

E-Professional Development

Science Objects, SciPacks and The NSTA Learning Center

Al Byers
Assistant Executive Director
Government Partnerships and e-Learning

The National Science Teachers Association

The NSTA's Mission:

To promote excellence and
innovation in Science
Teaching and Learning for All

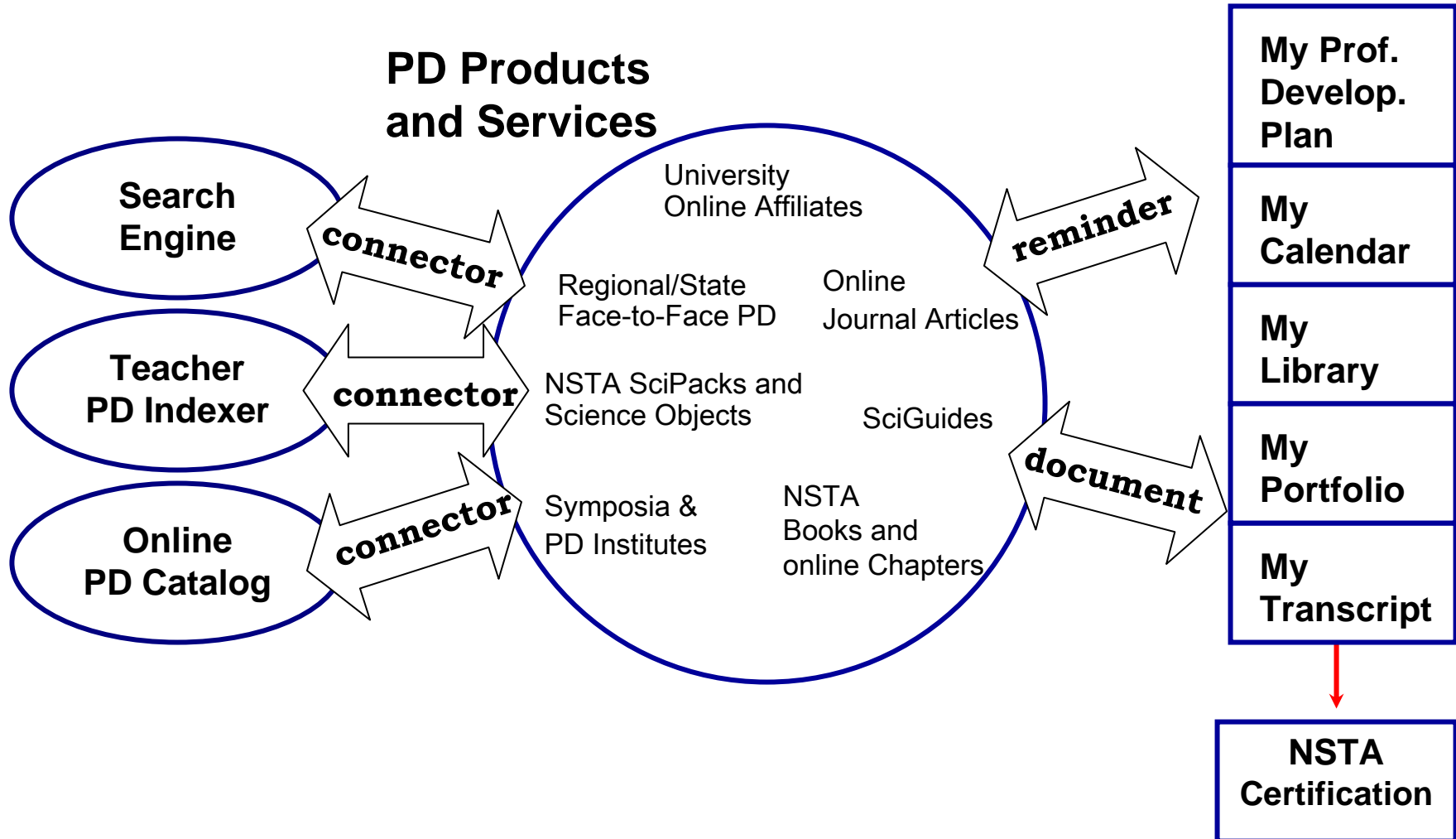
The Issues:

- Science
- Scale
- Sustainability



CBR Perspective: Year 1 MSP Projects invested 100 million dollars. Half of 361 project reported serving 48 or fewer teachers with over 50% projects costing \$250,000 or more. 49,500 total teachers affected. 2006: \$183 million for 500 projects

