teaching practices. Watch now.

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**Effective Technology**

Today's world makes a burgeoning array of technologies available to classrooms, ranging from graphing calculators to computers and electronic whiteboards. This paper, co-authored by Jeremy Roschelle, provides the latest information from research and experience to guide teachers and leaders in the strategic use of technology in the classroom. Read the [paper](http://ctl.sri.com/news/newsletter_sept_2011/sept_2011_news.html).

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**Coming in our January Issue!**

SRI, the University of South Florida St. Petersburg, and the Pinellas County School district in Florida are teaming up to dramatically improve middle school math education. This multi-year collaboration was just awarded a Next Generation Learning Challenge award to build upon their past success and increase the scope of their work to reach more teachers and students in Pinellas.

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