NSTA's e-PD Solution: The NSTA Learning Center



Life Science

- Cell Structure and Function
- Cell Division and Differentiation
- Cells and Chemical Reactions
- Regulation and Behavior of Organisms
- Heredity and Variation
- Biological Evolution
- Natural Selection
- Interdependence of Life
- Flow of Matter and Energy in Ecosystems
- Resources and Human Impact

Earth and Space Science

- Earth, Sun and Moon
- Gravity and Orbits
- The Solar System
- The Universe
- Weather and Climate
- Earth's Changing Surface
- Earth's History
- Rock Cycle
- Plate Tectonics

Physical Science

- Magnetic and Electric Forces
- Force and Motion
- Nature of Light
- Energy
- Elements, Atoms and Molecules
- Atomic Structure
- Chemical Reactions

The Proof is in the Pilots

3 District Pilot Tests

- Three Districts in 3 states
 - Charlotte-Mecklenburg, NC
 - Omaha Public Schools, NE
 - Everett Public Schools, WA
- Blended f2f and online only
- Participants Feedback
- Independent third-party pre/post assessment instrument
- Final embedded assessment

The Proof is in the Pilots

3 District Pilot Tests

Participant Feedback very confident in their abilities to teach the subject matter:

7%: *Before* completing F&M SciPack

60%: *After* completing F&M SciPack

- **98%:** Found SciPack content relevant to their needs
- **96%:** Would recommend SciPack to their colleagues
- **98%:** Found interactive sims worthwhile to their learning

The Proof is in the Pilots

3 District Pilot Tests

Pre/Post Assessment and Final Assessment Results

- Horizon Research, Inc. Instrument: positive significant gains in learning between pre/post test results
- Final Assessment: **92%** passed the final assessment

Current and Future Pilots

- State of West Virginia Pilot
- Tri-state Pilot: VT-NH-RI

For a beta preview of the NSTA Learning Center

<http://learningcenter.nsta.org>

Al Byers

abyers@nsta.org

PH: 703-312-9294

The screenshot displays the NSTA Learning Center Beta Release website. At the top, the logo for 'The NSTA Learning Center' is shown with 'BETA RELEASE' in the background. A 'Quick Search' box is located in the top right corner. Below the logo is a navigation menu with links for Home, My Account, Products & Opportunities, Advanced Search, Browse by Subject, Give Us Feedback, and Help.

The main content area is divided into several sections:

- LOGIN HERE ::** A login form with fields for Email and Password, a LOGIN button, and a Remember Me checkbox. Below the form are links for 'New user? Register here.' and 'Lost password? Recover it here.'
- FEATURED TOPICS**: A list of topics including Force and Motion, Gravity and Orbits, Plate Tectonics, Universe, Solar System, Earth, Sun, and Moon, Energy, Rocks, and Corals.
- CURRENT TOOLS**: A list of tools including My Library, My Notepad, and My Transcript.
- FUTURE TOOLS**: A list of tools including My Professional Development Plan, Certification, My Personal Portfolio, and My Calendar.
- HOW CAN THE LEARNING CENTER HELP YOU?**: A section titled 'Welcome to The NSTA Learning Center Beta Release' with a photo of a smiling woman. The text describes the center's goal to provide a one-stop professional development shop for busy teachers. It includes a 'Learn More' link.
- FEATURED PRODUCTS**: A section with two columns:
 - SCIENCE OBJECTS**: Describes discrete, online learning experiences designed to enhance teachers' understanding of a small set of particular ideas. Includes a 'Learn More' link and a puzzle icon.
 - JOURNAL ARTICLES**: Describes NSTA's award-winning, peer-reviewed journals geared to the specific needs of science teachers at every level. Includes a 'Learn More' link and a photo of a journal cover.
- BROWSE BY SUBJECT**: A list of subjects including Earth and Space Science, Physical Science, and Life Science.
- BROWSE THE JOURNALS**: A list of journals including Science & Children, Science Scope, The Science Teacher, and Journal of College Science Teaching.
- NSTA SCIGUIDES**: Describes lists of pre-selected websites designed to help users teach key subjects. Includes a 'Learn More' link.
- BOOK CHAPTERS**: Describes selected chapters from NSTA Press Books available in PDF format. Includes a 'Learn More' link.
- WE WANT TO HEAR FROM YOU!**: A section encouraging user feedback, stating 'We look forward to, and need, your feedback as this home base is a dynamic, growing'.